




3.00 credits

15.0 h + 15.0 h

Q2

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| Teacher(s) | Gallez Bernard (coordinator) ;Vander Borghet Thierry ; |
| Language : | French |
| Place of the course | Bruxelles Woluwe |
| Main themes | Introduction to the use of radioisotopes : tracer, applications in vitro (pharmacology, RIA) and in vivo (with comparison to other imaging modalities) Preparation of radiolabelled molecules : nuclear reactions (neutron activation, charged particles, fission, generators), radiochemistry Two examples illustrated from the nuclear reaction, radiochemistry, pharmaceutical conditioning, quality controls, and use in nuclear medicine (+ comparison/ integration of other modalities for the diagnosis assessment) : - ^{99m}Tc generator, diphosphonate kits for the use in bone scintigraphy - ^{18}F -fluorodeoxyglucose and applications in PET oncology |
| Learning outcomes | At the end of this learning unit, the student is able to : 1 Answer to three fundamental questions : why and how to use a radioactive isotope, and how to prepare it ? |
| Faculty or entity in charge | CRPR |

| Programmes containing this learning unit (UE) | | | | |
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| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
| Master [120] in Biomedical Engineering | GBIO2M | 3 | |  |
| Certificat universitaire en physique d'hôpital | RPHY9CE | 3 | |  |
| Certificat universitaire en radiopharmacie | RFAR9CE | 3 | |  |