

Online Supplementary Table 1 Comparison of the inter-observer agreement (Intra-class correlation*)

| CT parameters | ICC* | Confidence interval | |
|----------------------------|------|---------------------|------|
| EXP1 _{MLD} | 1 | . | . |
| EXP1 ₋₈₅₀₋₉₁₀ | 1 | . | . |
| EXP1 ₋₈₅₀₋₁₀₂₄ | 1 | . | . |
| EXP2 _{MLD} | 0.95 | 0.92 | 0.97 |
| EXP2 ₋₈₅₀₋₉₁₀ | 0.99 | 0.98 | 0.99 |
| EXP2 ₋₈₅₀₋₁₀₂₄ | 0.99 | 0.98 | 0.99 |
| EXP3 _{MLD} | 1 | . | . |
| EXP3 ₋₈₅₀₋₉₁₀ | 1 | . | . |
| EXP3 ₋₈₅₀₋₁₀₂₄ | 1 | . | . |
| EXP4 _{MLD} | 1 | . | . |
| EXP4 ₋₈₅₀₋₉₁₀ | 0.91 | 0.89 | 0.92 |
| EXP4 ₋₈₅₀₋₁₀₂₄ | 0.96 | 0.95 | 0.98 |
| INSP1 _{MLD} | 0.90 | 0.88 | 0.95 |
| INSP1 ₋₈₅₀₋₉₁₀ | 0.97 | 0.94 | 0.99 |
| INSP1 ₋₈₅₀₋₁₀₂₄ | 0.92 | 0.88 | 0.95 |
| INSP2 _{MLD} | 0.97 | 0.96 | 0.99 |
| INSP2 ₋₈₅₀₋₉₁₀ | 0.95 | 0.93 | 0.97 |
| INSP2 ₋₈₅₀₋₁₀₂₄ | 1 | . | . |
| INSP3 _{MLD} | 0.99 | 0.98 | 0.99 |
| INSP3 ₋₈₅₀₋₉₁₀ | 0.99 | 0.98 | 0.99 |
| INSP3 ₋₈₅₀₋₁₀₂₄ | 0.99 | 0.98 | 0.99 |
| INSP4 _{MLD} | 0.99 | 0.98 | 0.99 |
| INSP4 ₋₈₅₀₋₉₁₀ | 0.98 | 0.98 | 0.99 |
| INSP4 ₋₈₅₀₋₁₀₂₄ | 0.99 | 0.98 | 0.99 |

ICC was calculated on the raw variables measured by the 2 observers.

Exp₋₈₅₀₋₉₁₀: Lung voxels having attenuation between -850 and -910 HU on expiratory slices at each level. Exp₋₈₅₀₋₁₀₂₄: Lung voxels having attenuation between -850 and -1024 HU on expiratory slices at each level. INSP₋₈₅₀₋₉₁₀: Lung voxels having attenuation between -850 and -910 HU on inspiratory images. INSP₋₈₅₀₋₁₀₂₄: Lung voxels having attenuation between -850 and -1024 on inspiration set matched images. MLD = Mean lung density.