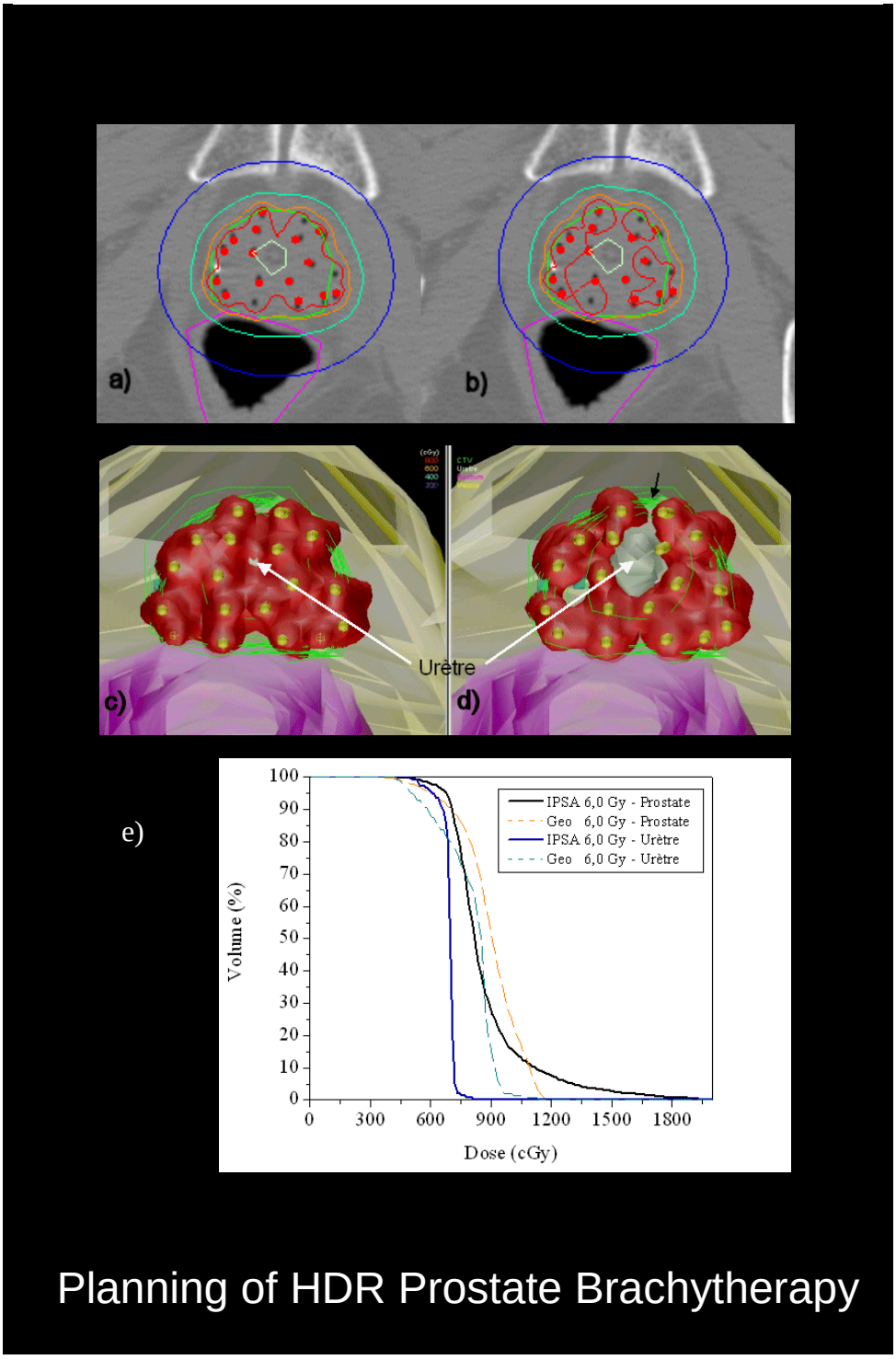
InterACTIONS

CANADIAN MEDICAL PHYSICS NEWSLETTER
Le BULLETIN CANADIEN de PHYSIQUE MÉDICALE



Planning of HDR Prostate Brachytherapy

COMP OCPM

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CANADIAN COLLEGE OF PHYSICISTS IN MEDICINE
LE COLLÈGE CANADIEN DES PHYSICIENS EN MÉDECINE

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About our Cover

The figures depict a comparison between two optimization methods for temporary HDR prostate implants. The "traditional" geometric optimization is shown in panels a) and c) while a new inverse-planning algorithm, IPSA - Inverse Planning by Simulated Annealing, results are presented in panels b) and d) (Med. Phys. 28 (2001) 773). For similar overall target coverage, the protection of the organ at risk provided by the constraints imposed by the IPSA algorithm is readily seen. The urethra is completely covered by the 800 cGy isodose line (800 cGy in red, 600 cGy in orange, 400 cGy in light blue and 200 cGy in dark blue) for the geometric optimization, while it is excluded in IPSA. This can be further appreciated in panels c) and d) where the 800 cGy isodose surface (red) is now displayed. The urethra protection is also obvious on a dose-volume histogram (panel e) with a sharp decrease beyond the prescription dose of 600 cGy for IPSA. Since dose to the urethra is a limiting factor, our results indicate that the prescription could be raised significantly with IPSA, and still have equivalent urethra dose than with a geometric optimization plan delivering less dose to the prostate (D. Béliveau-Nadeau, M.Sc. Thesis). The optimization time is below 1 minute. This is a major development for the planning of HDR prostate brachytherapy.

Images courtesy of Dr. Luc Beaulieu
CHUQ-Pavillon Hôtel-Dieu de Québec

The Canadian Medical Physics Newsletter, which is a publication of the Canadian Organization of Medical Physicists (COMP) and the Canadian College of Physicists in Medicine (CCPM) is published four times per year on 1 Jan., 1 April, 1 July, and 1 Oct. The deadline for submissions is one month before the publication date. Enquiries, story ideas, article submissions can be made to:

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Please submit stories in Publisher 98, Word 6.0, Word 97, or ASCII text format. Hardcopy submissions will be scanned to generate an electronic document for inclusion in the Newsletter. Images in Tiff format at 300 dpi resolution are preferred.

Advertising and corporate enquiries can be made to:

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Message from the COMP Chair:

This year's annual meeting … will be held in conjunction with the AAPM at the Palais de Congrès de Montréal from July 12-14, 2002.

The major activity since my last Message is essentially the organization of this year's annual meeting, which, as you already know will be held in conjunction with the AAPM at the Palais de Congrès de Montréal from July 12-14, 2002. The Canadian Nite-out will be held on Sunday Night, July 14, 2002, in the time-slot that had been vacated when the AAPM had decided to cancel their Sunday night Icebreaker. The holding of the Canadian Nite-Out on this evening would avoid any conflicts with other activities held by the AAPM. Both Sherry Connors and Michael Henry are getting things together as the Local Arrangement Committee. Sherry is organizing the day-to-day issues while Mike is pursuing Corporate sponsorship. You have already been informed via the e-mail that all registration and submission procedures are to be processed through the AAPM website.

The Young Investigator's Symposium will be an AAPM activity, to which the Canadians will have access to. There will be some designated Canadian content at the meeting. One of the seminars would involve a general overview of the Canadian Synchrotron Light Source.

An important issue has come up related to a draft to Revision of The Engineers and Geoscientists Act prepared by the APEGBC (Association of Professional Engineers and Geoscientists of British Columbia) in British Columbia. This has to do with the definition and responsibilities of professional engineers and how it is related to physicists in general, and medical physicists, in particular. There has been some communication about this item with the Canadian Association of Physicists (CAP) and with our medical physics colleagues in BC. Our Executive Director was also been very active in gathering information about this issue. It is obvious that COMP agrees with the CAP concerning the recognition that scientific acts are different from engineering acts. A letter has been sent from the Executive Director (COMP/CCPM) to the APEGBC and the responsible BC government office outlining the COMP/CCPM's position on this issue. Our BC medical physics colleagues and the CAP have also drafted individual letters to the concerned parties stating their positions. We have acted quickly on this issue and have been in constant communication with the CAP and our BC medical physics colleagues. We will continue to monitor the situation, and ensure that medical physics activities remain within the realm of medical physicists as defined by COMP.

B.G. Fallone, Chair of COMP
April, 2002

Message from the CCPM President:

You will be happy to read that this is my penultimate message, as you will soon be receiving your words of wisdom from Brenda Clark, once she is ratified as President at the next AGM in July.

The activities of the College are continuing quite well along the lines I have discussed in the past messages. The move to the Web

for the distribution exam booklet and membership application forms has worked very well. The process for vetting and approving the applications went very smoothly; congratulations to the registrar and to the review committee for their work. It looks like we will have a record number of applicants writing their membership exams this year. The Board will be finishing the CCPM policies and procedures documents as I write; and these will provide a valuable handbook for new Board members as they take on their tasks. We are hoping that this documentation that was initiated by Peter Dunscombe awhile back will help us make the transition between officers of the College much easier when new officers take on their duties.

The representation at CAMPEP by Brenda Clark and Peter Dunscombe has been a resounding success. Canadian medical physicists are now strongly represented in the organization that accredits educational program. As an indication of the inroads that we have made, Brenda Clark began her term as vice-president of CAMPEP effective January 1 of this year.

