**EUTEMPE-RX (http://www.eutempe-rx.eu/) is a project for helping MEDICAL PHYSICISTS in DIAGNOSTIC AND INTERVENTIONAL RADIOLOGY achieve MEDICAL PHYSICS EXPERT status and provide CPD for Medical Physicists and MPEs**


**IMPORTANT DATES**
**Application deadline is 20 October 2016**
**First come first served basis**
**Online phase starts 1 November 2016**
**Face-to-Face phase Prague 6 – 10 February 2017**
**Optional Open-Book Assessment Prague 10 Feb 2017**

# Module MPE01: Leadership in Medical Physics: Development of the profession and the challenges for the MPE (D&IR)

**(160 EFOMP MPE-CPD credit points)**

**Aim:**

This module aims to help the future MPE in Diagnostic and Interventional Radiology (including imaging outside the D&IR department proper) acquire the knowledge, skills and competences necessary *to exercise a leadership role within the profession in his own country and in Europe*. The content of the module will provide a framework for discussions for all the other modules. *In the face-to-face phase participants will have the opportunity to discuss the major issues facing the profession directly with the present European leaders of the profession. The participants would also be updated with the latest EU directives, guidelines and activities impacting the role to ensure they are at the forefront of these developments.* The module will achieve its learning objectives using a combination of online and face-to-face readings, fora, presentations and discussions. The online component will consist of sets of compulsory readings. Each set of readings will be accompanied by an online forum for difficulties and to promote reflection and discussion in preparation for the assessment. The online phase will be asynchronous so that participants would not need to take time off their clinical duties and there will not be a problem with time zones. Each presentation during the face-to-face will be presented by a leader in the area and will be followed by a discussion involving a panel made up of present European leaders of the profession. Module participants would put forward the issues they are facing in their own country and receive feedback and advice. As preparation for the assessment, case studies will be discussed with the panel. Face-to-face presentations will be sent to the participants 2 weeks before the start of the phase. The learning outcomes are:

MPE01.01 Take responsibility for researching, evaluating, leading, and offering vision for the development of the role of the MPE (D&IR,) in the ambit of European and national legislation and a holistic vision of healthcare.
MPE01.02 Implement and evaluate strategic solutions to the challenges facing the MPE (D&IR) in own country and Europe.
MPE01.03 Evaluate the various models of management in terms of suitability for a Medical Physics Service and the issue of staffing levels.
MPE01.04 Take responsibility for the development of the role of the MPE (D&IR) in health care governance and management in D&IR.
MPE01.05 Take responsibility for ethical issues in medical physics particularly in the areas of research and radiation protection in D&IR and apply them in practice.
MPE01.06 Discuss the role of the MPE (D&IR) in service development, health technology assessment (HTA), innovation and expert consultancy.
MPE01.07 Research, develop and lead the development of the role of the MPE (D&IR) in the education and training of medical physics trainees and other healthcare professionals.
MPE01.08 Manage the relationship of the MP/MPE with other healthcare professions in D&IR, with patients and with the general public.
MPE01.09 Manage priorities regarding radiation protection research and medical physics input to clinical research projects needing the support of MPEs.
MPE01.10 Implement safety culture in their practice, participate in a clinical audit.
MPE01.11 Participate in networks for research and development at the European and international level.
MPE01.12 Take responsibility for the role of the MPE (D&IR) in accidental and unintended medical exposures in D&IR.
MPE01.13 Interpret the significance of liaising with the Radiation Protection Expert

**Teaching Faculty**

**Prof Carmel J. Caruana** PhD: **Module leader**, lead Role Definition and Education and Training chapters of the 'European Guidelines on the MPE' project, EFOMP lead for the chapter for medical physicists in MEDRAPET
**Dr V. Tsapaki** PhD: **Module leader**, Chairperson EFOMP Projects Committee, Secretary General IOMP
**Prof Eliseo Vano** PhD: Chairperson Medical Working Party on Medical Exposures Article 31 Group of Experts EURATOM Treaty, Chairperson ICRP Comm on Protection in Medicine, IAEA consultant for radiation safety in D&IR
**Dr Stelios Christofides** PhD: Past President, EFOMP
**Prof John Damilakis** PhD: President EFOMP
**Stephen Evans** MSc: Lead for staffing levels in the 'European Guidelines on the MPE' project, past Chairperson EFOMP Projects Committee
**Prof Hilde Bosmans**: Coordinator EUTEMPE-RX project, past Chairperson EFOMP Projects Committee

