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CODA: 3D tissue reconstruction pipeline | HuBMAP | JHU-TMC V.1

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Protocol status: Working
We use this protocol and it's working

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Abstract

CODA pipeline with 6 parts

Setting up CODA environment and preparing sample dataset

1 dx.doi.org/10.17504/protocols.io.q26g71rpkgwz/v1

Calculate registration on low-resolution tissue images

2 dx.doi.org/10.17504/protocols.io.kxygxym3dl8j/v1

Deep learning multi-labelling of tissue structures using training on manual annotations

3 dx.doi.org/10.17504/protocols.io.81wgbz1×3gpk/v1

Register the deep learning labelled images and Construct 3D tissue matrix

4 dx.doi.org/10.17504/protocols.io.yxmvme7eog3p/v1

Nuclear coordinate generation

5 dx.doi.org/10.17504/protocols.io.dm6gpz8z8lzp/v1

Register the nuclear coordinates and Construct 3D cell matrix

6 dx.doi.org/10.17504/protocols.io.n2bvjnrnxgk5/v1