

SEM Council Members

Name:

Rafael Giraldo

Council role:

Vice-President

Employer or Institute:

Departamento de Biotecnología Microbiana, Centro Nacional de Biotecnología, Consejo Superior de Investigaciones Científicas (CNB-CSIC), Cantoblanco, Madrid, Spain



Title:

Research Professor.

Main areas of study/work:

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

Other information of interests:

The structure of eukaryotic chromosomes. The origin and evolution of early microbial life.

Three main or most recent publications:

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. doi.org/10.3389/fmicb.2017.00539.

Molina-García L, Gasset-Rosa F, Moreno-del Álamo M, Fernández-Tresguerres ME, Moreno-Díaz de la Espina S, Lurz R, Giraldo R. 2016. Functional amyloids as inhibitors of plasmid DNA replication. *Scientific Reports* 6:25425. doi.org/10.1038/srep25425.

Gasset-Rosa F, Coquel AS, Moreno-del Álamo M, Chen P, Song X, Serrano AM, Fernández-Tresguerres ME, Moreno-Díaz de la Espina S, Lindner AB, Giraldo R. 2014. Direct assessment in bacteria of prionoid propagation and phenotype selection by Hsp70 chaperone. *Molecular Microbiology* 91:1070-1087. doi.org/10.1111/mmi.12518

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Keywords:

Protein-DNA interactions, DNA replication initiation, Amyloids and prions, Synthetic Biology.