One of the most visible functions of the College is through our work on the CCPM Medicine Mammography Accreditation Committee. This committee helps in the training and accreditation of reviewers for mammography centers. The committee has had a bolus of new members to assist in the work and I'm happy to announce that M. Alain Gauvin of Hopital Hotel Dieu du CHUM, Montreal, is now the Chair of the Committee. Dr. Martin Yaffe, Dr. Ian Cunningham and Mr. Cupido Daniels continue to provide their expertise on the Committee. Mr. Gord Mawdsley and Dr. Rasika Rajapakshe have also joined. This reinvigorated committee has been asked to make the activities of the group clearer and to reestablish lines of communications with the Board, the medical physics committee and the Canadian Association of Radiologists. I'd like to take this opportunity to thank Martin, Cupid, Ian and M. Raymond Carrier for the excellent work that they did in establishing this committee a few years back (when the CAR approached the College for assistance) and for their continuing work in this endeavour.

As I reported last issue, recertification went very well last year. I want to mention one feature of the process that came clear as we reviewed the credentials of last year's applicants. The bylaws clearly state the steps that one must take to accumulate the 50 credits required for recertification within five years. At the time the credit scheme was proposed, it was thought that it should be no problem for any clinical physicist in the country to maintain their certification. Having said this, I wish to remind all members that they will have to maintain some continuing medical education (CME) to ensure that their recertification goes smoothly. I would also ask that heads and chiefs of medical physics departments take some time to ensure that their colleagues are, in fact, undertaking some CME activities so that recertification is not a problem. We are in an age when professionals are expected not only to perform their jobs but also to keep up with developments in their fields by actively pursuing CME activities. Please ensure that you and your colleagues are taking these steps. I would ask you to review the bylaws to make sure that you are taking advantage of the opportunities within your environment to collect your credits. While I am on this topic, I will remind you that people who are at their five, ten, fifteen or, perhaps, twenty year anniversaries this year, (i.e., who became members or fellows in years ending in 02 or 07) will be required to apply for recertification this year. We have not been able to get those forms on the Web presently but you will be getting a

(Continued on page 64)

I believe the greatest present risk to the College and the Canadian Organization of Medical Physicists is what I perceive to be general lack of interest in the organization by young physicists in Canada

Message from the Executive Director of COMP/CCPM

If any member of COMP or CCPM are aware of legislative or policy issues that could affect the profession, please contact me or a member of the executive or board

Medical Physics faces many challenges in 2002. As our country wrestles with health reform, the role of medical physicists and the need for increased research support and increasing the number of people on the path to becoming medical physicists needs more profile.

To this end, your executive has registered for an opportunity to speak to the Romanow Commission on the Future of Health Care in Canada. We expect to make that submission prior to the Montreal AGM. We intend to speak to the role of medical physics and to the need for increased research funding commitments and support for students studying medical physics.

COMP is arranging a meeting with the new Health Minister, The Hon. Anne McLellan. With the national focus on health care and the future, it is timely for your executive to meet with the Minister to make sure issues affecting medical physics are considered in that process.

Another major issue facing the profession is the issue of scope of practice and the relationship with other disciplines and professions. Recently, Clement Arsenault alerted the executive and board that the Association of Professional Engineers and Geo-Scientists of British Columbia (APEGBC) had developed a draft revision of the Engineers & Geoscientists Act (British Columbia). The draft includes definitions that, in our opinion, could lead to the Act being applied to the work of Medical Physicists. This is clearly an infringement on the medical physics profession and not in the public's best interest.

COMP and CCPM is working to ensure the proposal is revised to ensure that the Act does not apply to the work of our members. Representation has been made to APEGBC and the British Columbia government and we are working parallel with CAP to ensure that the appropriate changes are made. We are confident that we will be able to clear up this misunderstanding in short order. COMP and CCPM are prepared to take further action if needed.

As national professional organizations, COMP and CCPM have a direct interest in legislation and public policy not only at the national level, but at the provincial level as well. We rely on our network of members to alert the association and college to issues and actions at the provincial (and national) levels. If any member of COMP or CCPM are aware of legislative or policy issues that could affect the profession, please contact me or a member of the executive or board and we can ensure that the profession of medical physics is appropriately represented.

In this edition of *Interactions*, you will find a COMP bylaw change proposal put forward by the COMP secretary, Alanah Bergman. It was necessary to change the

registered head office of COMP from Calgary to Edmonton (the current site of the Executive Director and Secretariat). The process is somewhat cumbersome and the proposed change simply gives the executive more flexibility in determining the site of the registered head office. With the proposed change of bylaws, the executive will be able to change the head office location without a bylaw change. If you have any questions about this change, please contact Alanah Bergman or myself.

Our joint meeting with AAPM in July is fast approaching. You will hear more from us as we approach July. I look forward to seeing you in Montreal!

Michael Henry
Executive Director
COMP/CCPM

HAROLD JOHNS TRAVEL AWARD

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. This award, which is in the amount of $1500, is made to a College member under the age of 35 who became a member within the previous three years. The award is intended to assist the individual to extend his or her knowledge by traveling 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.

Further information can be obtained from:

BOURSE de VOYAGE HAROLD JOHNS

Le Conseil du Collège Canadien des Physiciens en Médecine est heureux d'honorer son président fondateur en offrant aux jeunes chercheurs la bourse Harold Johns. Cette bourse, d'une valeur de $1500, est éligible aux membres du Collège agés de moins de 35 ans at qui sont membres depuis moins de trois an. La bourse a pour but d'aider le récipiendaire à parfaire ses connaissances dans son domaine ou à démarrer dans un nouveau champ d'activités reliées à la physique médicale, en lui permettant de voyager vers un autre centre spécialisé.

Les demandes seront addressées à:

Dr. Christopher Thompson
The Registrar / Le Resistraire
CCPM
c/o Montreal Neurological Institute
McGill University
3801 University, WB3
Montreal, Quebec, H3A 2B4

The deadline for applications for the next award is **May 1, 2002**. The award will be announced at the 2002 CCPM Annual General Meeting in Montreal.

La date limite pour les demandes du prochain concours est le **1er mai 2002**. Le récipiendaire de la bourse sera annoncé à la rencontre annuelle de 2001 du CCPM à Montreal

Past recipients:

Récipiendaire anterieur:

1990 Dr. L. John Schreiner, Montreal
1991 Ms. Moira Lumley, Kingston
1992 Dr. Donald Robinson, Edmonton
1993 Dr. Yunping Zhu, Toronto
1994 Dr. Brendan McClean, Edmonton
1995 Dr. George Mawko, Halifax
1996 M. Alain Gauvin, Montreal
1997 Dr. Katherina Sixel, Toronto
1998 Mr. Horacio Patrocinio, Montreal
1999 Mr. Craig Beckett, Regina
2000 No recipient
2001 No recipient

Members of the COMP and/or CCPM can make a donation to the fund by volunteering to increase their 2002 membership dues.

Les membres du COMP et\ou OCPM peuvent faire un don à la cotisation de 2002 un montant additionel de leur choix.

CANADIAN COLLEGE OF PHYSICISTS IN MEDICINE

NOMINATIONS TO THE BOARD

As immediate Past-President of the Board of the Canadian College of Physicists in Medicine my only residual duty is to chair the Nominating Committee which is struck to fill Board vacancies arising from time to time. The Nominating Committee is established according to the Constitution and Bylaws of the College which you can find in the back of our Directory. This year Dr. Alistair Baillie will be leaving the Board after serving the maximum of two four year terms. The Nominating Committee charged with finding a replacement for Alistair comprises John Schreiner, Clement Arsenault and myself. In considering which name to place before the membership for ratification at the Annual General Meeting, the Committee must strive to maintain a composition on the Board which reflects the composition of the membership as a whole. The Committee must therefore be sensitive to such issues as sub-specialty, geography and other relevant factors. At this time we are asking you to suggest the names of individuals who you feel could make a significant contribution to the work of the College for the next four to eight years. The future of the College is critically dependent on the calibre of the Board members so please do give this request for suggestions your serious attention.

If you have suggestions for future Board members please email them to the Nominating Committee at peterdun@cancerboard.ab.ca by 30th April 2002.

Peter Dunscombe for the Nominating Committee

Second Announcement of the

COMP-AAPM 2002 Annual Meeting

Montreal, Quebec, Canada
Palais des Congrès de Montréal Convention Center
July 14 – 18, 2002

To register for the scientific meeting: go to www.aapm.org

COMP Designated Hotel: Delta Centre-Ville Hotel, reserve early as room block is dropped **May 29th** (go to www.aapm.org to reserve)

COMP Student Housing: Royal Victoria College Residences, McGill University *reserve with McGill Housing Form on www.medphys.ca by **June 13**

Canadian Night Out: Sunday July 14, 2002, 7 pm, Delta Centre-Ville, Tour de Ville (Revolving Restaurant) see COMP website for details.

