

Recent developments in theranostic radiopharmaceuticals. From radionuclides to clinical applications

17 de Junho de 2019, 11h, Sala de Aulas da Física, Pólo de Loures do IST



Prof. Renata Mikołajczak

National Centre for Nuclear Research, Radioisotope Centre POLATOM, Poland

r.mikolajczak@polatom.pl

BACKGROUND

PhD in physics, DSc in medical biology, associate professor at the National Centre for Nuclear Research, Radioisotope Centre POLATOM. Position: Director's plenipotentiary for Research and Cooperation. Major Achievements: development of technologies for preparation of kits for ^{99m}Tc labelling, $^{188\text{W}/^{188}\text{Re}}$ radionuclide generator, technologies for high specific activity radionuclides production in the nuclear reactor, novel radiopharmaceuticals for clinical practice. Carried out the pioneer works in Poland on the development of peptide based kits for ^{99m}Tc labeling of somatostatin analogues indicated for diagnosis of neuroendocrine tumors and implemented peptide receptor radionuclide therapies of these tumors with ^{90}Y and ^{177}Lu radiolabeled peptides in cooperation with clinical partners.

She is an organizer of multi-centre research teams, developed collaboration with nuclear medicine clinics both in Poland and internationally. Member of Polish Society of Nuclear Medicine, PRP expert group (RadioPharmaceutical Precursors) of the European Pharmacopoeia by EDQM, SNMMI (Society of Nuclear Medicine and Molecular Imaging) Committee of Radioisotopes and Radiopharmaceuticals, editorial board of Nuclear Medicine Review. Project partner in International Atomic Energy Agency (IAEA) coordinated research programs and IAEA expert in the field of radiopharmacy. Leader and contributor of over 20 research grants. Currently coordinates the research activity of Radioisotope Centre POLATOM, including the CERAD project at the Polish Roadmap of Large Research Infrastructure, and yearly budget of over 3 mln EUR. She published over 70 articles in peer-reviewed scientific journals and is an inventor in numerous technologies, patents and utility models (i.e. patent No 205509 Peptide based pharmaceutical kit, method of its preparation and method of preparation of pharmaceutical product from the kit). Recipient of World Intellectual Property Organization for the best invention presented by a woman-inventor at the Brussels Innova 2009.

ABSTRACT

Prof. Renata Mikołajczak will present an overview of Polatom experience on the production of medical radionuclides with a focus on the recent progresses in the use of radiolabeled peptides for cancer theranostics.