



Universität
Basel

Research Project

CellularBiographies / Global views of cell type specification and differentiation

Third-party funded project

Project title CellularBiographies / Global views of cell type specification and differentiation

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

Organisation / Research unit

Departement Biozentrum / Cell and Developmental Biology (Schier)

Department

Project Website <http://schierlab.biozentrum.unibas.ch>

Project start 01.01.2020

Probable end 31.12.2024

Status Active

The project is dedicated to studying the development of individual cells and aims to understand the logic governing cell differentiation. Each cell in our body has its own specific biography that is defined by its pedigree relationship with other cells (lineage) and its history of gene expression. This biography also affects the cell type into which a cell develops. Alex Schier's team of researchers has developed two new technologies that make it possible to reconstruct each stage in the lineage of thousands of cells for the first time.

Using new analytical methods, the researchers now hope to gain comprehensive insights into how cellular diversity emerges and how specialized cells develop to take on their very specific functions. To do so, the researchers are using genetic methods to analyze the lineage trees and trajectories as well as how they interact. Based on the zebrafish model, the project aims to help develop a comprehensive overview of cell development in vertebrates.ä

Financed by

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