## ONLINE PHASE: 1 November 2016 – 5 February 2017 (PROVISIONAL PROGRAMME, 56 hours participant time)

The online component will consist of compulsory readings on the topics below. Each set will be accompanied by an asynchronous online forum with prompting questions and responses to difficulties to promote reflection and discussion in preparation for the assessment.

**Topics**

1. Introduction to the module
2. The role of D&IR within healthcare provision, today and tomorrow (including role outside the D&IR department proper).
3. Milestones in the development of the role of the MPE (D&IR) in European legislation and documentation
4. Dimensions of quality health care and the role of the MPE (D&IR)
5. Health care governance and management and the MPE (D&IR)
6. Health care ethics and the MPE (D&IR) (including research ethics, data protection, privacy, dignity, ethical governance, ethical aspects of the medical use of ionising radiation in routine practice and research).
7. Components of quality professional practice (expertise, leadership, teamwork, continuing learning and service to others)
8. European and international recommendations, guidelines, technical documentation and codes-of-practice impacting the activities of the MPE (D&IR)
9. Qualification and curriculum frameworks for the MPE (D&IR) in Europe
10. Project management for the MPE (D&IR)
11. Pedagogical principles and communication skills for the MPE (including curriculum development, communication skills, teaching other healthcare professionals)
12. Management of a Medical Physics Service in D&IR (including providing leadership, quality accreditation, staffing levels, clinical audit)
13. Medical Sociology for the MPE (including role development, inter-professional issues)
14. Occupational - Organizational Psychology and Politics for the MPE (D&IR)
15. Qualitative research methodologies for the MPE(D&IR) (including research for role development, professional issues, service development, management and education)
16. The role of the MPE in service development, health technology assessment, innovation and expert consultancy
17. Strategic planning skills for the MPE (D&IR)

## FACE-TO-FACE PHASE: DAY-TO-DAY PRAGUE 6 – 10 FEBRUARY 2017 (PRELIMINARY PROGRAMME, 24 hours participant time)

**Monday 6 February: Role of the MPE: where is D&IR heading and what should be our role?**

**Registration**

**Introduction:** CJ Caruana, V Tsapaki, H. Bosmans

**Presentations**

1. The role of the MPE before and after 2013/59/Euratom with emphasis on D&IR. Part I (E. Vano, V Tsapaki, CJ Caruana)
2. The role of the MPE before and after 2013/59/Euratom with emphasis on D&IR. Part II (E. Vano, V Tsapaki, CJ Caruana) (including rationale behind the provisions relating to the MPE, update on developments, explaining to local health and radiation authorities, liaising with the radiation protection expert, non-medical exposures)
3. Elaboration of the role of the MPE (D&IR) in the 'European Guidelines on the MPE document' (CJ Caruana)
4. The role of the MPE in fluoroscopy guided procedures performed outside the imaging department (E. Vano, V Tsapaki, CJ Caruana)
5. Non-ionising radiations: EFOMP Policy Statement 14: The role of the Medical Physicist in the management of safety within the MRI environment (CJ Caruana)
6. The educational role of the MPE: Education and training of Medical Physicists, physicians and the healthcare professions (CJ Caruana)

**Case studies for discussion between participants and panel of experts**

Case Study 1: A member of the radiology management team comes up to you stating: "MPEs are not important in D&IR, we don't have the high doses that one finds in radiation oncology". How would you tackle it?
Case study 2: The head of radiology clinic comes up to you and says "We don't need an MPE here as our doses are according to national DRLs". How would you tackle it?
Case study 3: A radiologist has opened a new clinic in which he has 1 digital x-ray machine, a mammography unit and a CT scanner. He says he does not need the service of an MPE as the facility is too small. How would you tackle it?

