

SEM Council Members

Name:

Rafael Giraldo

Council role:

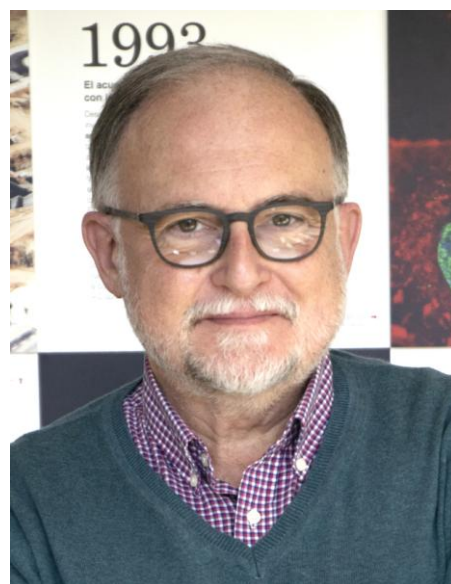
President

Employer or Institute:

Department of Microbial Biotechnology, National Centre for Biotechnology, Spanish National Research Council (CNB-CSIC), Cantoblanco, Madrid, Spain

Title:

Research Professor



Main areas of study/work:

Protein-DNA interactions. G4-DNA. DNA replication. Protein amyloidogenesis. Prion-like proteins. Optogenetics. Synthetic Biology.

Other information of interest:

Member of *Academia Europaea*, section C2 - Cell & Developmental Biology (2010).

Three main or most recent publications:

Vendrell-Fernández S, Lozano-Picazo P, Cuadros-Sánchez P, Tejero-Ojeda MM, Giraldo R. 2022. Conversion of the OmpF porin into a device to gather amyloids on the *E. coli* outer membrane. *ACS Synthectic Biology* 11:655-667. <https://pubs.acs.org/doi/10.1021/acssynbio.1c00347>.

Giraldo R. 2019. Optogenetic navigation of routes leading to protein amyloidogenesis in bacteria. *Journal of Molecular Biology* 431:1186-1202. <https://doi.org/10.1016/j.jmb.2019.01.037>.

Molina-García L, Moreno-del Álamo M, Botias P, Martín-Moldes Z, Fernández M, Sánchez-Gorostiaga A, Alonso-del Valle A, Nogales J, García-Cantalejo J, Giraldo R. 2017. Outlining core pathways of amyloid toxicity in bacteria with the RepA-WH1 prionoid. *Frontiers in Microbiology* 8:539. <https://doi.org/10.3389/fmicb.2017.00539>.

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Keywords:

DNA replication initiation. Amyloids and prions. Optogenetics. Synthetic Biology.