G. J. L. Bernardes

The author presented on this page has published his ***10. article*** *since 2014 in Angewandte Chemie:* "Quaternization of Vinyl/Alkynyl Pyridine Enables Ultrafast Cysteine-Selective Protein Modification and Charge Modulation": M. J. Matos, C. D. Navo, T. Hakala, X. Ferhati, A. Guerreiro, D. Hartmann, B. Bernardim, K. L. Saar, I. Compañón, F. Corzana, T. P. J. Knowles, G. Jiménez-Osés, G. J. L. Bernardes, *Angew. Chem. Int. Ed.* **2019**, *58*, 6640; *Angew. Chem.* **2019**, *131*, 6712.

Gonçalo J. L. Bernardes

Date of birth: May 31, 1980
Position: Reader, Department of Chemistry, University of Cambridge (UK) and Group Leader, Instituto de Medicina Molecular, Lisbon (Portugal)
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Education: 2004 M.Sc., University of Lisbon
2008 D.Phil., University of Oxford with Prof. Ben Davis
2009 Marie–Curie Fellow, MPI for Colloids and Interfaces with Prof. Peter Seeberger
2010–2013 EMBO Fellow, ETH Zurich with Prof. Dario Neri
Awards: **2013** Silver Medal from Ministry of Health (Portugal) for relevant services to Public Health and Medicine; **2013** EFMC Prize for a Young Medicinal Chemist in Academia; **2014** European Young Chemist Award (EYCA2014), Silver Medal; **2016** *Chem. Soc. Rev.* Emerging Investigator Lectureship; **2016** Harrison-Meldola Memorial Prize (RSC)
Research: Chemical biology, protein modification, bioorthogonal chemistry, tissue-specific drug delivery, antibodies, small-molecule ligands
Hobbies: Spending time with my family, travelling

My favorite molecule is cysteine because of its key structural and many, yet unknown, functional roles.

My favorite saying is "Luck takes a damn lot of work".

My favorite science author is Jennifer Doudna. I was fascinated by her recent book *A Crack in Creation* about the discovery of the gene editing tool CRISPR and its potential to control evolution.

The secret of being a successful scientist is hard work, attention to detail, and lots of perseverance.

If I could be described as an animal it would be a wolf, because they are very social animals.

In a spare hour, I either go running or play football—it helps me relax.

My favorite way to spend a holiday is to escape to the beach with my wife and sons.

In the future I see myself on a small farm in Alentejo where I can grow my own food in an eco-friendly environment and fall asleep under the most amazing starry sky!

The most important future applications of my research are tissue-specific drugs.

The biggest challenge facing scientists—and humanity—is climate change and the loss of biodiversity.

Looking back over my career, I wish I had also studied medicine along with chemistry.

Last time I went to the pub I realized I am not a student anymore …

My 5 top papers:

1. "Spontaneous CO Release from $Ru^{II}(CO)_2$–Protein Complexes in Aqueous Solution, Cells, and Mice": M. C. Ferreira, I. S. Albuquerque, D. Matak-Vinkovic, A. C. Coelho, S. M. Carvalho, L. M. Saraiva, C. C. Romão, G. J. L. Bernardes, *Angew. Chem. Int. Ed.* **2015**, *54*, 1172; *Angew. Chem.* **2015**, *127*, 1188. (Synthetic metalloproteins for the delivery of carbon monoxide in cells and in mice.)
2. "Unveiling (−)-Englerin A as a Modulator of L-Type Calcium Channels": T. Rodrigues, F. Sieglitz, V. J. Somovilla, P. M. S. D. Cal, A. Galione, F. Corzana, G. J. L. Bernardes, *Angew. Chem. Int. Ed.* **2016**, *55*, 11077; *Angew. Chem.* **2016**, *128*, 11243. (Our first example of the use of machine learning for target discovery of natural products.)
3. "Vinyl Ether/Tetrazine Pair for the Traceless Release of Alcohols in Cells": E. Jiménez-Moreno, Z. Guo, B. L. Oliveira, I. S. Albuquerque, A. Kitowski, A. Guerreiro, O. Boutureira, T. Rodrigues, G. Jiménez-Osés, G. J. L. Bernardes, *Angew. Chem. Int. Ed.* **2017**, *56*, 243; *Angew. Chem.* **2017**, *129*, 249. (Vinyl ether caging groups for controlled activation of hydroxy-group-containing drugs through a tetrazine-mediated bioorthogonal bond-cleavage reaction.)
4. "Oxetane Grafts Installed Site-Selectively on Native Disulfides to Enhance Protein Stability and Activity In Vivo": N. Martínez-Saez, S. Sun, D. Oldrini, P. Sormanni, O. Boutureira, F. Carboni, I. Compañón, M. J. Deery, M. Vendruscolo, F. Corzana, R. Adamo, G. J. L. Bernardes, *Angew. Chem. Int. Ed.* **2017**, 47, 14963; *Angew. Chem.* **2017**, *129*, 15159. (Controlled stapling of native disulfides on proteins through oxetane bridges.)
5. "Radical-Mediated Thiol-Ene Strategy: Photoactivation of Thiol-Containing Drugs in Cancer Cells": S. Sun, B. L. Oliveira, G. Jiménez-Osés, G. J. L. Bernardes, *Angew. Chem. Int. Ed.* **2018**, *57*, 15832; *Angew. Chem.* **2018**, *130*, 16058. (Intracellular decaging of thiol-containing small molecules.)

International Edition: DOI: 10.1002/anie.201906928
German Edition: DOI: 10.1002/ange.201906928

These are not the final page numbers!

Author Profile

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Find out more about Gonçalo Bernardes in his Author Profile.