UX for Cancer Diagnostics – an Interdisciplinary Project for Informatics (IDP) in Cancer Diagnostics

for the Munich lab of 2NA FISH, a biotech-startup at TU Munich, EXIST Forschungstransfer grant holder and winner of the Medical-Valley-Award

Advance Cancer Therapy Matching:

Ready for a startup challenge? Join 2NA FISH, a Munich-based biotech startup on a groundbreaking mission to revolutionize cancer diagnostics. We seek programming experts to shape the future of spatial transcriptomics and fight cancer impactfully.

At 2NA FISH, we use Fluorescence in situ Hybridization (FISH) to detect RNA in cells. This method works by attaching fluorescent molecules to RNA, which can then be seen as bright spots under a microscope (Figure 1). The information of the RNA-profile of a tumour can be used to find the optimal therapy for an individual patient.

2NA FISH is a high-tech startup, doing cutting edge research in cancer biology. We value scientific curiosity and integrity as well as an organized, reliable and reproducible style of work. Join us in our mission to make a difference in the life of millions.
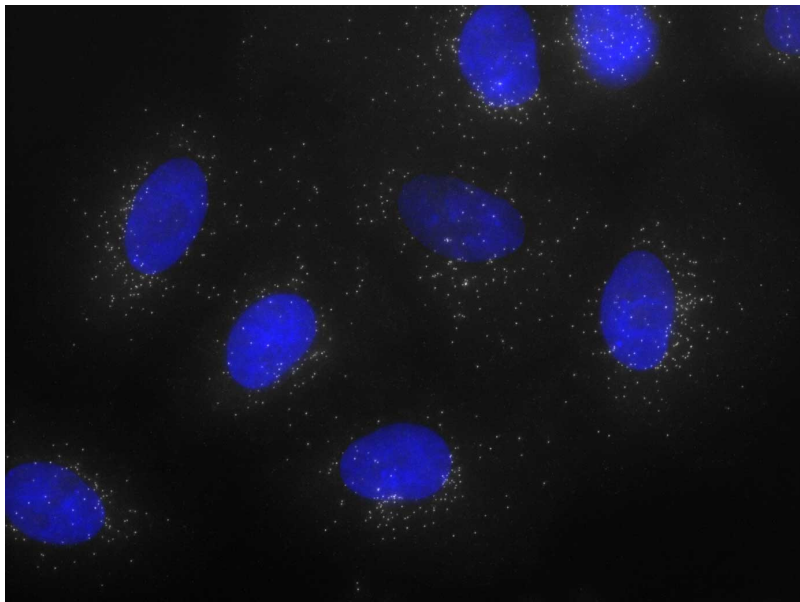

Figure 1: RNA-FISH image of nine cells. Bright Spots around the blue areas are detected RNA. Cell nucleus colored in blue. Taken from https://www.biosearchtech.com/support/education/stellaris-rna-fish .

Project Outline – UX for Cancer Diagnostics Baseline:

Build a desktop app for our python software. We have created data analysis tools, that can generate meaningful diagnostics from microscope images. Our users, scientists and physicians, need a smooth way of accessing the information from their analysis. We want to build a desktop app in PyQT for Windows, Mac and Linux that provides them with a seamless access to their data, even if they have no background in data.

In general the main Work Packages are:

- General User Interface and bindings to our Python Package
- An interactive Image Viewer
- A sustainable CI/CD Pipeline

Your own ideas are always welcome!

Your IDP at 2NA FISH:

- Work together with our experienced scientists in the lab to learn more about the biological backgrounds or request additional data

- Have regular 1on1's with the founders and get qualitative feedback on your work

- Work remotely. We have our office near the TUM Informatics Faculty, where you are always welcome, but you can work remotely if you like!

- Start date: Summer Semester 2024

What you should bring to 2NA FISH:

- Experience in programming with Python

- Experience with image analysis

- Basic knowledge of common data science techniques

- Basic knowledge of Git

- Reliable and organized style of working

- High scientific curiosity

- Optional plus: Basic knowledge and enthusiasm in biology

How to: Please email your CV and short cover letter and the subject line "IDP 2NA FISH" to hiring@2nafish.bio. We look forward to receiving your application. Together, let's make a difference in the lives of millions!