H2020 Marie Skłodowska-Curie Actions
Innovative Training Network No 766347

Isolation of Osteoblast RNA from *Danio rerio* larvae – presenting a novel method or an update to the existing one !

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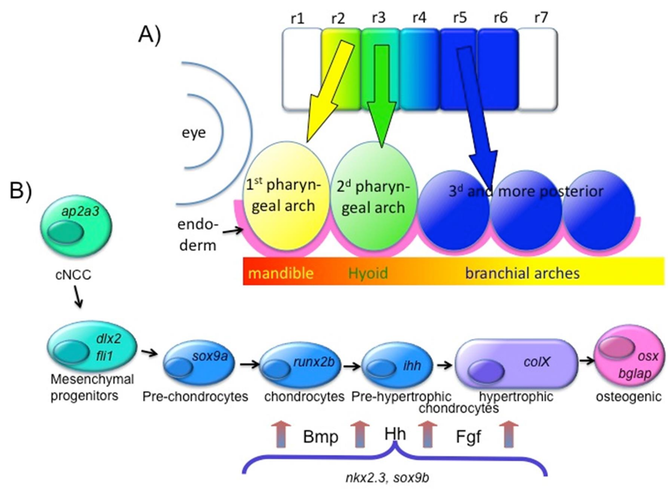
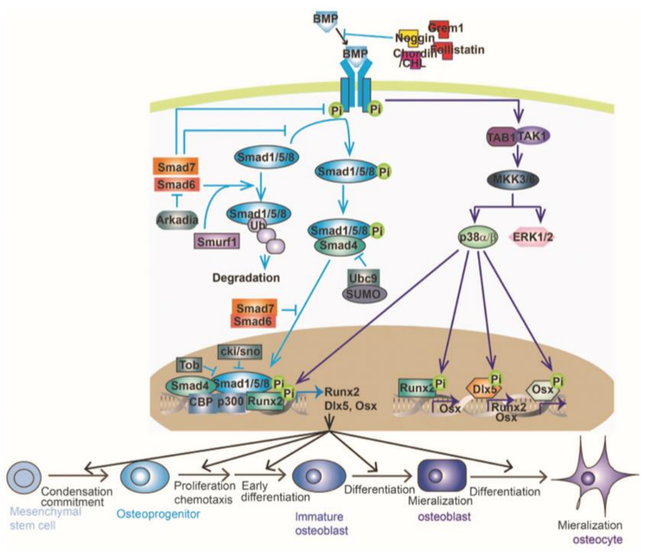
INTRODUCTION :