Dates to Remember

April 26	Authors notified of presentation disposition.
May 8	Web site activated to receive electronic Works in Progress abstract submissions. Meeting Scientific Program available on aapm.org
May 24	Deadline for receipt of 250 word Works in Progress abstracts and supporting data.
May 29	Registration Deadline to receive Discounted Registration Fees.
May 29	Room block at Delta is dropped
June 12	Works in Progress Authors notified of presentation disposition
June 13	Deadline to register for McGill Housing
June 26	No refunds given for cancellations received after this time. On-line registration closes. On-site registration only after this date.
July 1	Deadline for receipt of Banquet cheques in Edmonton

COMP/CCPM Events & Business Meetings

Room assignment information will be on the COMP website

July 11-13
CCPM Fellowship Exams (TBA at McGill University)

Saturday July 13
COMP Executive and CCPM Board mtg
4 –6 pm CCPM Mammography Forum

Sunday July 14

8-11 noon	CCPM Board
8-11 noon	COMP Committee Mtgs
10:45-12:45	Young Investigators Symposium
4-5:30 pm	CCPM Annual General Mtg
5:30 –7pm	COMP Annual General Mtg
7—11 pm	Night Out

Tuesday July 16
10-12; 1:30-3:30 COMP Scientific Sessions

Wednesday July 17
4 pm COMP Canadian Synchrotron Light Source

To Register for the Canadian Night Out Banquet- **$20 CDN by July 1**

Menu details are on the COMP website

All COMP members *who are pre-registered at the meeting* may purchase a Banquet ticket for **$20 CDN** by sending a cheque made out to COMP and sent to the COMP Secretariat in Edmonton (Post Box 39059, Edmonton AB T5B 4T8) by July 1. Please enclose the name of the COMP conference attendee *and current e-mail* address for e-mail confirmation. All other guests, including daily registrants and companions may come but must pay the unsubsidized fee of $50 CDN for the Banquet. Banquet Tickets will be distributed at the COMP and CCPM Annual General Meetings July 14. Confirmed reservations will be given out on a first come, first served basis until all 150 seats are gone or by July 1 (whatever comes first). Please note the deadline for on-line pre-registration at the meeting is **June 26th.**

For more meeting details, please go to the COMP website: www.medphys.ca

In Memory of Montague Cohen, 1925 - 2002

Monty Cohen, the founding Director of the McGill Medical Physics Unit, passed away on Monday, January 28, 2002. He is mourned by his wife of 54 years, Dolly, three sons: Laurence, Robert and Andrew, and 7 grandchildren.

Monty was a teacher and counsellor to many medical physicists, radiologists and radiotherapists across the world but especially in Canada. He was born in London, U.K. and graduated with a B. Sc. in Physics from Imperial College, London in 1945. In 1958 he was awarded the Ph.D. from the University of London for work on reflection spectrophotometry of human skin. After employment as a Research Solid State Physicist at Royal Aircraft Establishment, Farnborough and G.E.C. Laboratories at Wembley in London from 1945, he began his long and distinguished career in Medical Physics at the London Hospital in 1948. He worked in all aspects of the application of radiation in medicine, especially in Radiation Therapy and Clinical Dosimetry.

In 1961 Monty went to the IAEA in Vienna as a Senior Professional Officer in the Section of Medicine concerned in the applications of radioisotopes and radiation sources in medicine. His duties at IAEA included membership on many international committees and international travel to visit member states of the IAEA.

In 1966 he returned to London as Head of the Department of Medical Physics at the London Hospital. The major responsibilities were to provide clinical service to satisfy an ever-increasing clinical demand, and he also became involved in teaching of medical physics to a variety of professional groups such as x ray technologists, physiotherapists and radiotherapy residents. He began to participate in the new M.Sc. program in Radiation Physics at University of London when he made his next and penultimate move in 1975.

Monty came to McGill University as Professor and Director of radiological physics in the Therapeutic Radiology Department. In this position Monty supervised a number of people providing clinical physics support in radiotherapy at the Montreal General, Royal Victoria, and Sir Mortimer B. Davis Jewish General Hospitals. He was also actively involved in student technologist teaching in Dawson College. Radiation safety is a concern for many medical physicists, directly and indirectly; in this Monty was no exception. He provided valuable service to the McGill community with his chairmanship of many radiation safety committees.

In the last move of his career, Monty moved into academia full time in 1979. He established and became the first director of the McGill Medical Physics Unit. As well as teaching several graduate courses, Monty supervised a number of graduate students. He guided the Medical Physics Unit through the first decade of its existence and retired from formal academic life in 1991. During the past 20 years the McGill's Medical Physics Unit gained a worldwide reputation for providing excellent education to M.Sc. and Ph.D. students in medical physics. Considering that the Canadian Organization of Medical Physicists counts some 300 members, McGill's 106 M.Sc. graduates and 16 Ph.D. graduates in medical physics make McGill an important participant in this academic and clinical discipline. Furthermore, there is no doubt that the successes of the Medical Physics Unit can be largely attributed to Monty who brought the service to McGill and to his vision and enthusiasm for teaching of medical physics that are still felt among the current younger ranks of the Unit.

After retiring from formal academic life Monty devoted his time to further study of the career of another physicist who came to McGill from the U.K. He developed a lifelong interest in the History of Science into an almost full time study of Rutherford's life, work and correspondence. He had been the Curator of the Rutherford Museum in the Rutherford Physics Building since 1986. Monty and Dolly visited many places associated with Rutherford where he gave presentations on Rutherford and McGill.

Monty was never a man who was lost for words, spoken or written; he was actively involved in the St. James Literary Society, a group dedicated, in the words of its Constitution, to "the mutual improvement of its members by means of speeches, essays, debates, etc. on social, political, scientific or literary subjects". He was also editor of *Fontanus*, a literary journal devoted to the collections of McGill University.

Monty Cohen will be missed. Our sympathies are extended to Dolly, Laurence, Robert and Andrew.

Geoffrey W. Dean
Ervin B. Podgorsak

CANADIAN COLLEGE OF PHYSICISTS IN MEDICINE

LE COLLÈGE CANADIEN DES PHYSICIENS EN MÉDECINE

Canadian College of Physicists in Medicine

Proposed By-law Amendments

At the November 2001 meeting of the College Board, it was resolved that several by-law amendments would be presented to the membership of the College at the Annual General Meeting to be held in Montreal in July 2002. The proposals address two decisions made by the Board with respect to the implementation of an oral exam at the Membership level and the implementation of a recommendation by the Radiation Regulations Committee that testing of radiation safety knowledge be a mandatory part of the examination process for membership and fellowship in the CCPM. The amendments are as follows:

1) Changes to Article III of the by-laws to include an oral exam at the membership level. A candidate must pass the written exam to be eligible for the oral and only becomes certified after passing the oral examination. The following are therefore proposed to ARTICLE III Membership Categories and Conditions for Admission:

i) Replace….

Members are certified by written examination to be competent in physics as applied to medicine.

With….

Members are certified by written and oral examinations to be competent in physics as applied to medicine.

ii) And, replace…

(1)(c) Applicants must also satisfy the Board that they meet the standards deemed desirable in a Member and must pass a written examination.

With….

(1)(c) Applicants must also satisfy the Board that they meet the standards deemed desirable in a Member and must pass written and oral examinations.

2) Additionally, a procedure for the oral exam is required. The following numbering changes and additions are therefore proposed to APPENDIX III: Examinations-Membership:

i) Replace the heading of the Membership section and add a short description regarding the written and oral parts of the membership examination…

APPENDIX III: Examinations-Membership:

With…

APPENDIX III: Examinations

1) Membership.

Certification for membership consists of written and oral examinations. A candidate must pass the written exam to be eligible for the oral part and only becomes certified after passing the oral examination.

Written Examination.

Application for permission to write will require three satisfactory letters of reference….

ii) After the end of the Membership section insert…

Oral Examination.

Candidates for the oral part of the Membership examination must have passed the written part. It is possible to take both written and oral examinations in the same year. A candidate who passes the written part of the Membership examination, but fails the oral part, would not be eligible for election to the College. However, the candidate would not have to resit the written examination before re-attempting the oral examination.

(Continued on page 52)

CCPM By-law Amendments *(Continued from page 51)*

iii) Replace the heading of the Fellowship section…

Examinations - Fellowship

With

2) Fellowship

iv) And delete the second sentence in the following paragraph from the Fellowship section…

Candidates for Fellowship must have passed the Membership examination. It is possible to take both Membership and Fellowship examinations in the same year, provided the candidate holds the appropriate qualifications. Candidates for Fellowship must demonstrate a wide-ranging knowledge of medical physics and advanced knowledge in one of the sub-specialties listed in Article III.

To

Candidates for Fellowship must have passed the Membership examination. Candidates for Fellowship must demonstrate a wide-ranging knowledge of medical physics and advanced knowledge in one of the sub-specialties listed in Article III.

3) Implementing the recommendation of the Radiation Regulations Committee, changes to Appendix III of the by-laws to formally include expertise in radiation safety as a condition for certification and that testing of radiation safety knowledge be a mandatory part of the examination process for membership and fellowship in the CCPM are proposed:

i) Section II will cover radiation safety relevant to their sub-specialty. Note, the applicant's practical experience and competence in their sub-specialty will be examined in the oral component of the membership exam. The following changes and additions are therefore proposed to APPENDIX III: Examinations-Membership(i):

Replace:

Sections I and II. (2 1/2 hours total) Section I consists of short answer questions (no choice) covering general medical physics and also radiation protection, clinical anatomy and biological science relevant to clinical medical physics practice. Applicants from all sub-specialties write the same exam. Section II of the exam consists of short answer questions (no choice) to test the applicant's practical experience and competence in their sub-specialty.

With…

Sections I and II. (2 1/2 hours total) **Section I consists of short answer questions (no choice) covering general medical physics and also clinical anatomy and biological science relevant to clinical medical physics practice.** Applicants from all sub-specialties write the same exam. **Section II of the exam consists of short answer questions (no choice) covering radiation safety in their sub-specialty.**

ii) Insert after the second sentence in the following paragraph from the Fellowship section…

Fellowship applicants must pass an oral examination administered by an examining committee (five to seven examiners, including the chairman) which examines all candidates for Fellowship in a given year. The duration of the oral exam is one to two hours and the candidate begins with a 15 minute presentation describing some of his/her own work in the field of medical physics, followed by general questioning. All examiners must participate in the questioning and all must vote unless they have a conflict of interest, e.g. they work in the same department. In this case the examiner is excused and leaves the room for that candidate's exam. Two negative votes constitute failure.

