



Universität
Basel

Research Project

The molecular and genetic basis of kin recognition in zebrafish (Oded Mayseless)

Third-party funded project

Project title The molecular and genetic basis of kin recognition in zebrafish (Oded Mayseless)

Principal Investigator(s) [Schier, Alexander](#) ;

Organisation / Research unit

Departement Biozentrum / Cell and Developmental Biology (Schier)

Department

Project start 01.01.2021

Probable end 31.12.2022

Status Completed

Kin selection is a widespread phenomenon through which individuals gain indirect fitness by directing altruistic behaviors toward genetically related individuals. The mechanism that permits recognition between individuals, based on genetic relatedness, needs to be highly selective and refined. Despite its critical nature, the sensory mechanisms governing this phenomenon remain incomplete. Larval zebrafish prefer kin-specific vs nonkin odors. Larvae that have been isolated or exposed to non-kin cues lose their capacity to recognize kin. Specific olfactory sensory neurons (OSNs) and the highly polymorphic major histocompatibility complex (MHC) have been implicated, however the molecular mechanisms which mediate the specificity of kin odor recognition are unknown. By combining behavioral, functional, and molecular approaches, we will unravel the molecular basis of kin recognition.ă

ă

Financed by

Foreign Governmental Research Agencies

Add publication

Add documents

Specify cooperation partners