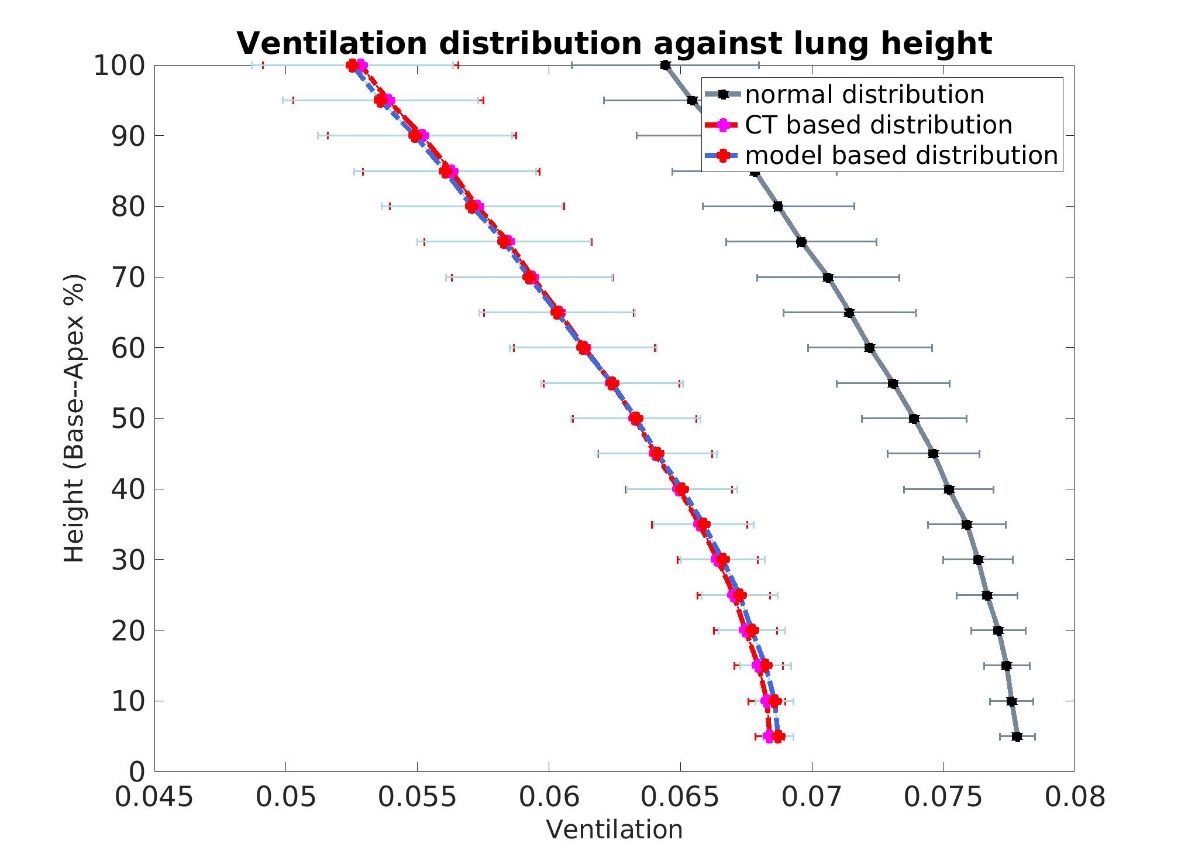
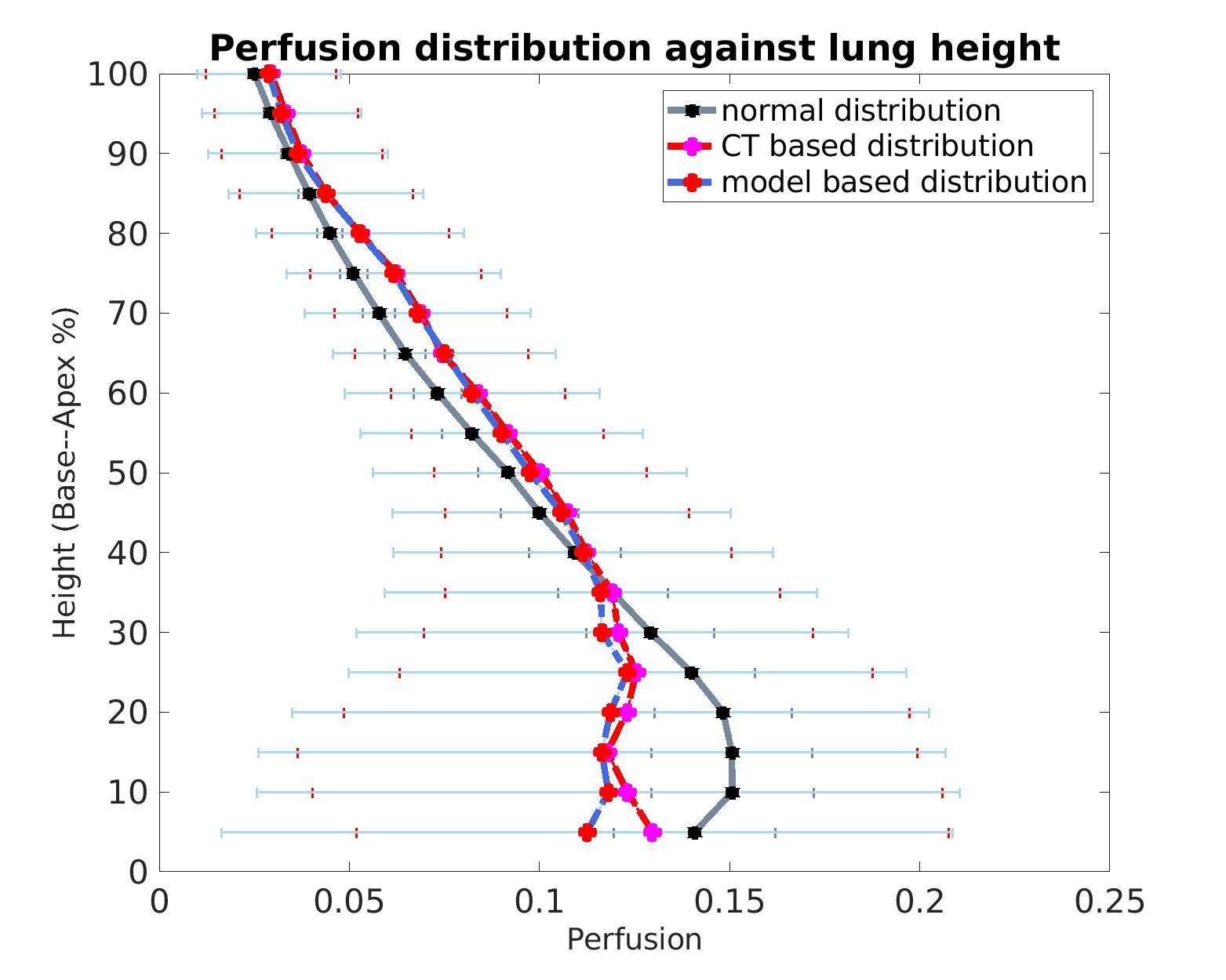
