Frontier Chemistry Center
フロンティア化学教育研究センター
講演会

演 題：**Nanobioengineered biosensors, carriers and motors**

講 師：Prof. Jahir Orozco
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in Nanobioengineering,
Institute of Chemistry,
Faculty of Natural and Exact Sciences,
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日 時： 2021 年 11 月 25 日（木）9:00~9:55

※Zoom online platform

https://zoom.us/j/97522693086?pwd=NSs5SCs1dmdSc3ZwcXM0Umt0U2tSZz09

Meeting ID: 975 2269 3086　Passcode: 775885

要 旨：Rational design of biological structures coupled to nanomaterials allows on-demand development of nanobioengineered platforms with improved properties and outstanding performance. In this context, new nanobiotechnology-enabled medical devices aim to provide a convenient real-time diagnosis of diseases closer to the patient and opportunities for more efficient drug delivery and targeted therapeutics concerning conventional technologies.
This lecture is aimed to discuss novel hybrid nano-bioengineered materials-based functional platforms that have been developed in our group for the diagnosis and treatment of diseases. In the first part, it will highlight innovative electrochemical (bio)sensors based on hybrid nano(bio)platforms with improved performance for the specific and highly sensitive detection of analytes of importance in the biomedical field, i.e., enzymatic sensors for detecting hydrogen peroxide, genosensors and immunosensors to detect pathogens and cancer biomarkers. The second part will cover strategies for encapsulating therapeutic agents into functionalized nanoparticles -photosensitive or not- for site-directed specific intracellular cargo delivery; and photosensitive micromotors for enzyme protection and dynamic substrate degradation.

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