

Deep Learning Automated Segmentation for Muscle and Adipose Tissue from Abdominal Computed Tomography in Poly-trauma Patients

Table S1. Hyper-parameters for deep learning network training.

Hyper-Parameter	Setting
Training-validation partition for model development	Randomly-assigned; 80% training (n = 2729) 20% validation (n = 684)
Convolution kernels	3 x 3, window 1 (all except final layer) 1 x 1, window 1 (final layer)
Number of deep features	Block 1 & 9 : 16 Block 2 & 8 : 32 Block 3 & 7 : 64 Block 4 & 6 : 128 Block 5 : 256 Final convolution layer : 4
Activation functions	Parametric ReLU (all except final layer) Softmax (final layer)
Optimizer	Adam
Loss function	Categorical cross-entropy
Learning rate	0.0001
Dropout	0.05
L2 (ridge) regularization penalty	0.001
Max-pooling	2 x 2, strides 2
Batch normalization	Momentum 0.99; Epsilon 0.001
Early stopping criteria	Patience 2000 and delta 0.001

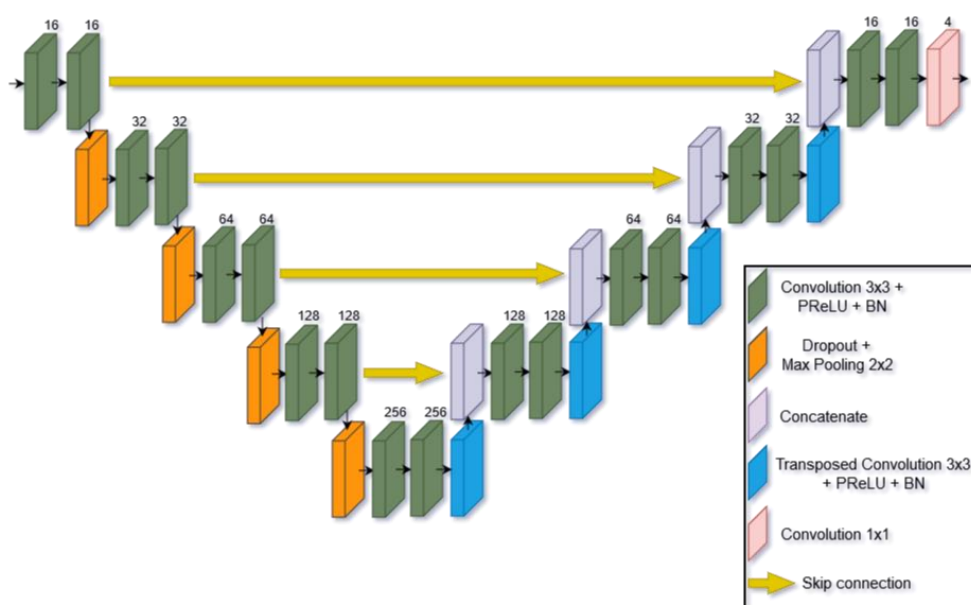


Figure S1. Schematic block diagram showing the architecture of the deep learning neural network for automatic segmentation