

*Academic and Professional opportunities
for young Medical Physicist in France*

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Introduction

- Medical Physicist is the professional who works in a hospital environment and is a member of a clinical team.
- Medical physicist works in all areas of competence :
 - Radiotherapy, Nuclear Medicine, Diagnostic Radiology, Radiation Protection
- French legislation has several decrees which define the role, the missions, the responsibilities and all the prerequisites in order to obtain the DQPRM diploma (professional license) to act as Medical Physicist.
- There is a professional register of medical physicists for the SFPM (national society) members.



Mission

- The medical physicists ensures that equipment, data and calculation methods used in determining and delivering the doses and activity levels administered to the patient in any procedure of radiation exposure are appropriate and used as provided in the Code of Public Health (Articles R. 1333-59 to R. 1333-64;)
- Especially in radiotherapy, it ensures that the radiation dose received by patients corresponds to that prescribed one by the physician.
- In addition, it shall estimate the dose received by the patient during diagnostic procedures performed according to the protocols provided for (Article R. 1333-69 of the Code).



Responsibilities

- The role of medical physicist is defined by an ordinance of consists of :
- Clinical dosimetry, and treatment planning,
- Quality control of equipment and procedures,
- Hazard reports and quality assurance control checks,
- Radiation protection of personnel,
- Radiation protection of hospital environment, and public,
- Dose estimation received by patients and personnel,
- Optimization of imaging methods,
- Identification and management of risks associated with any procedure related to ionizing radiation.
- Training of several health professionals as doctors, medical physicists, radiologists, technicians and nurses



How can you become a Medical Physicist in France

- The basic educational requirement to enter Medical Physics is a university master degree. (5 years)
- To work as qualified/specialist medical physicist in hospital environment requires the DQPRM diploma
(Diplôme de qualification en Physique Radiologique et Médicale)

- 7 Medical physics Masters are recognized compatible with the exercise of the medical Physicist missions and allow to access to the selection tests for the DQPRM diploma. See LegiFrance site :
- <https://www.legifrance.gouv.fr/affichTexte.do;jsessionid=?cidTexte=JORFTEXT000027666417&dateTexte=&oldAction=rechJO&categorieLien=id>



DQPRM : the qualification diploma

- **Academic Institution:**

INSTN (National Institute of Nuclear Science and Techniques)

- **Partners:**
 - **FSMP** (French Society of Medical Physics),
 - **Institut Gustave Roussy**

- **Informations**

<http://www-instn.cea.fr/formations/diplomes-et-titres/liste-des-diplomes-et-titres/diplome-de-qualification-en-physique-radiologique-et-medicale-dqprm,13.html>

- The INSTN lays down detailed rules for the evaluation and admits candidates after assessing the suitability to stand for selection tests.



DQPRM : the qualification diploma

- Admission to qualification training is competitive.
- Are allowed to stand in the selection tests:
 - Candidates holding one of 7 Master degrees listed under section 1 of the order of the 1st of July 2013.
 - Other candidates shall meet the following conditions:
 - ✓ hold at least a master's degree **or equivalent level diploma**, which includes specialized courses in physics and dosimetry of ionizing radiation in medical applications.
 - ✓ have received initial and/or continuous, or evidence of professional experience covering all or part of the areas of physics and radiation dosimetry and the field of medical imaging techniques.



DQPRM : the qualification diploma

- The training is carried out over two years. It alternately includes theoretical courses and periods of hospital training (residency).
- Theoretical courses
 - Training includes two periods of theoretical courses, conducted at INSTN and Gustave Roussy Institute, spread over the two years of the training:
 - ✓ 13 weeks between September and December of the first year, and
 - ✓ 7 weeks during the second year.
- The courses consist of:
 - general knowledge of the anatomy, pathology, radiation biology, statistics and mathematics,
 - specific modules of medical physics in radiation therapy, radiology, nuclear medicine and radiation protection.



DQPRM : the qualification diploma

- Residency

- ✓ 2 years in full equivalent time in one of the accredited hospitals.
- ✓ About 30 hospitals are accredited from the Ministry of Health in France
- ✓ The wages of residents is about 1800 €.



Recognition of professional qualifications of foreign nationals for the exercise of Medical Physics missions in France

- The legal frame is given by the decree of 6/12/2011
- <https://www.legifrance.gouv.fr/affichTexte.do;jsessionid=?cidTexte=JORFTEXT000027666417&dateTexte=&oldAction=rechJO&categorieLien=id>
- Persons, nationals of a country member of the European Union, who followed successfully an academic cycle of master degree and are holders of professional license or a diploma recognized by the member country.
- This professional license or diploma required by the competent authority of this country which regulates the access to the medical physicist profession allowing to act legally as Medical Physicist in this country.



Recognition of professional qualifications of foreign nationals for the exercise of Medical Physics missions in France

- A qualified medical physicist who want to work in France have to prepare and deposit a folder of documents and diplomas, translated in French approving his /her qualification, accompanied with an application to Prefecture.
 - Information of how to prepare the application folder is given by the INSTN.
 - <http://www-instn.cea.fr/formations/diplomes-et-titres/liste-des-diplomes-et-titres/diplome-de-qualification-en-physique-radiologique-et-medicale-dqprm,13.html>
 - A national committee whose members are appointed by the Health Minister exams the application and give the authorization to exercise.
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