With…

Fellowship applicants must pass an oral examination administered by an examining committee (five to seven examiners, including the chairman) which examines all candidates for Fellowship in a given year. The duration of the oral exam is one to two hours and the candidate begins with a 15 minute presentation describing some of his/her own work in the field of medical physics, followed by general questioning. **Part of the oral exam is devoted to radiation safety and candidates not demonstrating competence in this section will fail the exam**. All examiners must participate in the questioning and all must vote unless they have a conflict of interest, e.g. they work in the same department. In this case the examiner is excused and leaves the room for that candidate's exam. Two negative votes constitute failure.

George Mawko
Secretary-Treasurer, CCPM

CANADIAN COLLEGE OF PHYSICISTS IN MEDICINE

LE COLLÈGE CANADIEN DES PHYSICIENS EN MÉDECINE

Canadian College of Physicists in Medicine

Examination Standards

Examination Standards - Membership:

.01 The candidate shall demonstrate familiarity with clinical medical physics practice.

.011 Competency is characterised by: familiarity with general concepts of clinical medical physics, clinical anatomy and relevant biological science.
.012 Inadequate response is characterised by: inaccuracy; lack of knowledge; lack of focus.

.02 The candidate shall demonstrate critical knowledge within the designated sub-specialty with competent answers to previously unpublished questions.

.021 Competency is characterised by: clarity; focus; knowledge of current medical physics practice.
.022 Inadequate response is characterised by: inaccuracy; lack of knowledge; lack of clarity; lack of detail on common practice.

.03 The candidate shall demonstrate detailed knowledge within the designated sub-specialty by providing well developed answers to previously published questions.

.031 Competent answers are well constructed and characterised by: clarity; detail; completeness; appropriate use of illustrations, mathematical equations, references and examples.
.032 Inadequate response is characterised by: lack of clarity; lack of detailed knowledge; lack of focus.

.04 The candidate shall demonstrate thorough knowledge of radiation safety.

.041 Competency is characterised by: thorough knowledge of the biological effects of ionising radiation; detailed knowledge of Canadian radiation regulations and the principles and practices of radiation protection.
.042 Inadequate response is characterised by: inaccuracy; lack of clarity; lack of understanding of the basic physical processes of radiation interaction with tissue; lack of understanding of the implications of inappropriate radiation safety practice.

.05 The candidate shall demonstrate judgment skills commensurate with clinical practice.

.051 Competency is characterised by: the ability to formulate appropriate decisions or courses of action based on evidence and sound clinical practice; the ability to access appropriate reference material; the ability to deal appropriately with errors and mistakes.
.052 Inadequate response is characterised by: inability to formulate strategy; a willingness to make statements or deliver advice outside the individuals knowledge base; inability to determine extent of own knowledge; lack of awareness of appropriate reference material.

.06 The candidate shall demonstrate communication skills commensurate with clinical practice.

.061 Competency is characterised by: clarity; focus; appropriate interpersonal behaviour; appropriate attention to detail.
.062 Inadequate response is characterised by: lack of clarity; lack of focus; inappropriate interpersonal behaviour.

(Continued on page 54)

CCPM Exam Standards *(Continued from page 53)*

Examination Standards - Fellowship:

.01 The candidate shall demonstrate the ability to initiate, lead and complete a substantial clinical project.

.02 The candidate shall demonstrate the ability to communicate a scientific contribution for peer review.

.03 The candidate shall demonstrate a broad, experience-based knowledge in the designated sub-specialty.

.04 The candidate shall demonstrate a thorough knowledge of radiation safety.

.05 The candidate shall demonstrate the ability to assess the relevance of related emerging technologies and their impact on clinical practice.

.06 The candidate shall demonstrate an understanding of relevant legal/ethical and cost benefit issues.

.07 The candidate shall demonstrate the ability to promote and enhance the profession of Medical Physics.

Assessment shall consider:

- scientific merit;
- clarity; focus; correctness and completeness of methodology,
- data analysis and conclusions;
- insight into and knowledge of clinical relevance;
- initiative; appropriate participation;
- development of new treatment devices, techniques,
- improved methods of measurement or QA;
- ability to maintain appropriate documentation and records;
- ability to direct technical staff at project or program level;
- peer reviewed publication records;
- evidence of regular presentations at recognised national and international conferences;
- judgment skills as evidenced by response to situational questions;
- organisational skills;
- teaching experience;
- demonstrated ability to attract peer reviewed or industrial funding for research where appropriate;
- supervision of graduate students where possible;
- participation in professional activities at the local, provincial or national level.

NB: These standards are part of the CCPM Policy and Procedure manual and will shortly be posted on the COMP/CCPM web site.

Brenda Clark

Notice to Amend COMP By-laws

The COMP Executive recommends the following:

That " Article IX: Mailing Address" in the 'Bylaws of the Canadian Organization of Medical Physicists", which currently reads:

> "The mailing address shall be that of the COMP Executive Officer holding the position of COMP Secretary."

Be amended to read:

> "The head office of the COMP shall be in the City of Edmonton, in the Province of Alberta. The address shall be considered permanent until such time as it is changed by the Executive and approved at an AGM of the COMP."

This change reflects the fact that COMP has moved to a permanent Secretariat and Executive Director.

This notice serves as the required 60 day notification to the membership that the proposed amendment will be put to the membership for voting at the 2002 Annual General Meeting.

L'exécutif de l'OCPM propose l'amendement suivant:

Que l'"Article IX: Adresse postale" dans les Règlements de l'organisation canadienne des physiciens médicaux, qui se lit:

> "L'adresse postale sera celle du cadre OCMP dirigeant tenant le poste de secrétaire de l'OCMP."

Soit modifié pour lire:

> "Le siège social de l'OCPM sera dans la ville d'Edmonton, dans la province de l'Alberta. L'adresse sera considérée permanente jusqu'au moment où elle est changée par l'exécutif et approuvée à une assemblée générale annuelle de l'OCPM."

Ce changement reflète le fait que les postes de directeur exécutif et du secrétariat sont maintenant permanents.

Cet avis d'amendement est conforme à l'article XI des règlements de l'OCPM qui stipule entre autres que tout amendement doit être présenté par écrit aux membres au moins 60 jours avant le vote sur l'amendement.

Michael Henry

Federal Provincial Territorial Radiation Protection Committee: 2001

By P. J. Wall
Nova Scotia Department of the Environment & Labor

For many years the citizens of this country have been blessed with memorable performances from the National Arts Center in Ottawa. Last October this pinnacle of the performing arts in Canada - according to those who live in Ottawa at least - was host, for two consecutive day long performances, to the members of the Federal Provincial Territorial Radiation Protection Committee (FPTRPC) as they juggled radiation issues in Canada. Unfortunately there wasn't representation from New Brunswick, The Yukon, North West Territories, Nunavut or The Ontario Ministry of Health. Without doubt the location of this year's performance, precipitated by post September 11, 2001 security considerations, will further the "Art and Science of Radiation Protection" across the land.

Preceding the performance at the National Art center was a training day, devoted to both ionizing and non-ionizing radiation. The morning session, well presented by staff at the Canadian Nuclear Safety Commission (CNSC) in their offices on Slater Street, explicated the Nuclear Safety and Control Act (NSCA) and its respective regulations with relation to inspections and inspector's powers. In the afternoon members were off to the Radiation Protection Bureau(RPB) at Health Canada (HC) for excellent presentations by experts and dialogue with artificers in several areas especially EMF. A well deserved "hats off" to all the presenters for their efforts.

The delusory 20 foot high, art decor, doors to the acoustically impressive meeting room at the Arts Center, opened early on October 24th, for the first official meeting day chaired by Saskatchewan's Wayne Tiefenbach. After leading members through a review of outstanding items from the previous year's proceedings, Wayne commenced his attack on the day's diverse docket, beginning with reports from the various working groups and sub-committees. Communications protocols and mechanisms for sharing information were discussed at length and resulted in agreement to better utilize available web sites, especially those of the CNSC and HC. Other topics receiving extensive discussion were: ELF; harmonization of pregnancy dose limits and excessive radiation exposure during invasive medical procedures. Although these issues had received abundant attention, by specific groups during the year, further discussion with experts in federal jurisdictions was necessary, consequently, they were deferred to the following two days agenda.

Day two, with Dr. Mary Measures of the CNSC presiding, started with the usual review of past proceedings and, after final adjustments to the days agenda, continued with an inaugural address by Ms. Linda Keen, president of the CNSC. Ms. Keen, ignoring the text of her prepared script, elucidated on her career path to now and, without mentioning a specific area, emphasized her extensive experience in research. Questioned by one of the provincial delegates as to how basic science fit her vision for the CNSC; she replied that, along with the pilot program involving graduate internships currently in place, in the near future, a specific group will be developed to study science and research. Following her response provincial chairman Wayne Tiefenbach extended thanks on behalf of the committee membership. During his remarks Wayne emphasized the importance of the CNSC's financial support for the committee's work and suggested, that in light of the demise of the advisory committees to the CNSC, the FPTRPC could perhaps fill the void by providing advice to assist her in achieving the goals she has established for the CNSC. The meeting was then turned back to the chair to complete the day's agenda.