**Tuesday 7 February: Management issues for MPEs**

**Presentations**

1. Setting up, organizing and managing a Medical Physics Service for D&IR (E. Vano, V Tsapaki, CJ Caruana)

2. Staffing levels for Medical Physics Services: examples of use in D&IR (S Evans)
3. EFOMP Policy Statement 15: Recommended Guidelines on the Role of the Medical Physicist within the Hospital Governance Board (S Christofides)
4. Standards for Medical Physics Services and the creation of a safety culture (S Christofides)
5. Managing the relationship of the MP/MPE with other healthcare professions in D&IR, with patients and the general public (J Damilakis)
6. Clinical Audit (J Damilakis)
7. Managing accidental and unintended medical exposures in D&IR and clinical audits (E. Vano, V Tsapaki, CJ Caruana)
8. Strategic planning: A SWOT analysis for the MPE (CJ Caruana)

**Case studies for discussion between participants and panel of experts**

Case study 1: You have noticed that one of the interventional cardiologists in your hospital tends to produce high cumulative KAPs and long fluoroscopy times. He is aversive to other professions 'telling him what to do'. How would you tackle it?

Case study 2: You want to employ another medical physicist. The manager of the department of radiology tells you that you have enough staff. How would you tackle it?

Case study 3: It has come to your attention that an equipment procurement committee has been set up in your department. You have not been asked to sit on the committee. How would you tackle it?

**Wednesday 8 February: Becoming a centre of excellence: developing, publicising and internationalising the role of the MPE**

**Presentations**

1. The involvement of the MPE at the national, European and international level in the development of medical radiation protection (E. Vano, V Tsapaki, CJ Caruana)
2. Involving yourself in European projects. What are the opportunities? How can you work with EFOMP? (S Evans)
3. Combining clinical work, research and innovation - a case study from Belgium (H Bosmans)
4. Combining clinical work, research and innovation - a case study from Greece (V Tsapaki)
5. Combining clinical work, research and innovation - a case study from Spain (E. Vano, CJ Caruana)
6. Raising the profile of the profession within and outside healthcare (CJ Caruana)

**Case studies for discussion between participants and panel of experts**

Case study 1: You have a good idea for a project, you have discussed it with your colleagues but have found little support and the head of the department says there's no money. How would you tackle it?

Case study 2: There has been a radiological incident at your hospital. A child had a head CT scan and the next day a severe erythema appeared on the face. It ended up as headlines in the newspapers. You are involved in the investigation and need to deal and communicate with other healthcare professions and the media. How would you tackle it? Include a discussion of the ethical issues involved.

Case study 3: You are heavily involved in clinical work, doing research and taking part in two European projects with EFOMP. You cant manage and need to find a way. How would you tackle it?

**Thursday 9 February: Free day for personal study**

*Carmel J Caruana and Virginia Tsapaki will be available to help the participants with difficulties 09:00 – 12:00.*

**Friday 10 February: Assessment Day (optional)**

09:00 – 13:00 The **optional** assessment mode will consist of a 4 hour *open-book* examination consisting of case scenarios (4 to choose 3) of situations faced by the MPE (D&IR) in which candidates are expected to demonstrate that they have achieved sufficient vision to act as future leaders of the MPE (D&IR) profession. Participants are expected to back their arguments with quotes from EU directives and other documentation utilised *during both the online and face-to-face phases of the module*. There will be marks allotted specifically for the online work.

