

# Imaging and modelling transcription and translation *in situ*

**A IMABIO consortium webmeeting – September 14<sup>th</sup> 2021**



09:00–09:10 *Introduction to the webinar:* **Laurent Heliot** (ImaBio Consortium Director)

09:10–09:45 **Elisabeth Hinde** (School of Physics, University of Melbourne, Australia)  
*Quantitative imaging of the role oligomer formation plays in transcription factor dynamics*

09:45–10:00 **Andrey Revyakin** (University of Leicester, UK)  
*Single-molecule dynamics of the human RNAP II preinitiation complex*

10:00–10:15 **Nawel Fellouah Ould-Moussa** (MCD-CBI, Toulouse, France)  
*Hi-D dynamic mapping of nuclear changes upon estradiol activation*

10:15–10:50 **Jeremy Dufourt** (IGMM, Montpellier, France)  
*Imaging mRNA dynamics from transcription to translation in living organisms*

10:50–11:05 **Gonçalo Fernandes** (Institut Curie, Paris, France)  
*A synthetic approach to dissect the transcriptional response downstream of the Bicoid morphogen in fruit fly embryos*

11:05–11:25 **Shubham Sahu** (Institut Curie, Paris, France)  
*Analyzing the spatiotemporal structure of heterochronic miRNA transcription using microfluidics live-imaging of nascent miRNA dynamics*

11:25–11:35 (very short) Pause

11:35–12:10 **Hye Yoon Park** (Seoul National University, Seoul, South Korea)  
*Real-time imaging of Arc mRNA during memory formation in live animals*

12:10–12:25 **Sahar Hani** (CEA, Cadarache, France)  
*RNA labelling in live plants reveals single cell transcriptional dynamics: application to phosphate signaling*

12:25–12:40 **Lucie Troisi** (Ecole normale supérieure, Paris, France)  
*Gene Expression Modelling for Optimization of Synthetic Gene Circuit*

12:40–13:15 **Luca Ciandrini** (CBS, Montpellier, France)  
*Biophysical modelling of mRNA translation: from codon usage to ribosome economics*

13:15–13:30 Concluding remarks

13:30–14:00 Discussion