

# OMPI is celebrating 30 years of collaboration and innovation!

Thursday, November 7, 2019



## MARK YOUR CALENDARS!

The Ottawa Medical Physics Institute (OMPI) was established in 1989. That's three decades of medical physics innovation and collaboration in Ottawa. OMPI is marking the occasion with a series of events:

### **1. The Elements of Medical Physics**

**Time:** Thursday September 19 at 15:30

**Location:** Carleton University, Herzberg Laboratories, Room 4351

This year is the 150th anniversary of the periodic table so we have a couple of activities:

- a) There will be a special lecture by Juris Meija (NRC) on "The Periodic Table: How the elements are discovered and named".
- b) We will establish, once and for all, the best/most important element for Medical Physics
- c) To end off the afternoon there will be a science-focussed pub quiz at **Mike's Place** where you can prove your grasp of semi-useful information!

### **2. The Great (Medical Physics) Debate**

**Time:** Thursday October 17 at 16:00-17:00

**Location:** University of Ottawa Heart Institute, 40 Ruskin St., Centre Foustanelas Auditorium (Room 2367)

Two teams, each of two members, will debate a subject in medical physics to be chosen by the membership. The audience will vote for the winners by applause. Be it resolved that...

### **3. Half-day symposium and Dinner in honour of OMPI's 30 years**

Time: Thursday November 7 at 13:00 (Notice that the date is International Day of Medical Physics!)

Location: Carleton university, **Residence Commons Conference Room** (270/272/274)

Stay up to date on event details on the **OMPI30 website**.

## **30 Years of OMPI in InterActions**

Tuesday, October 1, 2019

2019 marks 30 years of the Ottawa Medical Physics Institute (OMPI). On the 2019 International Day of Medical Physics (2019/11/07) OMPI will commemorate the event with a half-day symposium and a festive dinner including its members, trainees and alumni. OMPI's 30 years of collaboration and innovation are showcased in the latest issue of the InterACTIONS, the newsletter of COMP and CCPM.

# THE OTTAWA MEDICAL PHYSICS INSTITUTE (OMPI) CELEBRATES 30 YEARS OF COLLABORATION AND INNOVATION

**Paul C. Johns:** Carleton University, Ottawa, ON  
**Sarah G. Cuddy-Walsh:** University of Ottawa Heart Institute, Ottawa, ON

This year, the medical physics network in Canada's capital – the Ottawa Medical Physics Institute (OMPI) – marks its 30th anniversary. We are a regional network of clinical, research, and academic medical physicists tied together by a passion for research. OMPI connects three essential foundations of medical physics in Ottawa: the federal government labs which are unique in Canada, clinical facilities for imaging and cancer therapy which are some of the most comprehensive in Canada, and Carleton University's Physics Department. Connections within OMPI have fostered an intricate web of research collaborations, which provide the foundation for M.Sc. and Ph.D. graduate education programs. This article celebrates OMPI's success by tracing its 30-year evolution and by highlighting current collaborations which position us for a bright future.

## 1. History

### 1.1 The first steps

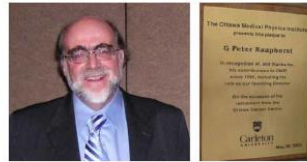
Today's medical physics linkages in Ottawa were first set in motion by Robert L. Clarke. Historically, Carleton University's Physics Department had concentrated all of its efforts on nuclear and particle physics. Originally a nuclear physicist (Ph.D., McGill, 1948), "Bob" Clarke was recruited to Carleton from AECL's Chalk River Nuclear Laboratories in 1968. He contributed greatly to Carleton including being Chair of Physics 1971-1977. He served on several national and international physics bodies including the Canadian Association of Physicists (CAP) Executive and the International Union for Physical and Engineering Sciences in Medicine (IUPESM) where he was Secretary-General.<sup>1</sup>



**Figure 1:** Robert L. Clarke (1922-2005), photographed in 2004, named Distinguished Research Professor in 2005.

At Carleton, Bob's interests expanded into radioisotope imaging<sup>2</sup> and by 1981 he had supervised five M.Sc. theses and one Ph.D. in that area. He then moved into high-intensity focused ultrasound. To this end, he spent many periods as a visiting researcher at the Institute of Cancer Research at the Royal Marsden Hospital in Belmont, Surrey, UK. Though he retired in 1987, Bob continued his research on therapeutic ultrasound<sup>3</sup> long after (figure 1).