Cartilage and Bone development in zebrafish



M. Muller et al., 2010

BMP and BMP Signalling

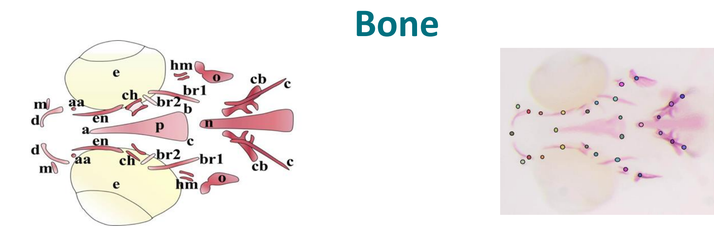


https://doi.org/10.1038/boneres.2016.9

Morphometric description of the zebrafish head skeleton

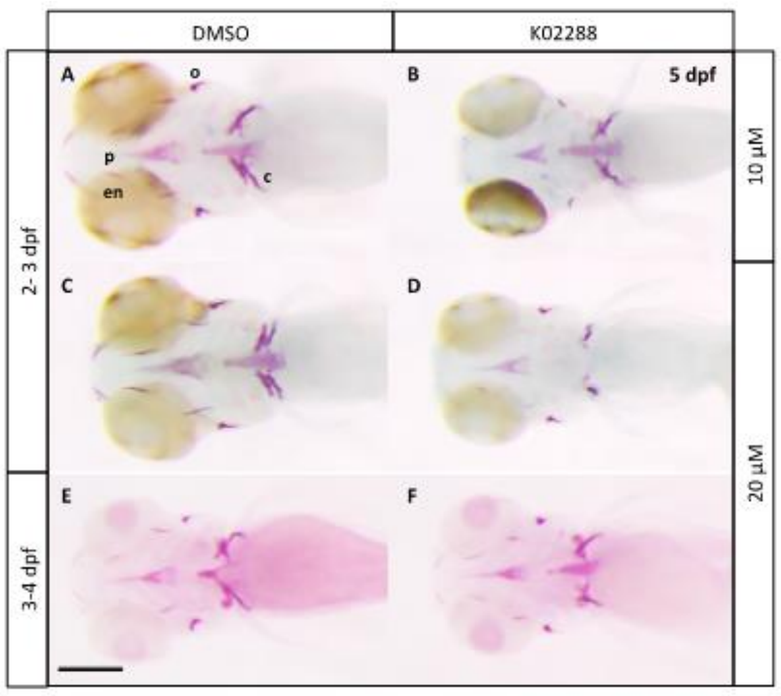
Cartilage

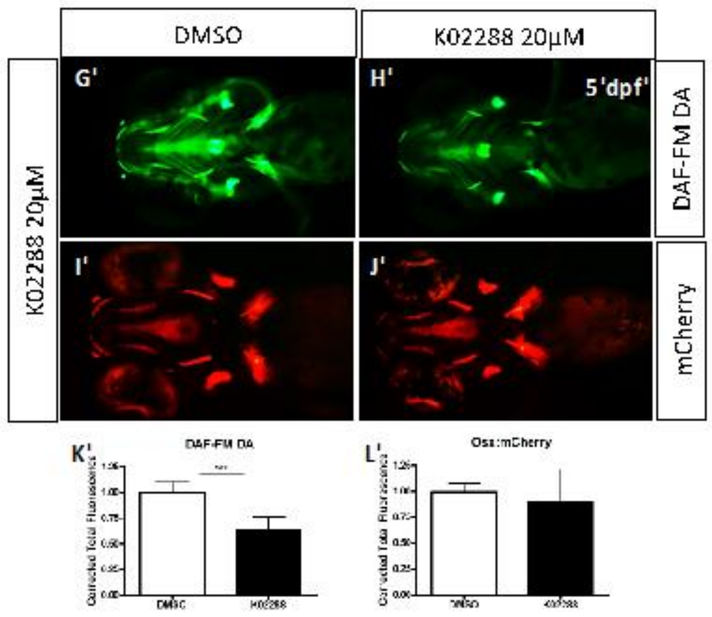
Bone

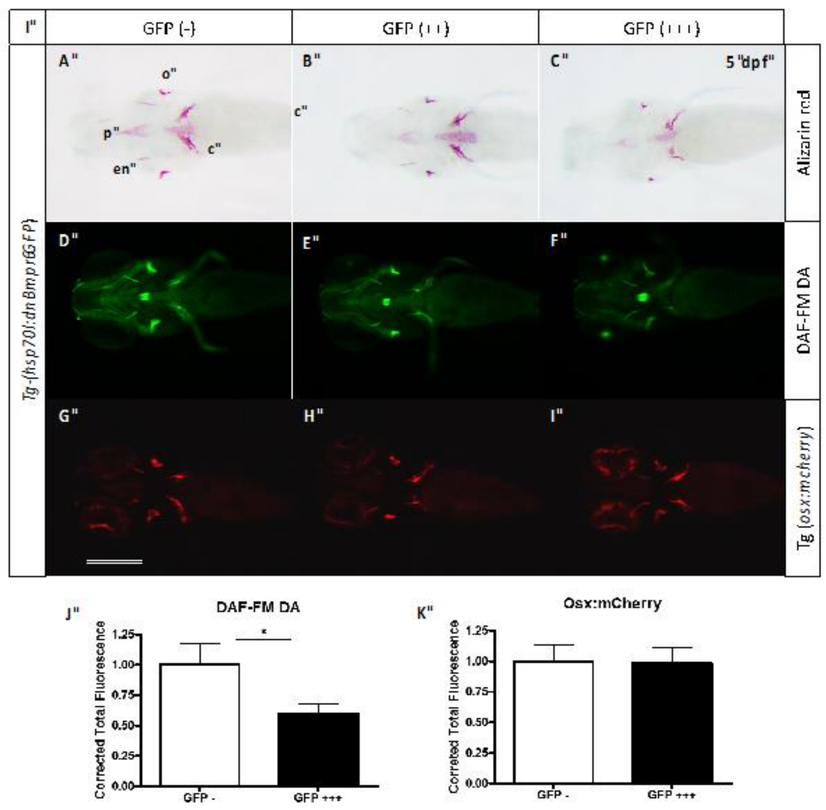


Windhausen T, Squifflet S, Renn J, Muller M (2015). Molecules **20, 7586-7601**

PREVIOUS STUDY : BMP signaling beyond 48hpf is required for osteoblast function, but not for osteoblastogenesis



