



PRINCIPE FELIPE
CENTRO DE INVESTIGACION

CIPF Seminar

Molecular perspectives on short-term fasting as a nutritional strategy against aging-related diseases

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IMDEA Food, Madrid
Date: **31/01/20- 12:30h**
Place: Salón de Actos CIPF

Abstract: First, through a nutritional trial with 20 healthy volunteers following 36 hours of fasting, they discovered a novel response to short-term fasting in humans consisting on a coordinated change in the saturation of the membrane fatty acids that strongly correlated with other novel biomarkers, including gene transcription and circulating miRNAs, and with the insulin signaling pathway. Another interest in the group is to identify, characterize and develop novel bioactive products able to recapitulate fasting-mediated mechanisms and benefits, including insulin-PI3K inhibitors, mitohormetics, senolytics or boosters of NAD⁺ or NADPH, and to test them as therapeutic and/or preventive strategies against aging-related diseases as diabetes or cancer. Finally, they are also interested in certain fasting-responding genes, as the cell cycle inhibitor p21Cip1 or the sirtuins family. Using genetically-modified mouse models, they are studying the roles of these genes in the protection against cancer or chemotherapy toxicity.

Web Page: <https://www.alimentacion.imdea.org/metabolic-syndrome-group>

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