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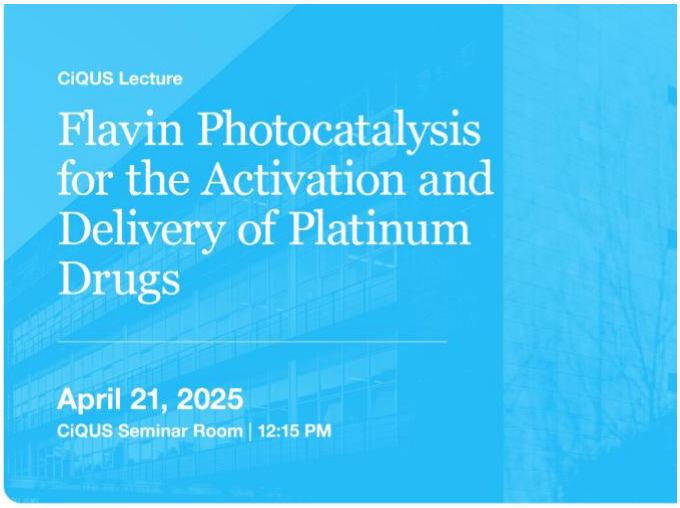


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## Abstract

In recent years, my research group has demonstrated the effectiveness of flavins and flavoproteins as selective and efficient photocatalysts for activating metal-based anticancer drugs [1-3]. Specifically, we have shown that flavin catalysts can photoconvert Pt(IV) precursors into clinically approved Pt(II) agents in the presence of bioreductants, inducing antiproliferative effects in cancer cells with minimal light exposure [1]. Notably, in these reactions, metal complexes act as substrates rather than catalysts, which is uncommon in traditional catalysis. In this contribution, I will highlight how this chemistry has enabled the development of novel strategies for activating and delivering anticancer metallodrugs [4,5].

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## Biosketch

Luca Salassa earned his Ph.D. from the University of Turin (Italy) in 2004. He then pursued postdoctoral research at the University of Montana (USA) and the University of Warwick (UK) as a Marie Skłodowska-Curie Postdoctoral Fellow. In 2012, he was awarded a Ramón y Cajal fellowship, allowing him to join CIC biomaGUNE (San Sebastián, Spain) and establish his independent research career. Since 2017, he has been an Ikerbasque Professor at the Donostia International Physics Center (San Sebastián, Spain), where his group develops photochemistry strategies for activating biologically relevant metal complexes. Luca is the author of over 115 scientific publications and has presented his research at more than 80 conferences and research institutes.