

## **RNAct Final Conference**

## 14<sup>th</sup>-15<sup>th</sup> September 2022 Polytechnic University of Valencia

RNAct is a Marie Skłodowska-Curie Innovative Training Network (MSCA-ITN) project with the research aim of designing novel RNA recognition motif (RRM) proteins for exploitation in synthetic biology and bioanalytics. The project is now in its final year, and is using a mix of computational and experimental approaches at the sequence and structure levels of RRMs and RNA. The analysis of an extensive well-curated database of RRM/RNA information is now producing relevant insights that we are now using to re-design RRMs, which are then screened using large-scale phage display experiments. RRMs are also being investigated at the atomic level with integrative structural biology approaches. As RRMs are key molecules in posttranscriptional regulation, they are also being explored for use in bio-analytics, for in-cell RNA detection and the design of RNA biochips, and for synthetic biology.

With this conference we intend to bring together experts in the field that cover the broad scope of RNAct, from RRM to RNA and back, while giving the 10 RNAct early-stage researchers a chance to present their results to the scientific community, and get feedback from experts. We look forward to your contributions and participation!

Below you can find an overview of how we will organize the conference. Each session will include a 45 min keynote, as well as short 20 min talks based on abstract submissions.

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Session 1 – RBP-RNA binding	Session 3 – RNA targeting and gene expression regulation
The interaction between RBPs and RNAs is complex; which factors are involved, and how well do we understand them?	How do RBPs regulate protein (and gene) expression at the post-transcriptional level?
Session 2 – RBPs and protein design	Session 4 – Industrial applications of RNA targeting / binding
Given the complex interplay between and RBP/RNA, can we (re-)design them to target specific RNAs?	What is the potential of applying RBPs in research and commercially?
	RNAct Innovation Workshop
Poster session and reception	Investigate opportunities for the application of RRMs.



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