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Biology diploma, University Heidelberg, 2000
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Current Position

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Keywords

p53, aggregation, protein design, cancer, zebrafish, transgenesis

Science

In the SWITCH lab I currently run two projects, both centred on the tumour suppressor p53. In the model organism zebrafish I am trying to understand how the presence of an aggregation-prone mutant of p53 influences tumour biology. To this end I created several transgenic lines that I crossed into a tumour-prone background.

The second project focuses on protein design: In an effort to reduce the aggregation propensity of p53 I introduced charges into the hydrophobic core of the protein and added specific stabilising mutations to these new p53 variants. I am in the course of characterising these novel mutants.

Selected Publications

Ghassibe-Sabbagh M, Desmyter L*, **Langenberg T***, Claes F, (…), Carmeliet P, Vikkula M (2011):
FAF1, a Cleft Palate Gene with a Conserved Function in Zebrafish
American Journal of Human Genetics Feb 11;88(2): 150-161

Langenberg, T, Kahana A, Wszalek JA, Halloran MC (2008):
The eye organizes neural crest cell migration.
Developmental Dynamics 237(6):1645-52.

Langenberg T and Brand M (2005):
Lineage restriction maintains a stable organizer cell population at the zebrafish midbrain-hindbrain boundary.
Development 132 (14): 3209-16

Langenberg T, Brand M and Cooper MS (2002):
Imaging brain development and organogenesis in zebrafish using immobilized embryonic explants.
Developmental Dynamics 228 (3): 464-74.