



Prof. Eduardo Ruiz-Hernandez

Eduardo Ruiz-Hernandez is the Ussher Associate Professor in Pharmaceutical Chemistry of Nanocarrier Drug Delivery Systems in the School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin. Over the past 10 years, he has participated in 24 highly multidisciplinary collaborative projects funded by a variety of national and international sources (EU FP6/FP7/H2020, BBSRC, SFI, CTMM The Netherlands, Spanish MICIIN, CIBER-BBN) across 7 countries in diverse scientific fields including nanomedicine, materials chemistry, drug/gene delivery and tissue engineering. His research programme aims to design Responsive nanosystems with disease-specific theranostic potential. These systems will dramatically impact the targeted release of diagnostic agents and drugs with nanomedicines that respond to biological cues or changing pathophysiological conditions, thus enabling ultrasensitive diagnosis and exquisite therapy selectivity.

During the last years, he has led a research on stimuli-responsive nanosystems with applications in advanced drug delivery and biosensing (e.g. rapid detection of viral diseases). His research team has identified brain tumors, particularly glioblastoma multiforme (GBM), as an ideal target for controlled release nanosystems. By embedding drug-loaded nanocarriers within polymeric gel depots, it is hypothesized that an improved treatment as compared to the current gold standard can be achieved. As an expert in drug delivery systems, and in collaboration with clinicians and leading international experts, he intends to combine stimuli-responsive nanoparticles modified with tumor-specific molecules and injectable hydrogels that can be locally implanted to provide sustained delivery at the target site. The team is constantly looking for talented and motivated researchers and collaborators to join in this endeavour.