In 1985, G. Peter Raaphorst was appointed Head of Medical Physics at the Ottawa Regional Cancer Centre (ORCC) with a mandate to build a strong medical physics group including academic and research linkages. The radiation therapy physics group was strengthened and imaging physics positions were negotiated with the two major hospitals in the city. A collaboration of Raaphorst and Lee Gerig (ORCC) with others including Ian Smith (Inst. for Biodiagnostics of the National Research Council (NRC)) on the science and application of hyperthermia blossomed.<sup>4</sup>



**Figure 2:** Peter Raaphorst, OMPI Director 1989 - 1993, retired from ORCC in 2005. He was honoured by OMPI for his work as founding Director. Peter remains an OMPI member and is a medical physics consultant.

In the same era, medical physicists at the Ionizing Radiation Standards (IRS) group at NRC, the Radiation Protection Bureau (RPB) of Health & Welfare Canada (now Health Canada), and the Ottawa Civic Hospital (now part of The Ottawa Hospital, TOH), also sought to build academic linkages. Peter Raaphorst and Dave Rogers (NRC IRS) were appointed as adjunct research professors to Carleton Physics, followed by Lee Gerig. An undergraduate course in sensing and imaging was augmented by a graduate course in medical imaging physics. In 1987, prior to any structured program,

**[Read the article here](#)** from the Canadian Medical Physics Newsletter, COMP/CCPM InterACTIONS 65(4), October 2019, pages 23-30 (posted with permission), or in the **[the full issue](#)**.

Reference: Johns PC, Cuddy-Walsh SG, *The Ottawa Medical Physics Institute (OMPI) Celebrates 30 Years of Collaboration and Innovation*, [InterACTIONS](#), 2019;65(4):23-30.

## Image Reconstruction Summer School in Yenne, France.

Sunday, June 23, 2019

The first edition of the ATTIRE (Algorithms and Theory for Tomographic Image REconstruction) International Summer School will be hosted in Yenne, France on June 23-29, 2019. Lectures by OMPI member **Rolf Clackdoyle** are part of the unique curriculum. For more information and registration please visit <https://attire.sciencesconf.org>.

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## Canadian Radiation Protection Association 2019 Conference in Ottawa

Monday, May 27, 2019

The CRPA will be holding its annual meeting in Ottawa on 27-30 May, 2019, with the theme "Connecting with Communities". It will take place at the Delta Hotel downtown. For more information refer to the conference [website at http://crpa-acrp.com/home/](http://crpa-acrp.com/home/).

## CNSC Lecture "New Horizons in Radiation Medicine – Protons" by Dr. Rao Khan

Friday, April 5, 2019

**Time:** 1:30-3:00PM

**Location:** CNSC headquarters (280 Slater St.)

The next speaker in the CNSC speaker series is **Dr. Rao Khan**. He will be delivering a presentation titled "New Horizons in Radiation Medicine – Protons" which will provide an overview of this new modality and shed some light on the challenges that arise from proton therapy in cancer clinics. Dr. Khan is an associate professor of radiation oncology and Director of Medical Physics Education at the Washington University School of Medicine. His current research and academic interests include development of new imaging and therapeutic tools to enhance tumor control in patients, 3D printing to provide low cost and desktop-based solution for smaller cancer clinics, and new residency program models to enhance training for radiation oncology physics residents.

Members of the OMPI community are welcome to attend. Please email or call Mariam Iqbal to confirm attendance:

[mariam.iqbal@canada.ca](mailto:mariam.iqbal@canada.ca)

613.995.3061

## TAT11 International Symposium in Ottawa

Monday, April 1, 2019

The **11th International Symposium on Targeted Alpha Therapy (TAT11)** will be held in Ottawa, Canada on 1-5 April, 2019. It is jointly organized by Canadian National Laboratories and TRIUMF with participation by OMPI members. For more information, please refer to the **TAT11 website at <https://www.tat11.com/>**.

## COMP Winter School in Ottawa: Quality and Safety in MRI

Tuesday, February 5, 2019

**Dates:** 5-8 February 2019

**Location:** Lord Elgin Hotel, Ottawa, Ontario

**Details:** More information is available through **COMP** and on **Facebook**.

This event is in collaboration with the Canadian Association of Radiologists (CAR) and the Canadian Association of Medical Radiation Technologists (CAMRT).

