



PRINCIPE FELIPE

CENTRO DE INVESTIGACION

## The Future of Biomedical Research Lecture Series

### Coordinating Gene Expression: links between transcription and RNA fate

Speaker: **Prof. Jane Mellor**

Department of Biochemistry. University of Oxford.

Date: **9/02/18- 12:30h**

Place: Salón de Actos CIPF

**Abstract:** Accurate gene expression is required to maintain the phenotype of cells and organisms, and errors in this process underlies defects in development and disease. The process begins with regulated transcription and end with the production of the functional protein after translation of cytoplasmic transcripts. Remarkably, genomes are transcribed ubiquitously, antisense to genes and on both strands between genes including promoters. Much of this “non-coding” transcription does not result in stable transcripts, compared to transcription of genic regions, suggesting that they have a different fate. We have been working to understand the basis of differential RNA fate and three different mechanisms will be presented in this seminar. Overall these mechanisms show that the stability of transcripts is actively defined during transcription and varies with environmental conditions.

Mellor et al., 2016 Trends Genet 32, 57-71

Babour et al., 2016, Cell 167:1201-1214

Fischl et al., 2017, Molecular Cell 65, 685–698

Brown et al., 2018 Mol Sys Biol, In press; BioRxiv doi: <https://doi.org/10.1101/187237>

This FBR Lecture will take place at CIPF to celebrate the **International Day of Women and Girls in Science**

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