Training report for StarDist 2D model (Celf2 TTX)

Information:

The neural network was trained from scratch for 100 epochs on 38 paired image patches (image dimensions: (570, 763), patch size: (304,304)) with a batch size of 2 and a mae loss function. Key python packages used include: TensorFlow (v 0.1.12), Keras (v 2.3.1), CsbDeep (v 0.6.3), Numpy (v 1.19.5), Cuda (v 11.0.22)

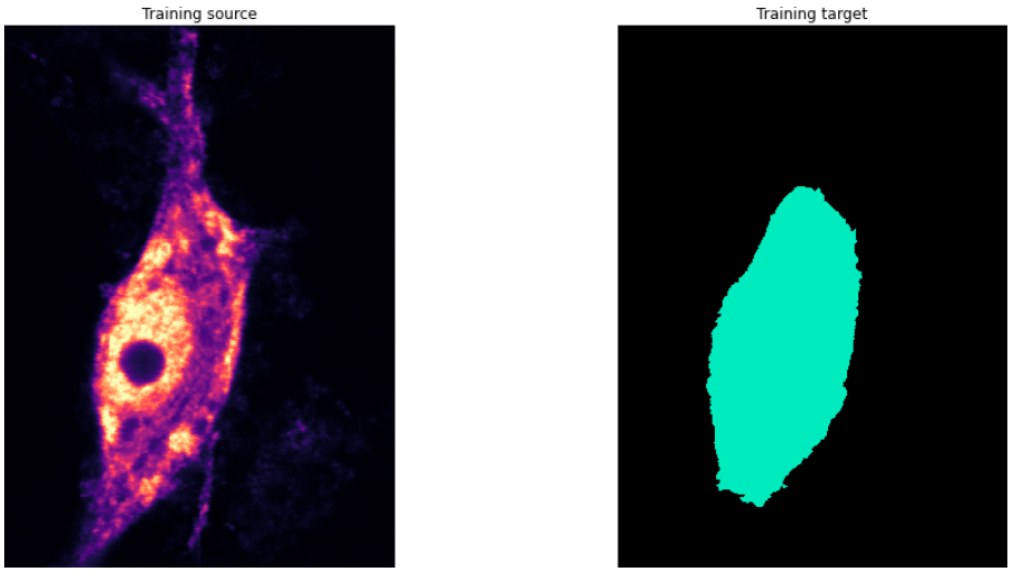
Build cuda_11.0_bu.TC445_37.28845127_0). The training was accelerated using a Tesla P4 GPU.

Augmentation: The dataset was augmented by a factor of 4

Parameters:

Parameter	Value
Number of epochs	100
Patch size	304x304
Batch size	2
Number of steps	80
Percentage Validation	10
N rays	32
Grid parameter	2
Initial Learning Rate	0.0003

Example Training pair



References:

- StarDist 2D: Schmidt, Uwe, et al. "Cell detection with star-convex polygons." International Conference on Medical Image Computing and Computer-Assisted Intervention. Springer, Cham, 2018.
- Augmentor: Bloice, Marcus D., Christof Stocker, and Andreas Holzinger. "Augmentor: an image augmentation library for machine learning." arXiv preprint arXiv:1708.04680 (2017).