

2F Seminar room, BioSystems Building

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"Transcriptional control in time and space"

Upon fertilization, the genome of animal embryos is transcriptionally inactive until the controlled onset of transcription during the maternal-to-zygotic transition. We focus on this genome-wide onset of transcription in zebrafish, with the aim to understand how the transcriptional machinery and chromatin template are brought together in time and space to robustly regulate transcription in hundreds of blastomeres during genome activation. We analyze transcriptional regulation quantitatively (quantification of repressors, activators, number of cells at genome activation, transcripts) and at high resolution (imaging transcripts, chromatin architecture, and transcriptional machinery at high resolution) in the context of the embryo. This allows us to address questions about the timing of transcription initiation during development, synchrony between cells, and the function and establishment of nuclear architecture. I will present our latest results.

Chairperson: Tatsuo Fukagawa If you want to speak Dr. Vastenhouw in person, please let me know. I will arrange the Interview with her. 06-6879-4428, tfukagawa@fbs.osaka-u.ac.jp

世話人:深川竜郎 (<u>tfukagawa@fbs.osala-u.ac.jp</u>, 06-6879-4428) セミナー終了前、後に、Vastenhouw博士と個別のdiscussionを行います。面談希望者は、深川までご連絡ください。