Next up was a discourse on the appointment of provincial representatives as CNSC inspectors. This issue has been on the table for a number of years without resolution. Tom Viglasky, director of materials regulation at the CNSC, informed those present that in all likelihood the Executive Committee of the CNSC would address this issue before the end of 2001. Mike Taylor, executive director of regulatory affairs, then lead a discussion on licencing periods and indicated, as his predecessor did with respect to inspectors, that this issue too, is being reviewed. British Columbia's representative, Brian Phillips, raised a concern regarding regulations with respect to worker overexposure. Most delegates were not aware of actions undertaken by the CNSC in this area. Robie Chatterjee informed the group that the CNSC's regulations state the worker must be removed from work; the employer must report the overexposure to the CNSC and it will investigate. Once the investigation is complete a determination is made as to whether the worker will return to work and if conditions will apply. An information item with respect to changes at the National Dose Registry (NDR) was provided by Pat Ashmore. Pat indicated that because its hardware, software and computer language were out of date, and everything is difficult to maintain, phase 2 of a 4 phase program to expand the NDR into a fully integrated system available on line is underway. This system, with phase 4, the implementation stage, expected to be completed by September, 2002, will be available to both employer and worker. A corollary item with respect to proper data submission to NDR followed and was resolved with a suggestion for an information article to be published in the National Dosimetry Newsletter. Several information only sessions followed and the days agenda culminated with a short presentation on post September, 11 security measures currently under way at licensees and CNSC facilities.

Friday's meeting venue was the Radiation Protection Bureau (RPB) at Health Canada with Jack Cornet, director of radiation protection, presiding over the morning session and Bob Bradley, director of consumer and clinical radiation protection, in charge during the afternoon. After the obligatory review of the previous year's record attendees were updated on the status of the Federal Nuclear Response Plan and how it would operate during a terrorist incident. An interesting presentation by senior staff

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of the Canadian Meteorological Center, who are assisting the RPB in its responsibilities for the Federal Nuclear Emergency Plan, followed. During it, the presenters described how they developed models to track a variety of conditions including radiological and volcanic events around the globe. A live demonstration reiterated how useful these models can be during exercises. Dr. Bliss Tracy concluded this session on nuclear preparedness with a discussion on "The Guidelines for Intervention in a Nuclear Emergency," in which he indicated that another document outlining how these guidelines are to be used would be developed through consultation at a stakeholder's meeting.

After lunch Bob Bradley got things underway with an update on the status of regulations and other HC documents, then lead a discussion on a process to develop Canadian Reference Levels applicable to health-care x-ray examinations in Canada. Concerns were raised around the table about high doses in pediatric examinations both to patients and staff. Following a recommendation, to have Dr. Slavi Vlahvoich forward UNSCEAR's medical exposure information to the attendees, the issue was tabled to Saturday morning's meeting for further action.

Non-ionizing radiation topics completed the afternoon's agenda. Of particular concern to those present is the proliferation of laser use in industry and para - medical facilities such as hair removal clinics. These present new hazards and there is little tracking taking place. A consensus was reached to investigate the types of training available in this area and to whom it would be most beneficial. Recent inquires to the RPB on EMF have questioned the Safety Code 6 guidelines based on standards in other jurisdictions, particularly those of European countries. Experts at RPB continue to maintain there is no scientific evidence to refute the Canadian guidelines. On the medical ultrasound front are a number of new applications being developed and licensed for use in Canada, for instance, a technique known as "extra corporeal shockwave gallstone lithotripsy. It was felt by HC officials that these devices and others, for example ultrasound therapy devices, should be brought under compliance review . At the end of this session staff also announced that new guidelines for the safe use of diagnostic ultrasound devices will be published by the end of 2001.

Saturday, the final day of proceedings, began with a review of current membership on the various working groups and subcommittees, and, the start-up of a new group to address the management of over-exposure and return to work issues . With this activity completed new work assignments for the coming year were discussed and allocated as follows:

The Provincial Radiation Dosimetry Review Sub-committee:

No change in membership here and their work continues in reviewing new applications to provide dosimetry services in Canada.

Survey Instrument Calibration Working Group:

During the coming year this group will develop a list of all equipment being used by the various jurisdictions and survey companies providing calibration services for that equipment. The goal of this exercise is to ensure quality service and hopefully get group rates for calibration.

Medical X-ray Utilization Working Group:

As a result of Friday's discussions this group's work in the coming year will focus on investigating the types of training provided to operators of medical x-ray equipment in Canada. A report on digital radiography reference doses and pediatric exposures will be developed by them as well.

Naturally Occurring Radioactive Materials (NORM) Working Group:

Although the Canadian Guidelines have been published and distributed there is more work to be completed on the harmonization of these with the Western Canadian NORM Committee document.

Radiation Standards Working Group:

Their major task in the coming year is to collect input from across Canada on pregnancy dose limits and garner support for a one day workshop, on the issue, tentatively set for Monday October 21, 2002 in Ottawa just prior to next year's FPTRPC meetings. This group will also develop recommendations on "who should be badged."

Business Plan Working Group:

A comprehensive business plan will be completed in the coming year which will review the FPTRPC's current terms of reference and develop a list of items to be addressed at next year's meeting.

Communications Working Group:

More information from the committee will be made available to the public through the use of both the CNSC and HC websites. A summary of this year's meeting will be made available to these websites and to the publications of the Canadian Radiation Protection Association and Canadian Organization of Medical Physicists.

C260 Document Working Group:

Members of this group will incorporate the comments collated into the final document.

Mammography Standards Working Group:

The Mammography Standards are complete, however, provincial acceptance of the total program was insufficient to continue with further work on the project. The group will not be dissolved as comments received on the use of the standards document, as a reference guide, need to be processed.

ELF Working Group:

Due to heightened public interest in ELF this group has been active and will be busy during the coming year. A new back

(Continued on page 64)

CMA Site Visit for Accreditation of a Radiological Technology Teaching Program

By Michael Evans
McGill University Health Centre

I recently participated in a Canadian Medical Association (CMA) site visit for accreditation of a radiological technology teaching program. The CCPM as a sponsoring body has membership on the CMA Conjoint Committee for Accreditation (CCA) and as such has the privilege to nominate physicists for accreditation review. Although I have been attending the annual CMA-CCA meetings in Ottawa on behalf of the CCPM for the last three years, this was my first accreditation visit, and I would like to share my impressions of this activity with the medical physics community.

My name was put forward as a possible site reviewer, and as such I was asked to indicate various areas of expertise and my role with respect to teaching. For example, as a physicist I could indicate I had an interest in diagnostic radiology and radiation therapy, and that I would participate as a scientist with clinical as well as teaching experience. In addition, the CMA was interested to know whether the reviewer had a clinical or administrative association with the review process. I was chosen for a site visit scheduled for early December 2001, and following my acceptance in March 2001, I received a large (around 500 pages) self-assessment document prepared by the school undergoing the accreditation review. The institution (school) being reviewed takes this accreditation process seriously, since a withdrawal of accreditation status can mean that graduating students may not be permitted to write national board exams, thus severely limiting employment prospects for graduates.

Following my initial review of the self-assessment document with respect to the criteria as presented by the CMA a telephone conference was held in July between the four site reviewers as well as the coordinator from CMA. In my case the three other reviewers included the dean of a community college, and two radiology clinical coordinators with teaching responsibilities. A point-by-point review of the CMA- (PAR Program Assessment Review; you've just got to love the acronyms!) was completed and a decision was made to carry on with the actual site review in December. Had there been serious problems at this point the site review might have been postponed pending changes or improvements at the school.

The CMA office in Ottawa arranged all the travel and accommodation. The site review was scheduled for Monday to Wednesday, and we arrived at the location during the previous weekend for a rather long re-examination of all the documentation. In addition any of the weaknesses identified during the previous nine months and our telephone conference were re-examined. The review considers 5 main areas: relevance, students, resources, integration and program evaluation. There are 32 specific criteria including 9 so-called critical criteria which are considered in granting the school compliance and accreditation status.

Monday and Tuesday were spent visiting the school and hospital radiology departments where the students receive their training. A full two days of tightly scheduled interviews were carried out with administrators and teaching staff from both the school and the hospital. In addition interviews were conducted with students, recent graduates and staff who interact with students during clinical rotations. As many of these training programs operate over a wide geographic area, a combination of telephone interviews and travel to other cities was necessary to complete the interview process. The principle aim of the site visit is to confirm the submitted documentation of the school with regards to its teaching policies, and to ensure that the CMA standards for program accreditation are in fact met. Following the interview process a preliminary report is produced indicating the accreditation status of the training program. This was probably the most arduous part of the entire site review as it required a point-by-point consideration of all 53 CMA criteria and sub-criteria, and if necessary an in-depth examination of any critical criteria failures.

There was a lot of jargon for me to pick up on this visit, especially as I was what the other more experienced reviewers termed a "virgin" to the site review experience. However I seemed to come through the experience relatively unscathed, and was able to contribute to an evaluation which is aimed at helping both the school and the students, as well as ensuring that teaching standards for CMA reviewed teaching programs across the country are adequate and relatively uniform. For us as medical physicists this is a unique way in which to improve the visibility of our profession, especially in relation to hospital and teaching administrators, and the technologists or therapists we regularly interact with in fulfilling our clinical duties. Many of these people may be unaware of us as professionals, and both the CMA and my fellow reviewers seemed genuinely pleased to have me as a clinical scientist with teaching responsibilities as part of the site review.

