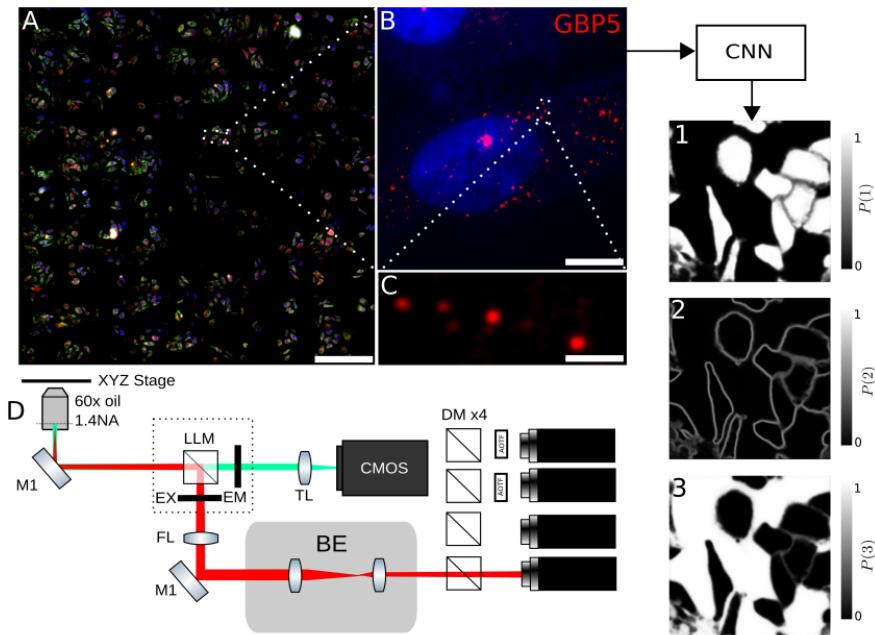


# Research Update

Clayton W. Seitz

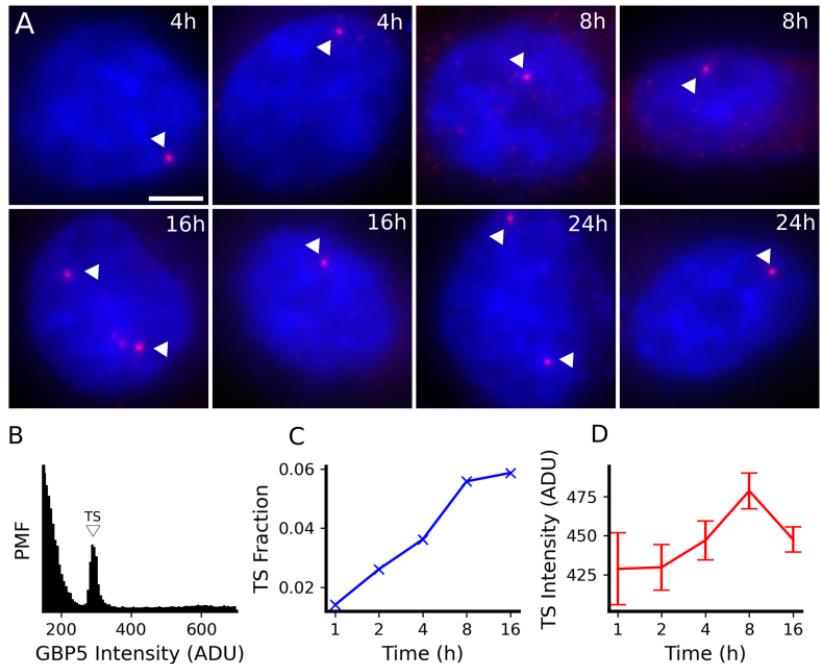
March 25, 2023

# High-throughput imaging of GBP5 transcripts in single cells



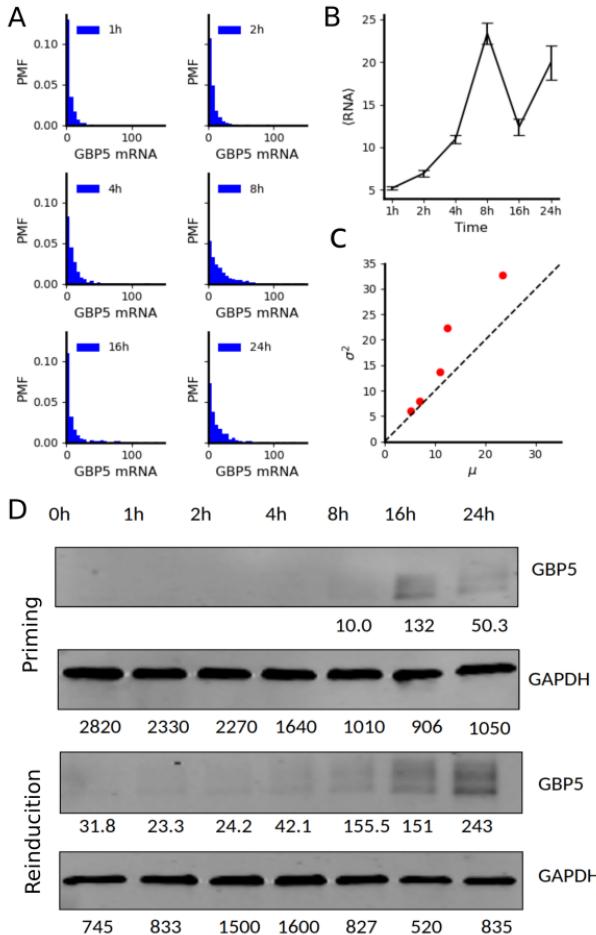
- ▶ (A) Large FOV three channel maximum intensity projection. Scalebar 300μm
- ▶ (B) GBP5 mRNAs. Scalebar 10μm
- ▶ (C) Diffraction-limited image of GBP5 transcripts hybridized with 48 complementary fluorescent probes
- ▶ (D) 4-color widefield microscope used for fluorescence imaging with a 60X Nikon oil-immersion objective.