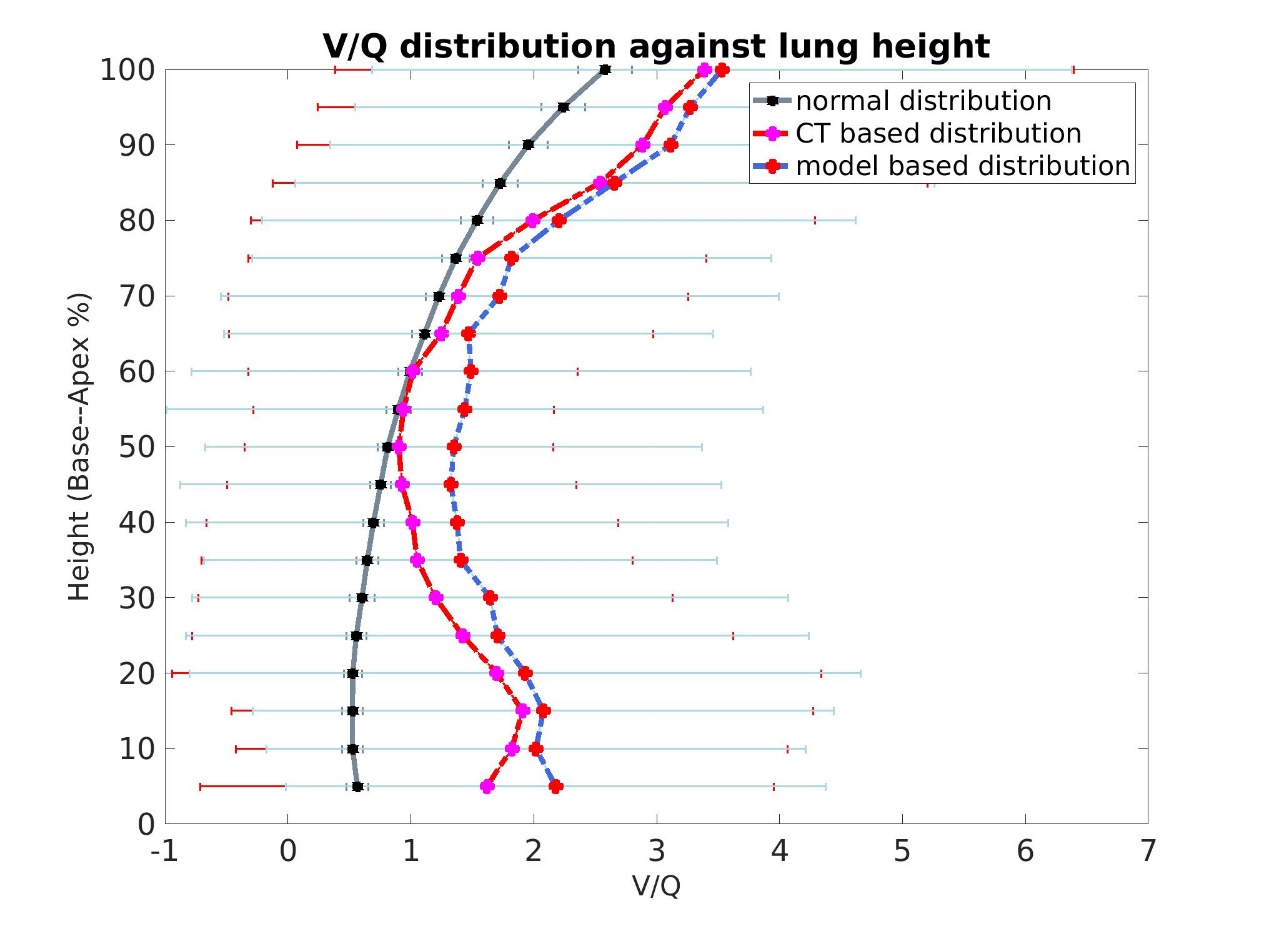
1. V, Q, VQ distribution against lung height



