



International Union of Pure and Applied Physics (IUPAP)

Affiliated Commission AC4: Medical Physics

Prof. John Damilakis, Chair

Report on Activities from October 2021 till October 2024

Background

Objectives of AC4:

- (1) to promote medical physics in its scientific and professional aspects in the physics community by interaction with the IUPAP commissions
- (2) to specifically link to IUPAP commissions
- (3) to apply for support of Medical Physics scientific meetings
- (4) to participate in the IUPAP Young Scientist Award program

Mission of AC 4:

The mission of IOMP is to advance medical physics practice worldwide by disseminating scientific and technical information, fostering the educational and professional development of medical physicists, and promoting the highest quality medical services for patients.

Report

1. **International Day of Medical Physics (IDMP):** IOMP celebrates annually the International Day of Medical Physics (IDMP) on November 7 to raise awareness of the Medical Physics profession. All IOMP regional and national organizations are invited to organize events such as webinars, lectures open to the general public and press appearances. IDMP themes, posters, messages and activities for the years 2021, 2022, and 2023 can be found at IOMP's web site: <https://www.iomp.org/idmp/> For

2024, the IDMP theme is ‘Inspiring the next generation of Medical Physicists’. IOMP is planning to host a 24-hour global event. Moreover, IOMP has established the IDMP Award since 2017. This award recognises excellence in Medical Physics with a particular view of promoting medical physics to a larger audience and highlighting the contributions medical physicists make for patient care.

2. **International Medical Physics Week (IMPW)**

The IOMP celebrates every year the International Medical Physics Week (IMPW). This annual event serves as a testament to the invaluable contributions of medical physicists to the field of healthcare and underscores our commitment to excellence in patient care, education, and research. To receive information about the IMPW activities for the period from 2021 to 2024 please click at <https://www.iomp.org/impw-2/>

3. **Education and Training of Medical Physicists:** The IOMP has established the IOMP Accreditation Board to evaluate and accredit Medical Physics education and training events. The list of CPD courses, master programmes and residency programs accredited by IOMP has been uploaded on <https://www.iomp.org/accreditation/> During the last years, the IOMP offered several courses in connection with conferences. Moreover, the ‘IOMP School’ has organized webinars on a wide range of Medical Physics topics. Recorded webinars have been uploaded on IOMP’s website <https://www.iomp.org/iomp-school/> The IOMP decided recently to organize two workshops, one on radiotherapy and another on CT dosimetry and machine learning, with an emphasis on training while also including a theoretical background in the program. The radiotherapy workshop has already been announced <https://www.iomp.org/iomp-school-on-imrt/> IOMP will soon announce the workshop on CT dosimetry and machine learning which will be held in Kuwait, February 2025.

4. **IUPAP Congress Sponsoring Program:** The IUPAP funding has been used to organize a series of scientific events on Medical Physics such as World Congresses and International Conferences on Medical Physics. The Medical Physics and Biomedical Engineering World Congress 2022 (<https://iupesm.org/wc-2022-singapore/>) was held in Singapore. The [International Conference on Medical Physics \(ICMP-2023\)](#) was organized from 6 to 9 of December in Mumbai, India. This conference brought together approximately 1400 colleagues from around the globe,

fostering a rich exchange of ideas and insights. In 2024, IUPAP supports the 24th Asia-Oceania Congress of Medical Physics, 10-13 October, 2024 (<https://aocmp2024.org>). The organizing committee is planning a comprehensive scientific programme including talks by eminent speakers, oral and poster presentations, lunch symposiums, panel discussions and some pre-congress workshops that cover most of the disciplines in medical physics. AC4 has applied for IUPAP support for the Medical Physics and Biomedical Engineering World Congress 2025, Adelaide, Australia (<https://wc2025.org>).

5. **IUPAP Early Career Scientist Award:** This prize is recognizing outstanding contributions made by scientists at early stages of their careers in the field of Medical Physics. The AC4 has announced the awards of IUPAP Early Career Scientist Prizes in Medical Physics at its website <https://iupap.org/who-we-are/internal-organization/affiliated-commissions/ac4-international-commission-on-medical-physics/ac4-awards/> The 2024 call for nomination can be found at <https://www.iomp.org/call-for-nomination-2024-iupap-early-career-scientist-prize-in-medical-physics/>

6. **Emerging Medical Physicists Hub (EMPHub):** The IOMP has very recently decided to establish the Emerging Medical Physicists Hub (EMPHub), a platform dedicated to supporting the next generation of medical physicists. EMPHub will address several critical needs within the profession e.g., mentorship, professional development, networking, and resource accessibility.

September 9, 2024

Prof. John Damilakis

Chair IUPAP Affiliated Commission Medical Physics, AC-4