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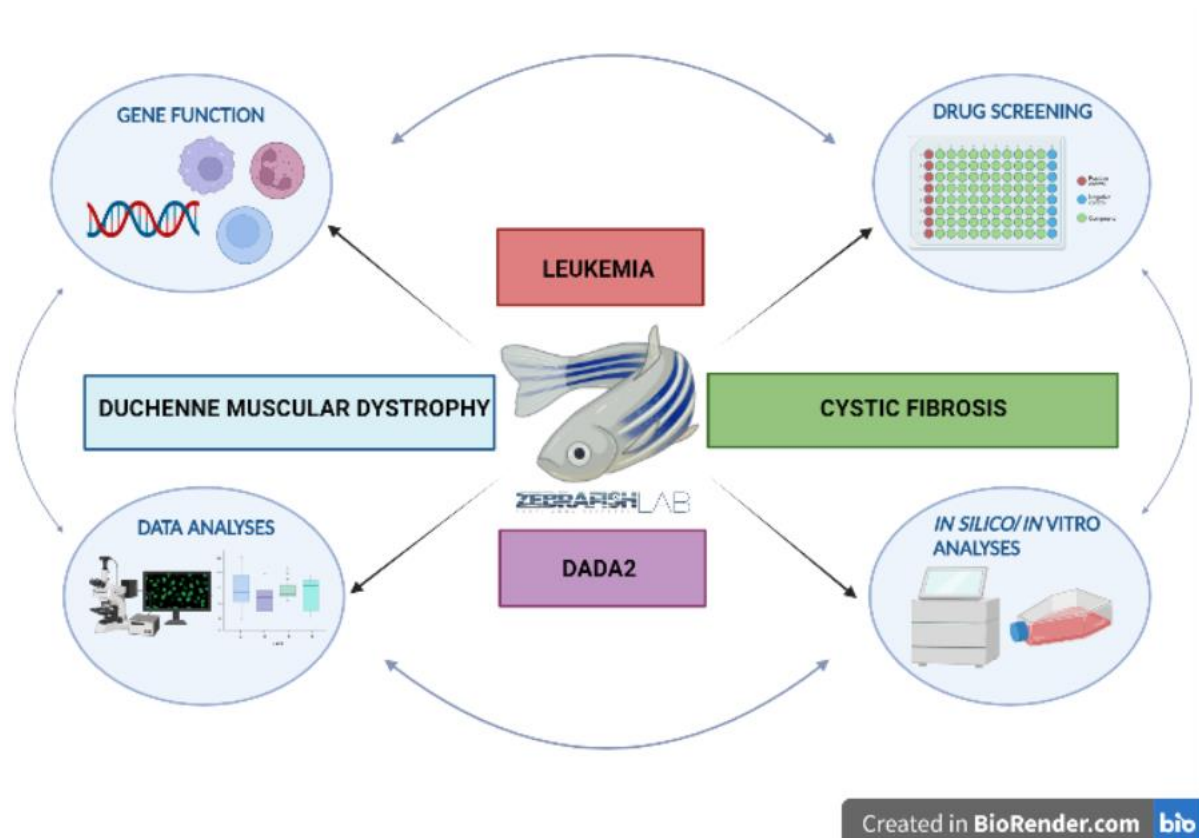
ZEBRAFISH (DANIO RERIO) AS A MODEL TO STUDY THE MECHANISMS UNDELRYING HUMAN DISEASE AND TOOL FOR THERAPEUTIC STRATEGIES

In this experimental project the PhD student will use one of the zebrafish models generated in my laboratory for the functional characterization of candidate genes involved in the onset of human pathologies such as leukemia, skeletal-muscle diseases, immune-mediated infections, and genetic diseases (i.e. cystic fibrosis and DADA2). Possible therapeutic treatments to rescue the pathological phenotypes (leukemia, cystic fibrosis, Duchenne Muscular Dystrophy) will be considered.

The read-out techniques will be live imaging of immune-cell reporter lines (i.e. HSPCs, alpha-actin skeletal muscle, macrophages, neutrophils, TNFα) already available in the zebrafish facility of the PI, in situ hybridizations and immunofluorescence, RT-qPCR and western blot analyses.