- ▶ (1-3) Single cell masks predicted by a convolutional neural network (CNN)

# Identification of GBP5 transcription sites

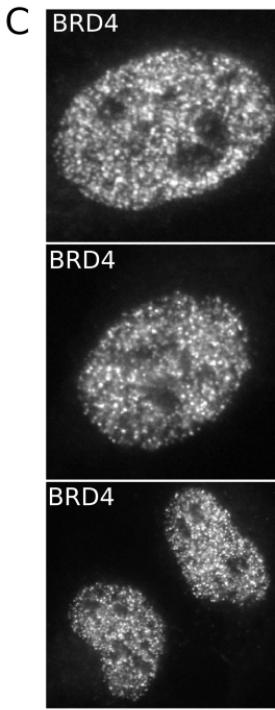
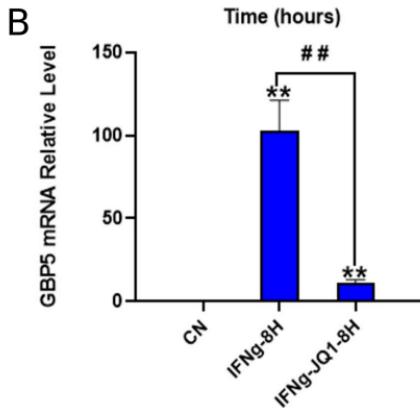
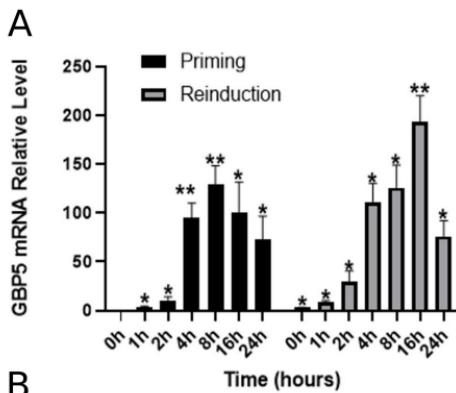


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# High-throughput imaging of GBP5 transcripts in single cells



# RT-qPCR validation and identification of BRD4 as a potential transcription factor



# Super-resolution imaging