Supplementary Material

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Table 1. We conduct a preliminary exploration of the number of Mamba layers in our LM-UNet using our in-house dataset. The best results are highlighted in **bold**. We find that a very high number of layers may cause performance degradation, which may be related to the training strategy.

Mamba layers	DSC ↑		HD95 (mm) ↓	
	CT	PET	CT	PET
In-house Dataset				
6	0.6815±0.1186	0.8273±0.0652	52.9±29.6	**18.6±7.8**
12	**0.6998±0.1111**	**0.8492±0.0499**	**50.9±23.2**	20.3±7.2
18	0.6801±0.1259	0.8348±0.0658	58.6±25.1	21.9±8.8
24	0.6431±0.1490	0.8126±0.0678	55.7±24.8	23.5±7.2