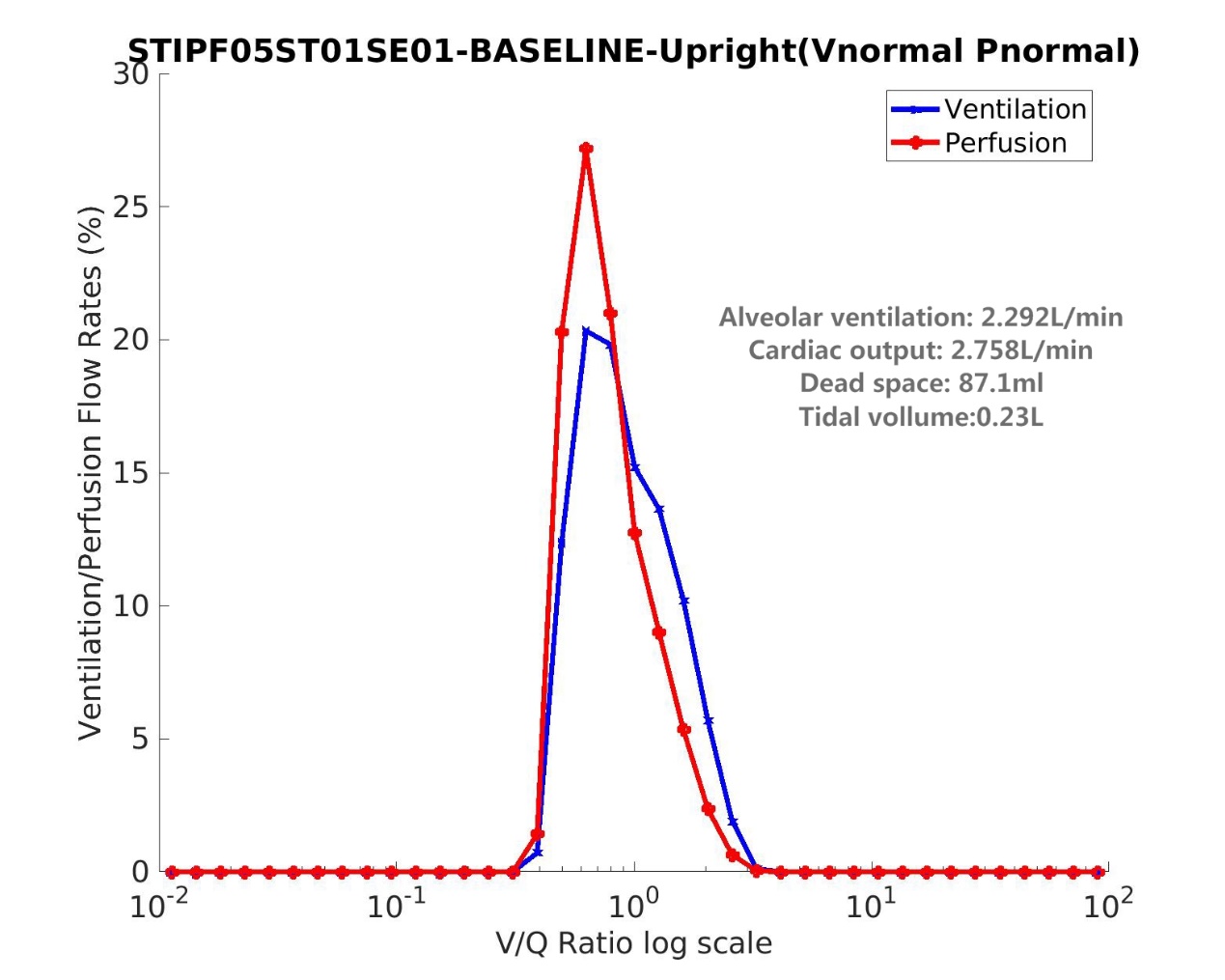




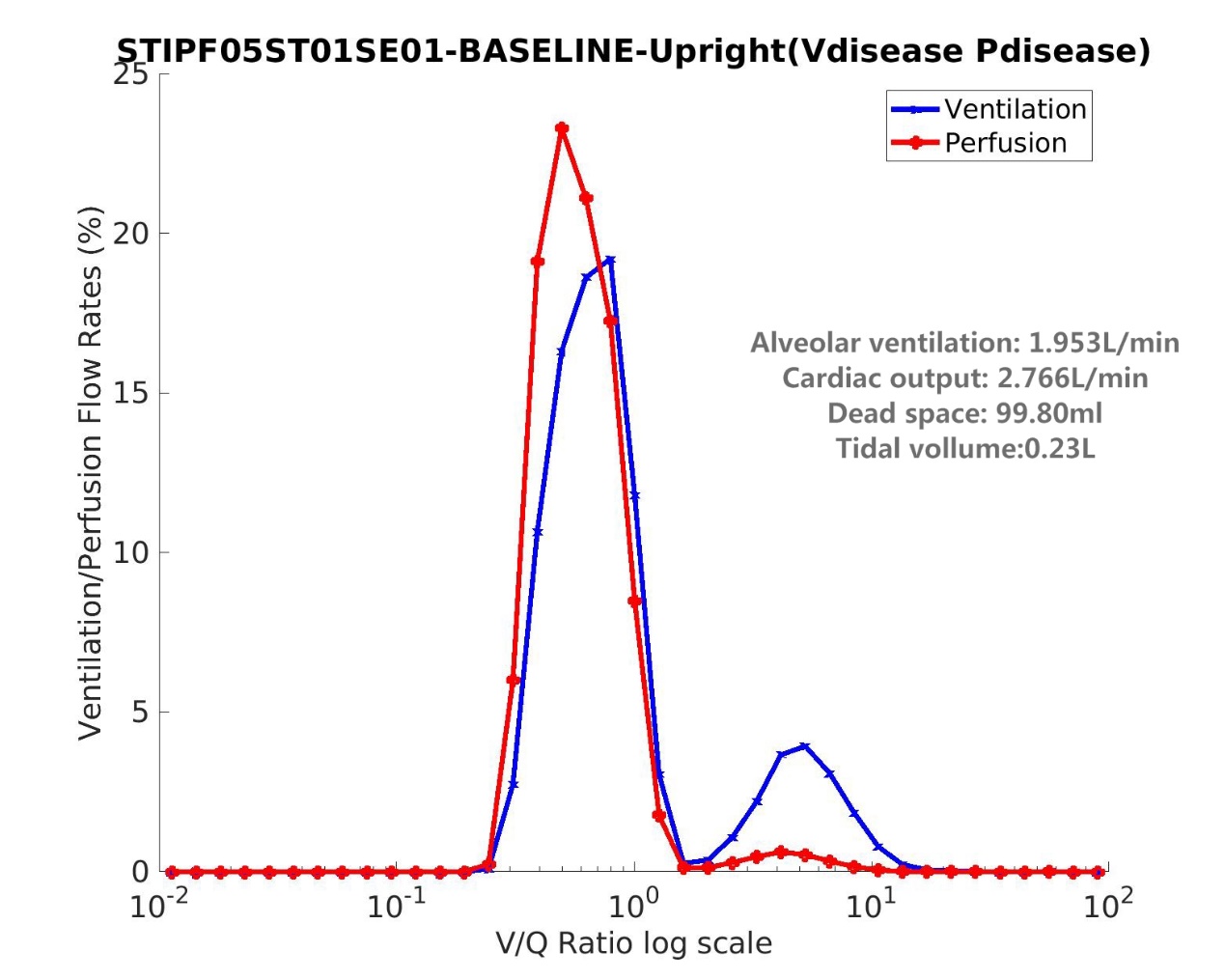
Perfusion of disease model decreases in the basal region (fibrosis mainly distributes in the basal region). The model based V/Q mismatching is more serious than CT based V/Q mismatching, which means CT imaging could not provide enough information, V/Q mismatch could happen in CT ‘normal’ regions.