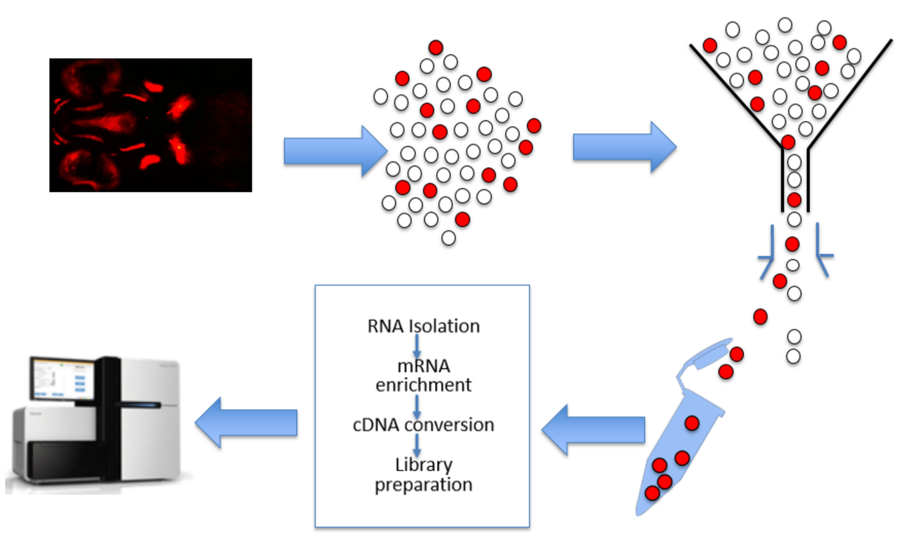




Windhausen T, Squifflet S, Renn J, Muller M (2015). Molecules **20, 7586-7601**

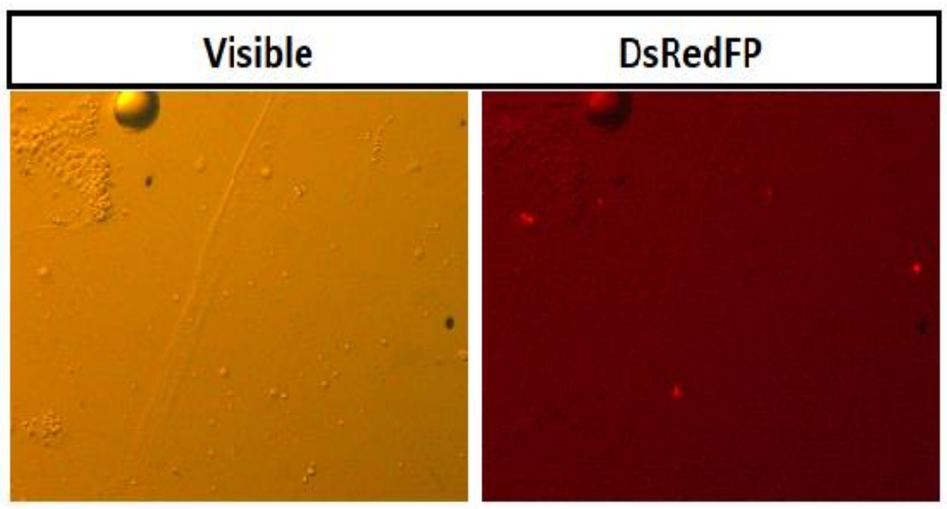
EXPERIMENT PIPELINE :

Gene Expression Analysis

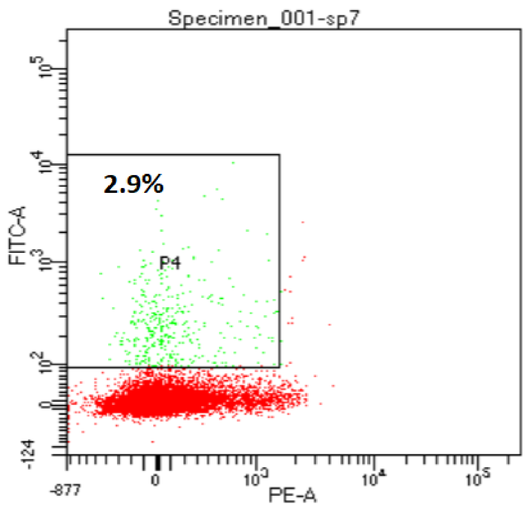


RESULTS :

A. Visualizing Cells After Dissociation



B. Percentage of cells from FACS sorting



FUTURE ACTION PLAN :

- ❑ Optimize the dissociation protocol
- ❑ To isolate Osteoblasts before and after BMP inhibitor treatment
- ❑ Proceed with Single cell transcriptomics and look the genes upregulated and downregulated

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