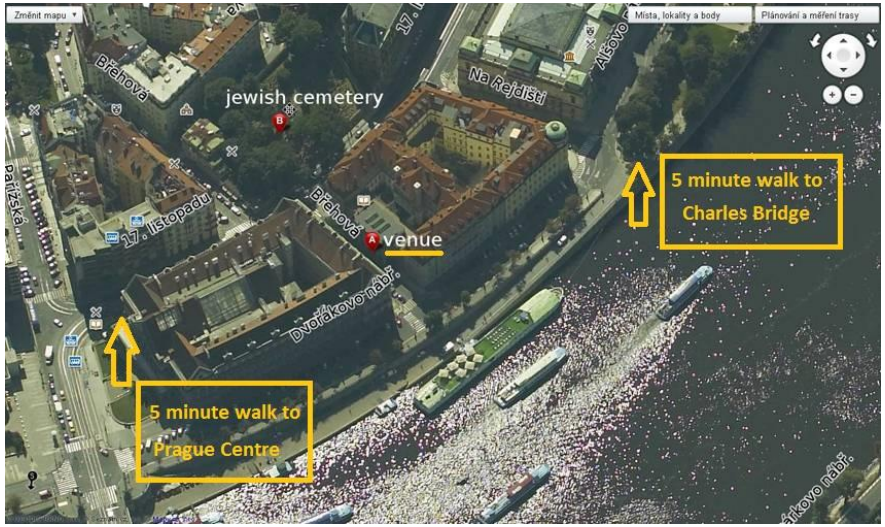
For any queries regarding this module please write to
Carmel Caruana carmel.j.caruana@um.edu.mt
The enrolment form can be found at http://www.eutempe-rx.eu/index.php/more-news/109-enrolment-form
Please fill in the form and send to **info@eutempe-rx.eu**
**Application deadline is 20 October 2016 Late applications considered if places available**

## REGISTRATION FEE

***Accepted applicants will pay a registration fee of Euro 440. There is a reduced fee of Euro 240 from the first 6 applicants from the following countries***: Albania, Belarus, Bosnia Herzegovina, Bulgaria, Cyprus, Estonia, Greece, Hungary, Kosovo, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey, Ukraine. A maximum of 6 participants will be accepted at the reduced fee. *As a service to the profession and patients the module leaders and lecturers have offered their services free of charge.*

# Course Venue and Accommodation in PRAGUE

Prague is one of the foremost cultural and tourist destinations in the world. It is situated in the geographical centre of Europe and you can get there by air, rail or bus from most cities in Europe. Here are some websites for you:
http://www.prague.eu/en http://www.360cities.net/area/prague-czech-republic http://www.pragueexperience.com/index.asp
The **course venue** in Prague is the **Faculty of Nuclear Sciences and Physical Engineering of the Czech Technical University**, Brehova 7, 115 19 Praha 1. It is **located directly in the city centre 5 minutes walk from Prague's world famous historic Prague Centre (Old Town Square) and Charles Bridge.** You can bring your own sandwiches for coffee breaks and lunches, however 6 nice coffee breaks and 3 lunches (Monday to Wednesday) cost only 55 Euro at the faculty. The 55 Euro should be paid to the Faculty of Nuclear Sciences and Physical Engineering on the first day during registration. Please inform Carmel Caruana on carmel.j.caruana@um.edu.mt by 12th January 2017 if you would like this service as the faculty would need to make preparations.




Prague is a major tourist city full of all types of hotels, hostels and all forms of restaurants, cafes and snack bars. All hotel/hostel booking sites include lists of accommodations in Prague. For low cost accommodation we suggest Czech Technical University's MASARYKOVA HOTEL AND HOSTEL located at metro stop Dejvicka. You can find more information about it here: http://www.masarykovakolej.cz/en/ From the airport take **bus 119**, stop at metro station Nádraží Veleslavín (Line A – Green Line), then it's only 2 metro stops to Dejvicka. The whole ride takes 30 – 40 minutes depending on traffic and costs about Euro 1. To the course venue take Metro A (the Green Line) from Dejvicka and stop at Staromestska. The venue is a few minutes walk from Staromestska metro station. To book accommodation go to: http://www.masarykovakolej.cz/en/hotel/rezervation. 1 Euro is approx 27 Czech Crowns (written as CZK or Kc).