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Supplementary: Learning from Similarity Proportion Loss for Classifying Skeletal Muscle Recovery Stages

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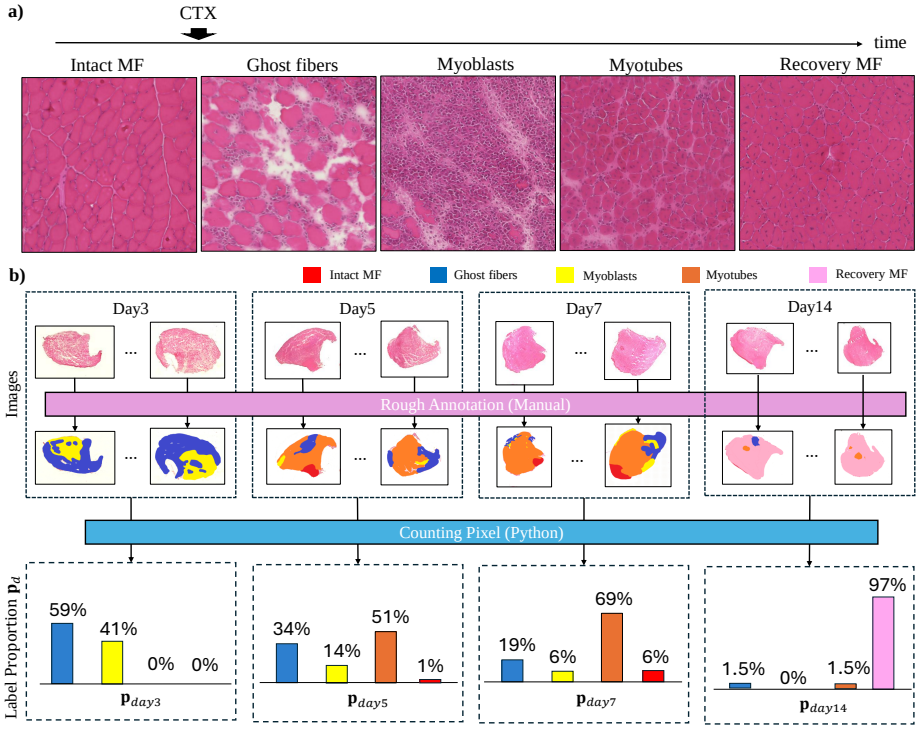


Fig. 1. How to compute proportion for each day. Class proportions are calculated based on day labels, with Day 0 representing intact fibers (100% red). Rough annotations are made using a circular pen in Windows Paint, serving as an index but not precise for classifier evaluation. Class proportions are determined by counting pixels of each class from these annotations and summing them per day label in the training dataset.

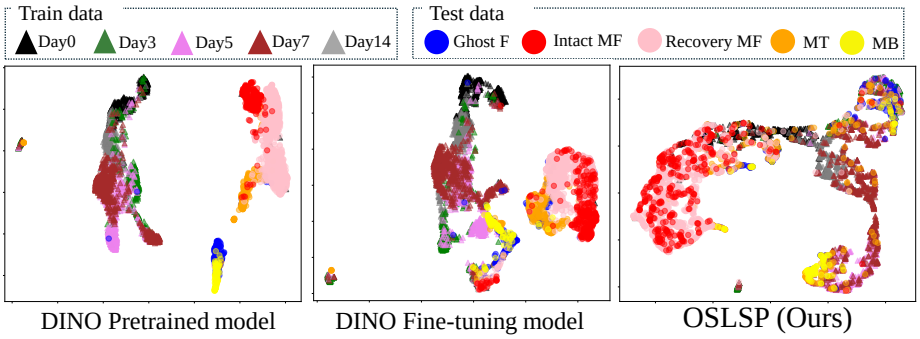


Fig. 2. UMAP of instance features. Ghost F: Ghost fiber, MF: myofiber, MT: myotube, MB: myoblast.

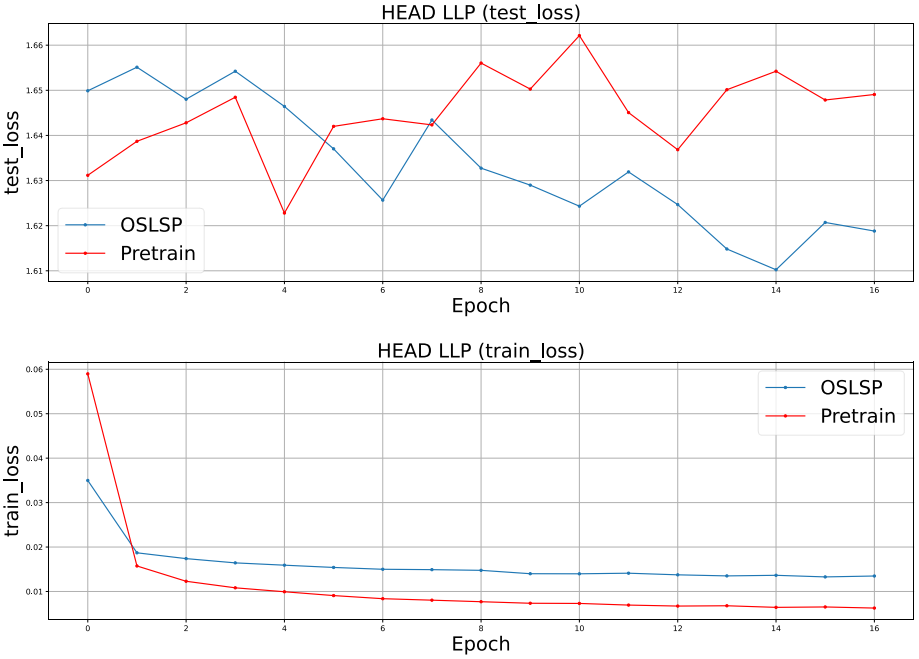


Fig. 3. Test loss and train loss over epoch in LLP of classification layer(HEAD) with different feature extractors OSLSP(Ours), Pretrain model. We compute test loss by cross-entropy.

Table 1. List of WSI image data.

Purpose	Day0	Day3	Day5	Day7	Day14
Training data	5	6	6	6	3
Annotated test data	1	1	1	1	1