



Supplementary Figure S2. Training curves of the six convolution neural net models. Initially, we trained each model 10 epochs using Cohen’s quadratic weighted kappa as the loss function (orange area) and then trained further 140 epochs using our custom weighted kappa (blue area). We then selected an Epoch for prediction that showed a high validation kappa while not having an extremely high training kappa value, as overfit models performed poorly in the model ensemble calculation. Validation and training accuracies are lower when compared to the final prediction as the kappa metric is computed for each mini-batch and then averaged and thus dependent on batch size and the metric during training an on-line validation.