In terms of effort there was a lot of reading and preparation beforehand, and I had to give up a week-end and most of a working week for the site review. As the visit is scheduled far in advance it is also a commitment that has to be honoured, as many people put a lot of effort into preparation for the accreditation review. On the other hand it was an interesting learning experience, and I would encourage other medical physicists with both clinical and teaching experience (I suspect that includes the vast majority of CCPM members) to put their names forward as site reviewers. The CMA would be especially interested in physicists with an interest in reviewing schools for training technologist/therapists in MRI, Nuclear Medicine, Diagnostic Radiology, Ultrasound and Radiation Oncology. Any CCPM member with an interest in this process can contact either Brenda Clarke the CCPM board member responsible for CMA liaison (bclark@bccancer.bc.ca), Andrew Rainbow the Program Accreditation Committee delegate (rainbow@mcmaster.ca) or myself (mevans@medphys.mcgill.ca) who will then forward names to the responsible person at the CMA for future accreditation reviews.

Awards of Note

Recently, two members of the McGill Medical Physics community, Dr. Shevonne Ozard and Ms. Kristin Stewart received awards of note. Shevonne Ozard earned her B. Sc. in honours physics from the University of Victoria in 1995. During her undergraduate degree she completed work terms in several branches of physics including ocean acoustics, astronomy, and medical physics. Between 1995 and 2001 Shevonne pursued her Ph.D. at the University of British Columbia and specialized in medical physics. Dr. Ozard began the two-year residency position at McGill in November of 2001 under the supervision of Dr. Ervin Podgorsak. The Medical Physics Unit at McGill is currently the only department in Canada that has a CAMPEP accredited residency program. Dr. Ozard's position is funded by both Varian and McGill University. In addition the sixth AAPM/RSNA Fellowship has been awarded to Kristin Stewart of McGill University. This award for pre-doctoral studies began July 1, 2001 and runs through June 30, 2003. Ms. Stewart is from Regina, Saskatchewan and graduated from the University of Regina with a B. Sc. degree in honours physics in the year 2000. She completed her M. Sc. degree in medical physics at McGill University in 2002 and is currently enrolled in the Ph. D. program in medical physics, also at McGill University. Ms. Stewart's research is related to the development and use of liquid ionization chambers and is being carried out under the supervision of Dr. Jan Seuntjens.

The two famous McGillians, Shevonne on the left and Kristin on the right, are shown next to our Cobalt TBI-in-the-sky in the department of radiation oncology.

Michael Evans

Recent Developments in Accurate Radiation Dosimetry, International Workshop

McGill University, Medical Physics Unit, Oct 11-13, 2001

By Jan Seuntjens, McGill University
Paul Mobit, Tom Baker Cancer Centre & University of Calgary

We organized at McGill University (Montreal) an International Workshop, "Recent Developments in Accurate Radiation Dosimetry". This event was in collaboration with the International Atomic Energy Agency with support from several local and international companies, the Canadian Institutes of Health Research and the Alberta Cancer Board.

The 2.5-day workshop focused on recent developments in cavity theory, radiation physics interaction data, accurate Monte Carlo calculations of dosimeter response and on other developments in the area of absorbed dose standards and their dissemination as well as accurate relative dosimetry. There were about 55 participants from standards labs and cancer centers from 11 different countries with 13 invited speakers many of whom play a major role in protocol development for the American Association of Physicists in Medicine and the International Atomic Energy Agency. In total, 34 papers were presented in eight sessions covering the various areas of accurate radiation dosimetry.

The abstract book, containing a record of the program, invited speakers and abstracts can (still) be downloaded at http://www.medphys.mcgill.ca/rad_dose. Although the main emphasis of this workshop was on informal discussions, part of the presentations will also appear as full length papers in a reviewed proceedings book. This publication is currently being edited and will be available as AAPM Proceedings Series No 13 (Medical Physics Publishing, Madison, Wisconsin) towards the end of 2002.

News from McGill Radiation Oncology and Medical Physics

By Michael Evans
McGill University

Under the direction of Dr. C. Freeman (Radiation Oncology) and Dr. E.B. Podgorsak (Medical Physics) radiation oncology at McGill University completed an expansion and renovation project during 2001. This past year also saw the consolidation of radiation oncology services of the McGill University Health Centre at the Montreal General Hospital site. During these past 12 months the medical physics department was involved in all aspects of this project, and a summary of these activities is given below.

Three old linear accelerators (a T4, an EMI-4 and EMI-6) were dismantled and scrapped, and a T-750 AECL simulator was salvaged for spare parts. A Varian 6EX and two Varian 21EX linacs with portal imaging and 120-MLCs were put into clinical service. A Varian Clinac-18 linac (installed in 1976) was taken out of service for 6 months to allow for room renovations and brought back into clinical use as a special procedures linac to be used for stereotactic radiosurgery and total skin electron irradiation.

Our T-780 Cobalt unit was disassembled from its gantry and wall mounted in the Clinac-18 room so that a stationary Total Body Irradiation (TBI) technique could be developed, and the first TBI patient was treated in November using this technique.
The HDR brachytherapy installation was moved from a shared linac site to a stand-alone brachy bunker during a one-week period so as not to disrupt on-going treatment. We have also been delivering HDR prostate treatments since May. As well, we began treatment of choroidal melanoma with Ru-106 eye plaques. One of the T-750 AECL simulators was dismantled and moved to the new brachy bunker, and a digital imaging system was installed on the simulator.

During January 2001 a Marconi (now Phillips) CT-Simulator and several AcQSim workstations were installed and put into clinical service, and the entire department was re-wired for network access. In September, 5 linacs were linked to the VARIS record-and-verify system which was interfaced to the treatment planning system, and the department adapted to working with a central patient data-base server. In January 2001 the clinic began clinical use of the BAT for ultrasound prostate localization, and in November our first patient was treated using the CORVUS inverse treatment planning software.

All in all, it was a busy 12 months, and exposed us to the new CNSC licensing procedures for brachytherapy, Cobalt and linacs. Had we known what was coming during any of the expansion, consolidation or renovation-from-within phases, we might have worried about completing the project. However, our departmental motto of “organized chaos” and a bit of luck brought us through, and I believe we are looking forward to a more stable working environment in 2002.

Michael Evans
January 2002

Seed Leak Discovered at Toronto-Sunnybrook Regional Cancer Centre

By William Que

In late October of 2001, the prostate seed implant team at Toronto-Sunnybrook Regional Cancer Centre started using I-125 seeds from a relatively new seed manufacturer. The first two shipments of seeds were uneventful. However, the third shipment of seeds, which were used during the last week of November, turned out to be problematic.

At TSRCC, loose I-125 seeds are placed in sterilization and sorting trays (supplied by Standard Imaging) and sterilized in a steam autoclave. On Nov. 29, 2001, it was discovered that one of the three trays was radioactive even though all the seeds had been removed. The assistant radiation safety officer Dr. Alec Lightstone performed swipe tests on the work benches where seeds were handled, and on the calibration equipment, but no radiation contamination was found from these swipe tests. The empty vial that was used by the seed supplier to ship the seeds had no detectable level of radiation. Radiation contamination was present only on the seed sterilization tray and its mesh cover. The mesh cover was used during autoclave only. These findings suggest that the leak occurred during autoclaving, a standard procedure to sterilize the seeds using steam of elevated temperature and pressure. While the amount of radioactive material still on the tray was estimated to be about 0.005 mCi, the actual leaked amount could be much more since some of the radioactive material could have evaporated under the heat of the autoclave and escaped through the exhaust duct.

After the radiation contamination was discovered, the manufacturer was contacted immediately and a report was filed to CNSC. TSRCC has stopped using seeds from this manufacturer.

In Brief

Correction

The "Message from the COMP Chair" in the January 2002 issue of InterActions states that Peter Munro has resigned from the Communications Committee. This information was obtained from the COMP and Joint COMP/CCPM Mid-Year meeting minutes recorded November 2001. Peter Munro is indeed still a member of the Communications Committee.

Alanah Bergman

Correction—RTOG Credetialing

In the January 2001 Interactions article "Credentialing for an RTOG IMRT Protocol" I stated that the Saskatoon Cancer Centre was one of three institutions to be credentialed for the RTOG H-0022 protocol. In fact, due to changes in the scoring criteria, the Cross Cancer Institute in Edmonton was considered as being credentialed on June 20, 2001. The RTOG 3D QA web site did not indicate this when the article was published; the site has been updated to indicate credentialing by the C.C.I.

Pat Cadman
Saskatoon Cancer Centre

Electronic Communication

As of December 2001, COMP had 419 members of which 412 had supplied email addresses to the organization. Because of the increasing importance of electronic communication it is good to see that we can contact 98.3% of the membership electronically.

Peter Munro

International Symposium on Standards and Codes of Practice in Medical Radiation Dosimetry

IAEA, Vienna, 25-28 November 2002

The IAEA is organizing an International Symposium on Standards and Codes of Practice in Medical Radiation Dosimetry here in Vienna from 25-28 November 2002.

