Optical coherence tomography of human fetal membrane sub-layers during loading: supplement

KAYVAN SAMIMI,[1] EMMANUEL CONTRERAS GUZMAN,[1] MAY WU,[1] LINDSEY CARLSON,[2] HELEN FELTOVICH,[2] TIMOTHY J. HALL,[3] KRISTIN M. MYERS,[4] MICHELLE L. OYEN,[5] AND MELISSA C. SKALA[1,6,*]

[1]*Morgridge Institute for Research, Madison, WI 53715, USA*
[2]*Department of Obstetrics and Gynecology, Intermountain Healthcare, Provo, UT 84604, USA*
[3]*Department of Medical Physics, University of Wisconsin, Madison, WI 53705, USA*
[4]*Department of Mechanical Engineering, Columbia University, New York, NY 10027, USA*
[5]*Department of Biomedical Engineering, Washington University, St. Louis, MO 63105, USA*
[6]*Department of Biomedical Engineering, University of Wisconsin, Madison, WI 53706, USA*
*mcskala@wisc.edu

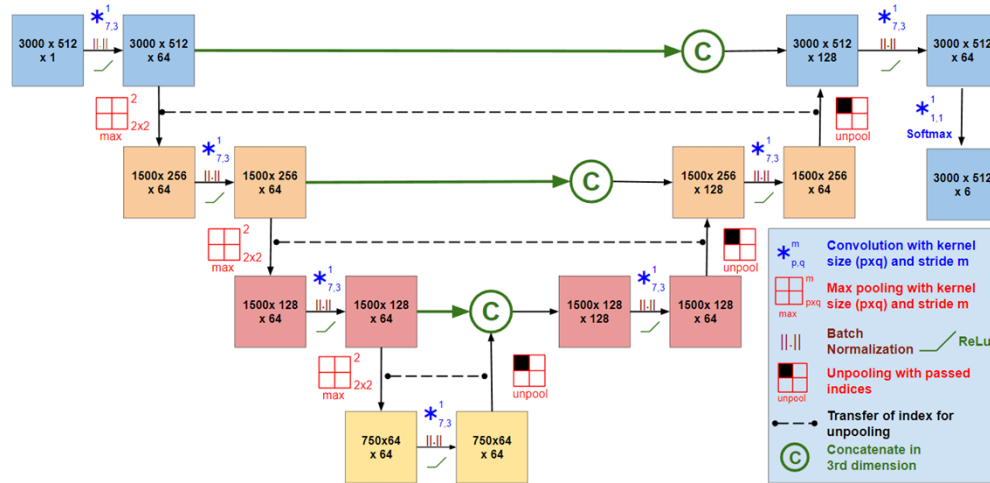# OPTICAL COHERENCE TOMOGRAPHY OF HUMAN FETAL MEMBRANE SUB-LAYERS DURING LOADING: SUPPLEMENTAL DOCUMENT

Fig. S1. The ReLayNet [1] architecture is a typical U-net encoder decoder network in which the encoding blocks include a convolution layer, batch normalization layer, Rectified Linear Unit (ReLu) activation layer and max pooling layer operations, and the decoding blocks include unpooling layer, concatenation layer, convolution layer, batch normalization and ReLU activation function layer. Modifications from the original network include changing the number of prediction classes in the final softmax layer from 10 to 6 (corresponding to saline below the sample, amnion, spongy, chorion, decidua, and air above the sample). The dimensions of the feature maps are indicated in the box.

References

1. A. G. Roy, S. Conjeti, S. P. K. Karri, D. Sheet, A. Katouzian, C. Wachinger, and N. Navab, "ReLayNet: retinal layer and fluid segmentation of macular optical coherence tomography using fully convolutional networks," Biomed. Opt. Express, BOE 8, 3627–3642 (2017)