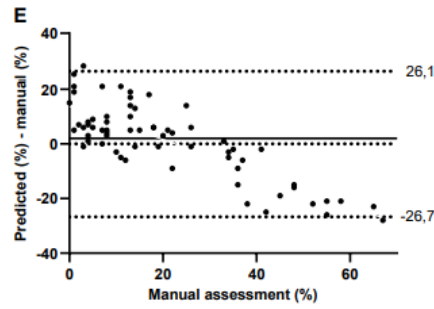
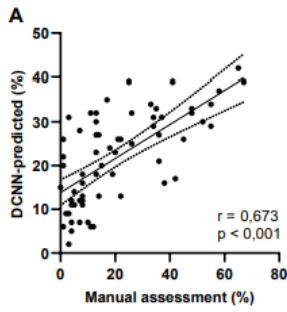
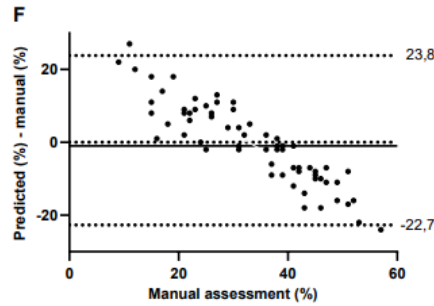
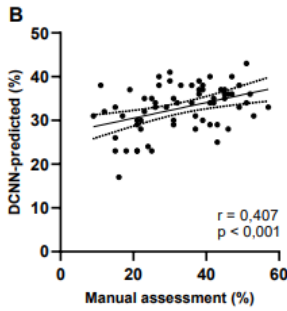


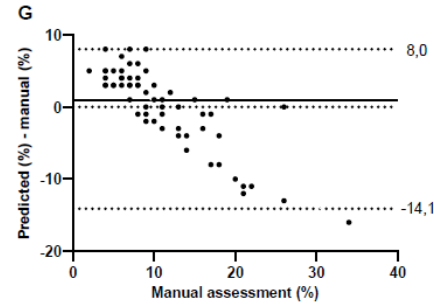
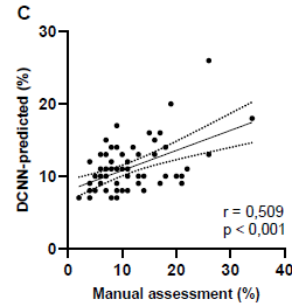
Rapid progressive spermatozoa



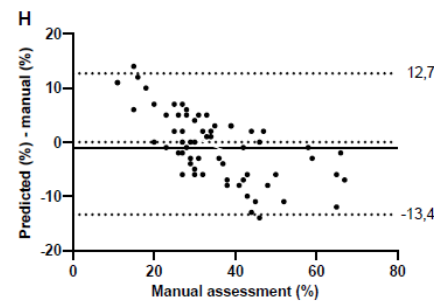
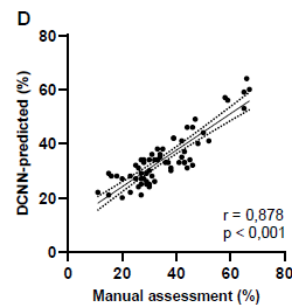
Slow progressive spermatozoa



Non-progressive spermatozoa



Immotile spermatozoa



Supplementary Figure S1.

Comparison of manually and DCNN-predicted sperm motility in a four-category model. Correlation graphs (A-D) and difference plots (E-H) between sperm motility assessed manually by reference laboratories and motility values predicted for four categories by deep convolutional neural network (DCNN); (A) and (E) rapid progressive spermatozoa, (B) and (F) slow progressive spermatozoa, (C) and (G) non-progressive spermatozoa, (D) and (H) immotile spermatozoa. In the correlation graphs, solid lines represent the trendlines while dashed lines the 95% confidence interval. Pearson's correlation coefficient (r) and p -value (p) between results are also depicted. In the difference plots, the bias estimated as the median of the differences between predicted and manually assessed motility is shown as a solid line, and the 95% limits of agreement (LoA) are represented in the figure and shown in dashed lines to display outliers.