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MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

seminar

Wednesday, 21st April, 9.30am, Online

Host: Dr. Jesús Ruiz-Cabello

Nanomaterials and molecular imaging for the non-invasive diagnosis of cardiovascular diseases

Dr. Fernando Herranz
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Cardiovascular diseases are the main cause of death worldwide with atherosclerosis responsible for most of them. The early diagnosis and characterisation of this silent disease is key to avoid clinical complications. In the last years we have been using our multifunctional PET/MRI probe based on the core doping of iron oxide nanoparticles with 68Ga isotope (68Ga-NRT). In this talk, I will present our latest results using 68Ga-NRT for PET and positive contrast MRI. The combined used of these nanomaterials with bioorthogonal chemistry allows for the earliest detection of atherosclerosis reported in mice. The talk will also cover our use of these nanomaterials for targeting microcalcifications, allowing us for the in vivo longitudinal characterisation of atherosclerosis. I will end showing current work with the 68Ga-NRT, centered in neurovascular applications.