1. MIGET plot

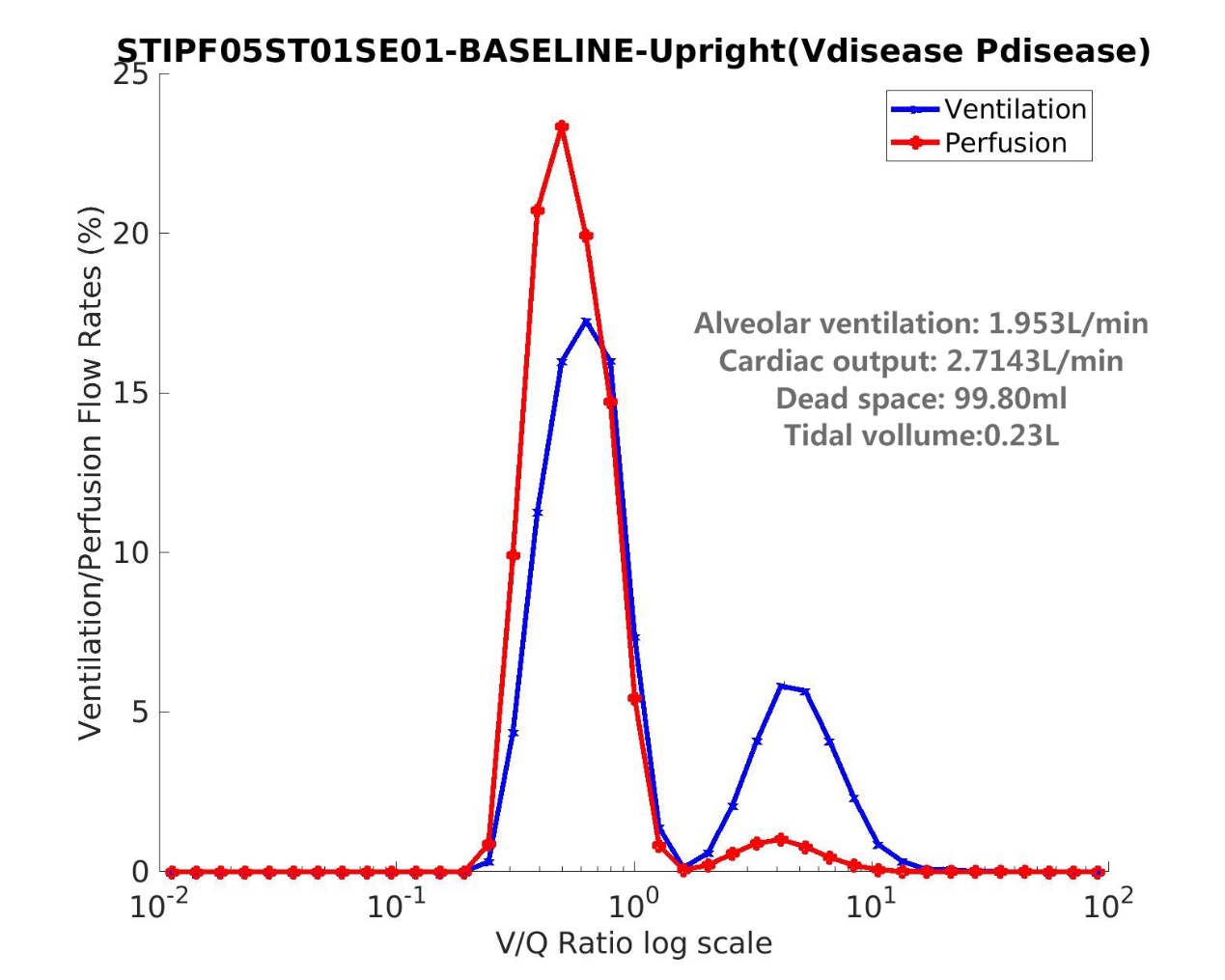
Normal



CT based

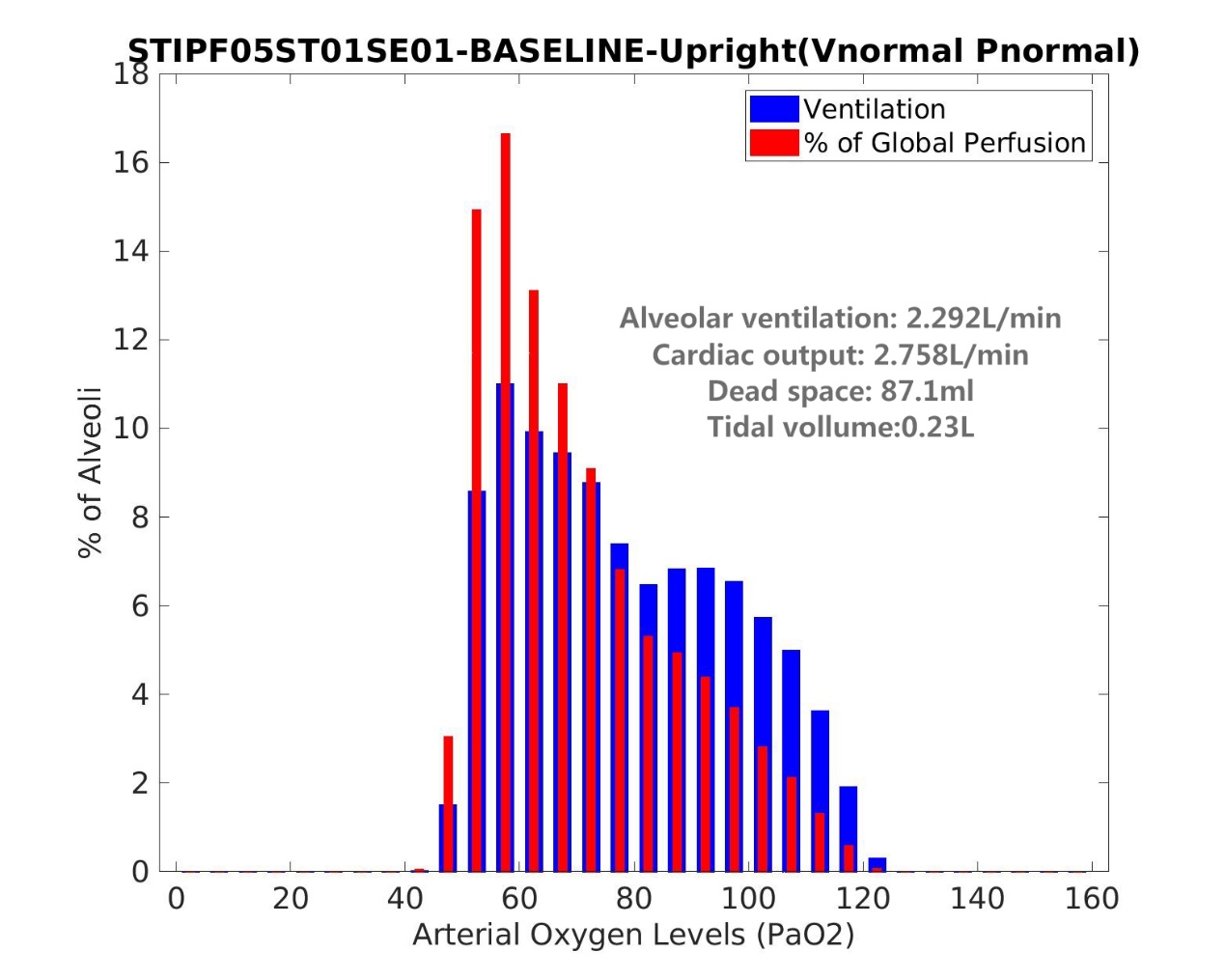


Model based