Please see the IAEA's web site announcing the symposium, which is http://www.iaea.org/worldatom/Meetings/2002/infcn96.shtml

Dr. Ken R. Shortt
Head, Dosimetry and Medical Radiation Physics Section
Division of Human Health
International Atomic Energy Agency (IAEA)

7th International Workshop on Electronic Portal Imaging EPI2K2

June 27—29, 2002
University of British Colombia Campus, Vancouver, BC

For more information, visit the EPI2K2 web site
www.epi2k2.ca
Contact: **Rasika Rajapakshe**
email: rrajapak@bccancer.bc.ca

From the Editor:

It has been a couple of issues since I have provided anything for this section and in that time some changes have occurred. I would like to acknowledge and thank Alain Gauvin for his term of service on the editorial board, which has now ended. Alain will be busy in his new role as Chair of the CCPM Medicine Mammography Accreditation Committee and we wish to thank him very much for his contributions to Interactions. Horacio Patricinio from McGill becomes our newest editorial board member and we welcome him.

I would like to encourage all the membership to keep sending their contributions to Interactions. I have not tried to influence the format and content of Interactions to any degree, believing it to be a voice of the membership when the membership has something to say. However, I would dearly like to ensure that the feature article section and cover images are in place for each issue, and this is proving difficult. I also think that there are a number of ***new*** voices that need to be heard from.

Interactions can be many things: a showcase for research, an official communication, a scientific review, a humorous pause: whatever we as members want it to be. For me, the newsletter provides an important link with my friends and colleagues in the medical physics community. Please help to keep the link strong by encouraging yourself or other COMP members to contribute and share through Interactions.

Pat Cadman

Daniels awarded World-web grant

At the recent RSNA meeting in Chicago, Cupido Daniels was one of two awardees for the RSNA 2001 World-wide web grant competition. Not only was the application successful, but it was also the top-ranked (by NIH guidelines) application for submissions from around the world. The grant, for US$150,000 is for a 2-year project to develop a Internet-based learning resource on cardiac imaging. Congratulations!

Radiation Protection Committee *(Continued from page 59)*

ground paper will be developed in support of the new "position statement" recently produced. The need for 60 Hz exposure guidelines will be reviewed and recommendations brought to the table at next year's meeting.

Assignments complete, the chairman led a discussion on several topics beginning with the CNSC's termination of the Advisory Committee on Radiation Protection(ACRP). Suggestions to send a message of support to the ACRP and to obtain a list of incomplete projects for further action by the FPTRPC were agreed on. The FPTRPC provincial chairman will then draft a letter to the president of the CNSC regarding the ACRP early in the new year.

Just prior to adjournment transportation incidents in Canada were again reviewed. Since action on this item has stalled alternative methods to address it through the Solicitor General's and Emergency Preparedness Canada offices will be explored by the RPB. With the agenda now complete the chairman led a short discussion on the conduction of future meetings then thanked the support staff from the CNSC and HC. The date for next year's meeting was then set for October 22-26, 2002 with the hope that those jurisdictions who were unable to attend this year will participate.

CCPM Presidnet *(Continued from page 45)*

mailing from the College soon to help you prepare your dossiers for this summer's deadline. I will reassure you that the twenty odd folk who did the recertification last year found the process quite easy. On a final issue re: maintaining certification; it is disturbing to see the number of members and fellows who do not pay their fees in a timely fashion. I remind you that the by-laws clearly state that if you are in arrears over two years, your membership/fellowship is to be revoked.

I will end this message by getting on my hobby horse to make the point that I've made in every message since I've been president. Please become involved with the College. I believe the greatest present risk to the College and the Canadian Organization of Medical Physicists is what I perceive to be general lack of interest in the organization by young physicists in Canada. The response is universally weak in both organizations whenever views are solicited, nominations requested, and volunteers recruited. For example, we have had only three replies to our request in the last INTERactions for feedback on the CCPM proposal to change the examining structure. Two people felt very strongly and one other wondered why we were proposing a membership oral now when he had done one years' ago (he was confused by the Ontario peer review he had done in his past). Recently on the medical physics burster, there have been requests for nominations for officers to COMP and the College, now repeated in this issue INTERactions. Response to date has been slow, as usual. I realize that our lives are very busy these days and that it is hard to balance the many requests from various organizations. But please consider that the work of COMP and the College is important (for the CCPM particularly as provincial agencies and others insist on clinical physicists being professionally certified). Please do consider how you can help the community (even by only providing feedback). I look forward to hearing from you. And I am sure you are looking forward to Brenda writing a President's message without this quarterly rant.

L. John Schreiner, Ph.D., FCCPM
President, CCPM, March 13, 2002

Connecting Job Seekers to Jobs

The Canadian Medical Association (CMA) has launched www.MedConnexions.ca, a bilingual online health employment matching service. This new initiative offers employers, physicians and other health care professionals a fast and cost-effective way to connect in Canada's health care market.

Run in partnership with Industry Canada, MedConnexions.ca is part of the ministry's SkillNet.ca network of career and recruitment sites. The site provides physicians and other health care professionals with a secure Internet environment in which to post curriculum vitae and evaluate Canadian opportunities within many fields of expertise. Registered applicants (job seekers who are members of the CMA or its partner associations can register to use the site for free, otherwise a nominal fee is required to access the system) can create and edit resumes online, then apply online to single career postings or recruitment campaigns. Job Seekers can also access employer profiles to learn more about the types of opportunities available.

Employers can use MedConnexions.ca to advertise full-time, part-time, summer and internship opportunities, or to launch broad recruitment campaigns for a wide variety of skilled health care workers. Employers can also do preliminary screening through competency-based searches of applicant resumes.

Jumelage emplois–travailleurs

L'Association médicale canadienne (AMC) a lancé www.MedConnexions.ca, service bilingue en direct de jumelage emplois–travailleurs. Cette nouvelle initiative offre aux employeurs, aux médecins et aux autres professionnels de la santé une façon rapide et rentable de se rejoindre dans le marché des soins de santé.

Administré en collaboration avec Industrie Canada, MedConnexions.ca fait partie du réseau Compétence.ca de sites professionnels et de recrutement. Le site offre aux médecins et aux autres professionnels de la santé un environnement Internet protégé où ils peuvent afficher leur curriculum vitae et évaluer les possibilités qui s'offrent à eux dans de nombreux domaines de compétence spécialisée au Canada. L'inscription au site est gratuite pour les chercheurs d'emploi membres de l'AMC ou de ses associations partenaires. Les non-membres devront verser de modestes frais pour l'accès au système. Les chercheurs d'emplois inscrits peuvent créer et corriger leur curriculum vitae en direct, postuler ensuite en direct des emplois affichés ou participer à des campagnes de recrutement. Les chercheurs d'emploi peuvent aussi consulter des profils d'employeurs pour en apprendre davantage au sujet des débouchés disponibles.

Les employeurs peuvent utiliser MedConnexions.ca pour annoncer des possibilités d'emploi à plein temps, à temps partiel, d'été et de stage, ou pour lancer des campagnes de recrutement générales d'un vaste éventail de travailleurs de la santé qualifiés. Les employeurs peuvent aussi procéder à une présélection en effectuant des recherches par compétence dans les curriculum vitae des candidats.

Job Seeker Benefits

- Search career opportunities from across Canada and apply directly to job postings and recruitment campaigns online
- Edit, update or delete applications at any time
- Browse employer profiles and research training and education opportunities
- Opt to make your application searchable by employers or hidden

Employer Benefits

- Fast access to highly skilled health care professionals
- Post job openings or recruitment campaigns quickly and easily, manage applications online
- Free listing in health care facility profiles section.

Register or get more information online or contact the MedConnexions.ca administrator at 1 800 663-7336 or 613 731-8610 x2231, or email: medconnexions@cma.ca

Avantages pour les chercheurs d'emploi

- Effectuer des recherches parmi les possibilités d'emploi partout au Canada, postuler directement les emplois affichés et participer à des campagnes de recrutement en direct.
- Modifier, mettre à jour ou supprimer sa demande en tout temps.
- Parcourir des profils d'employeurs et chercher des possibilités de formation et d'éducation.
- Garder sa demande confidentielle ou la rendre consultable par les employeurs.

Avantages pour les employeurs

- Accès rapide à des professionnels de la santé hautement qualifiés.
- Affichage rapide et facile d'emplois disponibles ou de campagnes de recrutement; gestion en direct des demandes des candidats.
- Inscription gratuite dans la section des profils des établissements de santé.

Inscrivez-vous ou obtenez plus de renseignements en direct ou en communiquant avec l'administrateur de MedConnexions.ca (tél. : 1 800-663-7336 ou 613-731-8610, poste 2231; courriel : medconnexions@cma.ca).

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Website: www.ge.com/medical

Contact: Ms Heather Phillips
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Contact: Mr David Harpell, P.Eng.
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Website: www3.sympatico.ca/hilferdine

Contact: Mr Sean Eckford
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Contact: Mr Bob Gollaher
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CANCER CARE ONTARIO

Grand River Regional Cancer Centre

Cancer Care Ontario operates nine regional cancer centres in Ontario, with several new centres scheduled to open between 2003 and 2005. Our work includes programs in cancer prevention, screening, treatment (medical, surgical and radiation), supportive care, research, education and the development of treatment guidelines.

Cancer Care Ontario is the province's leader in the integration and coordination of cancer control services, and the Ministry of Health and Long-term Care's principal adviser on cancer issues.

