

# Direct characterization of functional materials by haptenized fluorescent dendrimers for in vitro allergic drug diagnose.

Antonio J. Ruiz-Sanchez<sup>1,2</sup>

Daniel Collado<sup>1,2</sup>, Cristobalina Mayorga<sup>2,3</sup>, Maria J. Torres<sup>2,3</sup>, Ezequiel Perez-Inestrosa<sup>1,2</sup>

<sup>1</sup> Departamento de Química Orgánica, Universidad de Málaga—IBIMA, 29071 Málaga, Spain

<sup>2</sup> Andalusian Centre for Nanomedicine and Biotechnology-BIONAND, Parque Tecnológico de Andalucía, 29590 Málaga, Spain

<sup>3</sup> Allergy Unit, IBIMA—Regional University Hospital of Málaga—UMA, 29009 Málaga, Spain

ajruizs@uma.es

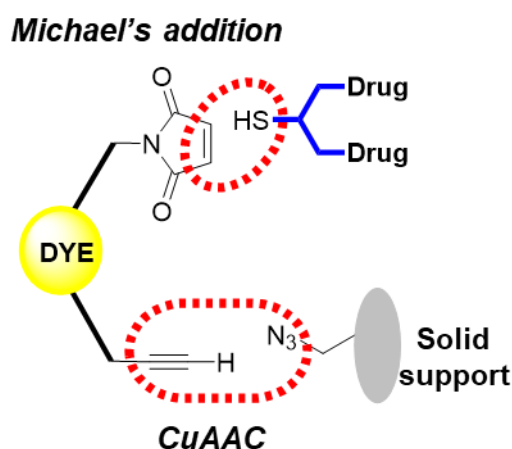
$\beta$ -lactams are the most widely drug prescribed against infections, but they are the most commonly reported medication allergy too. A correct diagnosis of these allergic reactions is crucial to avoid rejecting them by other more expensive broad-spectrum antibiotics, with potential risk factors for the development of multiple drug-resistant bacteria. [1] Skin testing is the most consensual approach to diagnose  $\beta$ -lactam allergy, but this *in vivo* test is not risky free and should be performed under strict hospital surveillance.[2] *In vitro* testing is not still widely used on account of their low sensitivity. We report the use of already haptenized fluorescent dendrimers [3] to control the preparation of materials for *in vitro* test, and their verification by testing on patient sera samples. This fluorescent dendrimer is obtained from a dye with two orthogonal functional groups suitable for click chemistry. [4]

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## FIGURES



**Figure 1:** Toward the synthesis of a fluorescent macromolecular carrier from a model with two orthogonal functional groups able to react through two different click chemistry reactions.