1. PaO2

Normal

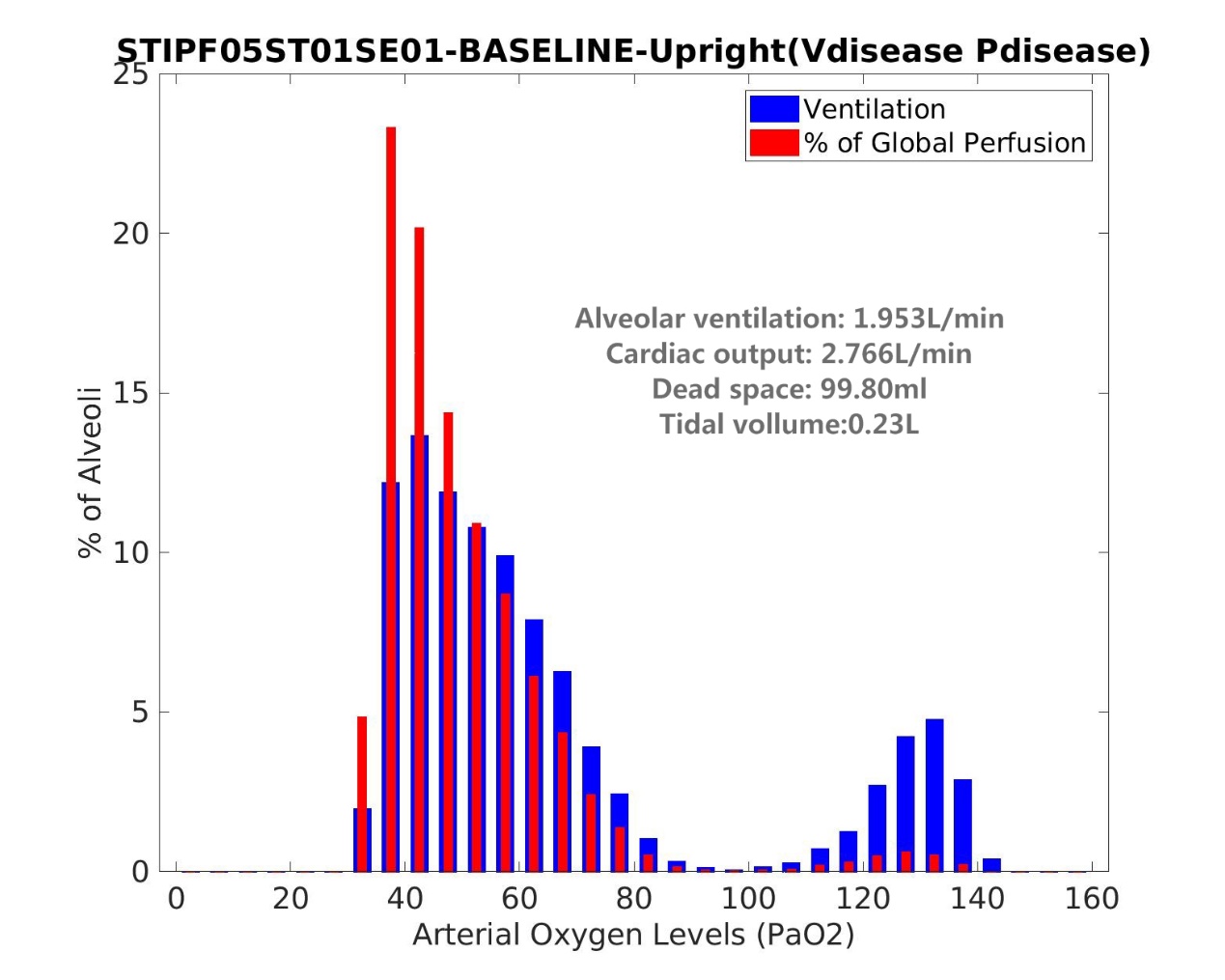


Normal: PaO2 is 66.9509907305109 mmHg PaCO2 is 59.23mmHg

The mean PaO2 for old people more than 60 years old (median = 71) is 74.3 mm Hg. This patint is female, 156cm, 59kg, 81 years old.