Medical Physicists (3)

The Grand River Regional Cancer Centre (GRRCC) is seeking three Medical Physicists to join a new and exciting Medical Physics Program supporting radiation oncology. GRRCC is currently under construction at the Grand River Hospital(GRH) site and is scheduled to open in late Fall 2002. GRRCC will be operationally integrated with GRH and will share medical imaging resources including MR, U/S, CR, SPECT, PET (off site) and PACS. The Radiation Oncology Program will have a dedicated wide-bore CT simulator and will provide comprehensive image-based virtual simulation and 3D conformal treatment planning. Within the first year of operation, GRRCC will commission four Varian 2100 EX linear accelerators (6/15 MV, photon-electron) with dual-asymmetric collimation, EDW, 120 leaf Millenium MLC, DMLC, and a-Si Portal Vision options. GRRCC Medical Physicists will be actively involved with the development of and process integration within a Varis (R/V and Vision) information system. One of the early objectives of the new cancer centre is paper-less and film-less operation. A shielded OR suite and a Nordion GammaMed afterloading unit will be available for HDR brachytherapy. A fully equipped mould room and workshops will provide a range of services including immobilization and custom accessory fabrication.

GRAND RIVER HOSPITAL

The successful candidates will join a team of Radiation Oncologists, Therapists and Support professionals forming the ninth Radiation Treatment Program within Cancer Care Ontario. This is a unique opportunity for Medical Physicists to lead and develop key processes within the Radiation Treatment Program and work with new people, technologies, and infrastructure. The Radiation Treatment Program will treat approximately 1600 new patients per year and enjoys a growing relationship with the Universities of Waterloo and Western Ontario. Qualified individuals will have an opportunity to share teaching at the University of Waterloo and supervise graduate students.

The GRRCC is a joint venture of Cancer Care Ontario and Grand River Hospital Kitchener-Waterloo and draws from a population of approximately 650,000.

Applicants should have CCPM (or equivalent) certification with two years of clinical experience. Preference will be given to candidates with a Ph.D. and who have completed a physics residency.

Qualified individuals are invited to forward a CV by no later than **April 30, 2002** to: **Rob Barnett Ph.D. FCCPM, Head of Physics, Grand River Regional Cancer Centre, 835 King St. West, Kitchener, Ontario N2G 1G3. E-mail: rob_barnett@grhosp.on.ca**

We would like to thank all who apply, but only those selected for an interview will be contacted. We are an equal opportunity employer.

www.grrcc.on.ca ***www.cancercare.on.ca***

POSITIONS: Head Medical Physicist and Medical Physicist

LOCATION: Windsor Regional Cancer Centre
Windsor, Ontario, Canada

The Windsor Regional Cancer Centre (WRCC) is seeking both a Head medical physicist and a medical physicist to join a progressive Medical Physics Program. WRCC moved into a beautiful new facility in April 2001. The 6500 sq metre (69,000 Sq ft) centre houses three Siemens Primus linear accelerators, an Odelft simulator, as well as orthovoltage and HDR units. There is an active brachytherapy program with HDR and seed program for prostate cancer patients. There are plans to add a CT simulator by year end. WRCC has one of the most innovative information systems in Canada.

The Radiation Oncology Program treats approximately 1200 new patients per year and enjoys a growing relationship with Windsor and Wayne State Universities. The Medical Physics Program has a staff of 9, complementing a staff of 4 Radiation Oncologists and 21 radiation therapists.

Applicants should have CCPM (or equivalent) certification with ten (Head) or two (Medical Physicist) years of clinical experience. Preference will be given to candidates with a Ph.D.

The WRCC is part of the provincial organization of Cancer Care Ontario, which currently has 10 cancer centres in the province of Ontario. Windsor is a city of 200,000 located across the river from Detroit (a metro area of ~ 3 million) and is Canada's southernmost city. It offers small town charm while maintaining close proximity to major metropolitan areas.

Interested applicants can obtain further information from, or send their current CV to:

Lorraine Monforton
Human Resources
Windsor Regional Cancer Centre
2220 Kildare Road

Windsor, Ontario, Canada N8W 2X3
Phone (519) 253 3191 x 58550 FAX (519) 255 8670
Email: lorraine.monforton@wrcc.on.ca

Position: Clinical Radiation Oncology Physicist

Location: Northern Ohio (Toledo-Sandusky)

A full-time position is available for a clinical medical physicist with our private practice medical physics group. Our group consists of 3 physicist and 2 dosimetrists. We provide service to several radiation oncology facilities in the area. Recent graduates through board certified physicist are encouraged to apply. This specific position is for service primarily at one facility with two accelerators with some backup duties at other locations. Automobile and expenses provided.

Competitive salary (up to $100K depending on experience), flexible benefit package and potential partnership available. Educational opportunity for pursuing advanced degrees possible with flexibility of schedule. Tuition reimbursed provided for employee and spouse (if appropriate). Support for spousal career development provided if requested. Excellent local educational systems for children (private, parochial and public) available.

Interested applicants should contact:

Andy Schneider
Schneider & Wuest, Inc.
26302 Thompson Road
Perrysburg, OH 43551
419.874.5947
Fax 419.998.4418
Pager 419.415.0212
Info@deltasimulator.com

MEDICAL PHYSICIST
VANCOUVER ISLAND CENTRE (BC CANCER AGENCY)
VICTORIA, BRITISH COLUMBIA, CANADA

The Vancouver Island Centre of the BC Cancer Agency has an opening for a medical physicist to join an enthusiastic group of 6 other physicists providing clinical physics services to radiotherapy. We also have 2 physics assistants and 1 trainee physicist. An attractive salary and benefits package is offered. The successful candidate would ideally be able to commence duties in April 2002.

The British Columbia Cancer Agency is a multi-disciplinary diagnostic, treatment and research centre dedicated to cancer care of the highest quality. The Vancouver Island Centre is a brand new state-of-the-art facility (opened in March 2001) and currently treats about 2300 patients annually. It has 4 Varian 21EX and 2 Varian 6EX linacs all equipped with millennium MLCs with dynamic capabilities. All accelerators have amorphous silicon digital portal imaging systems. We have recently commissioned a Varian VariSource HDR brachytherapy system. We are using the Varian Cadplan treatment planning system and Helios inverse planning software along with the 3D-dose compensation module for dMLC. The planning and treatment information is all integrated electronically via the networked Vision/Varis system. The department is truly filmless with digital image acquisition via our GE CT-simulator and Ximatron simulator. The centre has well equipped machine and electronic shops.

The successful candidate will be expected to participate in clinical service such as treatment planning, selecting, acceptance testing, commissioning and calibrating of high-energy radiotherapy equipment.

Suitably qualified candidates can obtain an academic appointment at the University of Victoria (through the Physics & Astronomy and/or Engineering Departments) and supervise graduate students. In addition there is significant research laboratory space (total floor area 100 m^2) available within the clinical physics area. Our research interests include: all aspects of IMRT, electronic portal imaging, Monte-Carlo radiation transport, radiation detector design and multi-disciplinary clinical research.

The successful candidate should have a Ph.D. degree in Medical Physics or a closely related discipline and should be research motivated. Preference will be given to those with experience in radiotherapy physics and certification by the Canadian College of Physicists in Medicine. Outstanding candidates with M.Sc. degrees will also be considered.

Candidates interested in joining our team are encouraged to forward their resumes to:

Dr. Wayne Beckham
Professional Practice Leader for Medical Physics
British Columbia Cancer Agency
Vancouver Island Centre
2410 Lee Ave.
Victoria, BC, V8R 6V5

Ph: (250) 519-5620
Fax: (250) 519-2024
Email: WBeckham@bccancer.bc.ca

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

CONTRIBUTE TO RESEARCH

AN EXCITING OPPORTUNITY - SCIENTIFIC ASSOTIATE IN MEDICAL IMAGING

THE UNIVERSITY HEALTH NETWORK is a major landmark in Canada's health care system and a teaching hospital of the University of Toronto. The UHN emerged from the merger of three academic hospitals and their research institutes: Toronto General Research Institute, Toronto General Hospital – Toronto Western Research Institute, Toronto Western Hospital and Ontario Cancer Institute, Princess Margaret Hospital. Fully affiliated with the University of Toronto and home to members of the Faculties of Medicine, Nursing, Engineering and Arts an Science, University Health Network is one of Canada's largest hospital-based research centres. With over 369 principal investigators, 600 fellows and trainees, 250 students and 800 technical, administrative and support staff, we are one of the University of Toronto's major teaching hospital.

As part of the Research Team in Medical Imaging, the **Scientific Associate** will design and implement research projects, which include the analysis of feasibility and application of a wide variety of scientific principles and concepts. In this role, the Scientific Associate will be responsible for planning, organizing and laboratory research. You will serve as an internal and/or external consultant. May participate in the development of patent applications, and publish related articles in professional journal and publications.

Specific duties for the Scientific Associate in Medical Imaging include: MRI Research involving the central nervous system; implementing imaging solutions to problems in the pathophysiology of central nervous system diseases; writing grants and publishing papers; other duties consistent with the job classification as required and/or requested.

The successful candidate will have completed a Ph.D. in MRI physics with a minimum two years related experience and fluency with UNIX and MatLab as well as excellent written and verbal communication skills. Demonstrated skills in developing material for publication using strong written and verbal communication skills and, the ability of expressing complex technical concepts effectively. Demonstrated ability to work well with people from different disciplines and with varying levels of technical expertise.

Preference will be given to candidates who have previous experience with functional brain imaging, MRI pulse programming experience and experience working in a health care environment.

PLEASE SUBMIT YOUR RESUME TO: Karen Moran, Staffing Specialist
R. FRASER ELLIOTT BLDG, 190 ELIZABETH ST., 2ND FLOOR, TORONTO ON, M5G 2C4
FAX: 416-597-2742 EMAIL: CAREERS@UHN.ON.CA
PLEASE QUOTE VACANCY # 012576

University Health Network thanks all applicants; however, only those selected for an interview will be contacted.