Comparison between Convolutional Neural Network Architectures

Table S3. Comparison of performance between different convolutional neural network architectures on the binary task of classifying CACS > 100 from no CAC. VGG-16, ResNet-50, and Inception-v3 were trained with their own ImageNet-pretrained weights, which are all available in Keras deep learning library. Fully connected layers were converted to have a 1-dimensional output to adjust to the binary classification problem. AUROC was measured under a 5-fold setting and empirical mean and empirical standard deviation are reported. No significant difference existed between architectures.

Architecture	AUROC - mean (std)	# parameters
VGG-16	82.0 % (2.4 %)	14,715,201
ResNet-50	82.0 % (2.5 %)	23,589,761
Inception-v3	82.3 % (2.7 %)	21,804,833