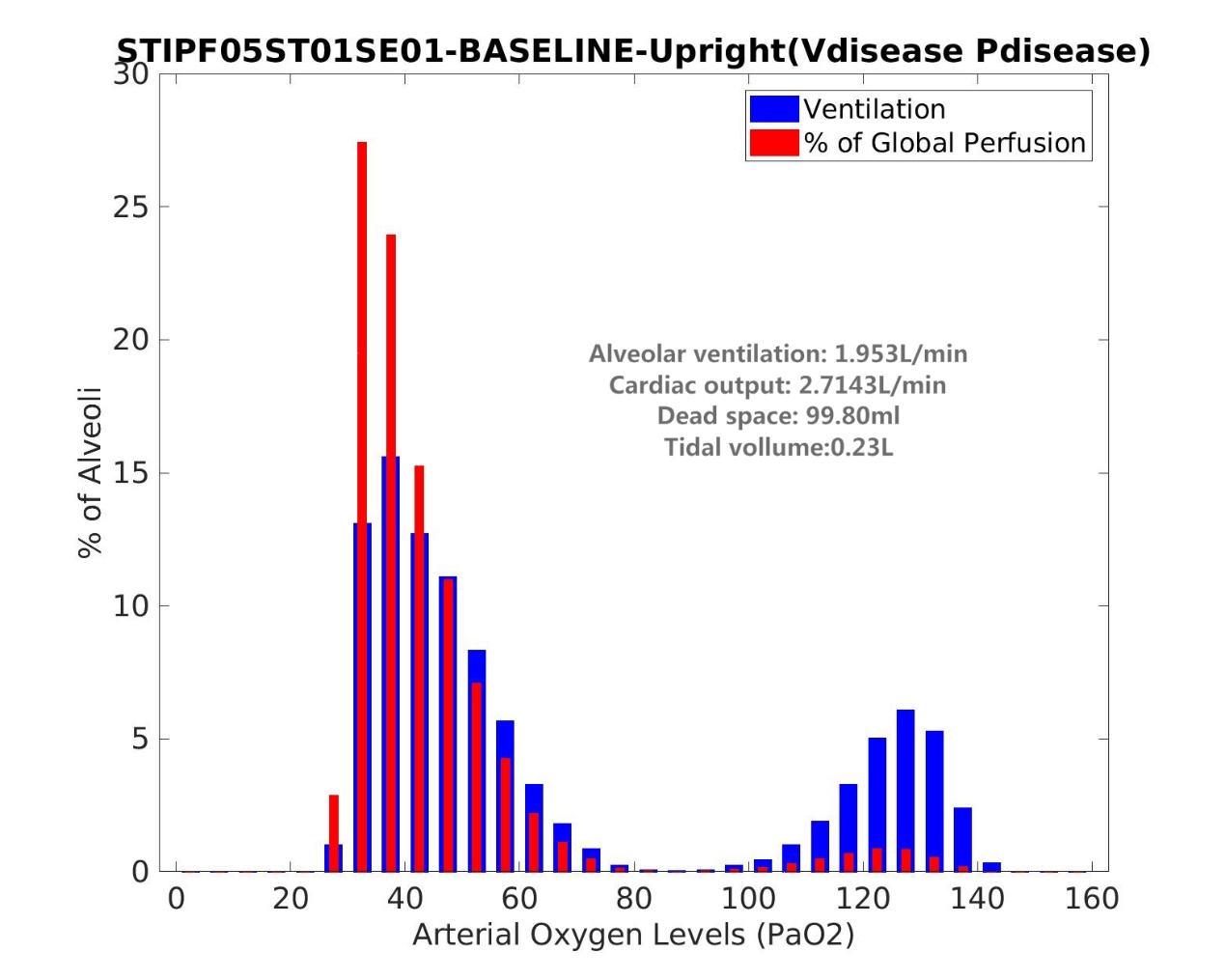
PaO2 = 109-0.43\*age, the standard deviation is +4.10 mmHg

CT based



CT based: PaO2 is 46.3024747656738 mmHg, PaCO2 is 74.073 mmHg

Model based



Model based PaO2 is 40.2576062548577 mmHg, PaCO2 is 76.998 mmHg

Normal PaO2 > CT based PaO2 > model based PaO2