Appendix 1 Detailed coding for intraclass correlation coefficients

```
> install.packages("psych")
library(psych)
setwd("~/Desktop/Fanomics")
> getwd()
> df_icc1 <- read.csv("icc1.csv")
> df_icc2 <- read.csv("icc2.csv")
>  n <- dim(df_icc1)[1]
> p <- dim(df_icc1)[2]
> df_intra <- rbind(df_icc1,df_icc2)
icc_all_intra <- apply(df_intra, 2, function(x) ICC(x = data.frame(x[1:n], x[(n+1):(2*n)]),lmer = F)$results[1,2])
df_icc_all_intra <- data.frame(feature = names(df_intra),icc = icc_all_intra, row.names = 1:ncol(df_intra))
write.csv(df_icc_all_intra,"df_icc_all_intra.csv")
```

Appendix 2 All features with intraclass correlation coefficients greater than 0.90 on CMP and NP

CMP		NP	
Feature	ICC	Feature	ICC
image_original_shape_SurfaceVolumeRatio	0.999703	image_original_ngtdm_Strength	0.997886
image_original_ngtdm_Coarseness	0.999602	image_original_shape_SurfaceVolumeRatio	0.997055
image_original_gldm_SmallDependenceEmphasis	0.999219	image_original_glszm_ZoneVariance	0.994225
image_original_firstorder_RobustMeanAbsoluteDeviation	0.998798	image_original_glszm_LargeAreaEmphasis	0.994144
image_original_glszm_ZonePercentage	0.998405	image_original_glszm_SizeZoneNonUniformityNormalized	0.993853
image_original_firstorder_MeanAbsoluteDeviation	0.998284	image_original_glrlm_LongRunLowGrayLevelEmphasis	0.990296
image_original_glcm_Contrast	0.99777	image_original_glcm_ClusterShade	0.988236
image_original_glcm_Imc1	0.997564	image_original_gldm_DependenceNonUniformityNormalized	0.987703
image_original_firstorder_90Percentile	0.997399	image_original_glrlm_RunVariance	0.987175
image_original_glcm_DifferenceEntropy	0.997288	image_original_glrlm_LongRunEmphasis	0.98707
image_original_glcm_SumSquares	0.997225	image_original_gldm_LargeDependenceEmphasis	0.985449
image_original_glcm_ClusterTendency	0.997185	image_original_glcm_DifferenceEntropy	0.983747
image_original_glrlm_GrayLevelNonUniformityNormalized	0.997132	image_original_glrlm_RunPercentage	0.983314
image_original_glcm_DifferenceAverage	0.996764	image_original_glcm_DifferenceVariance	0.982974
image_original_gldm_DependenceNonUniformity	0.996724	image_original_gldm_GrayLevelNonUniformity	0.981646
image_original_firstorder_Energy	0.996709	image_original_glcm_InverseVariance	0.981574
image_original_gldm_GrayLevelVariance	0.996695	image_original_glcm_Id	0.980907
image_original_glrlm_RunLengthNonUniformityNormalized	0.996597	image_original_glcm_Idm	0.980738
image_original_glcm_DifferenceVariance	0.996488	image_original_glszm_LargeAreaLowGrayLevelEmphasis	0.980694
image_original_glcm_Idm	0.996361	image_original_glcm_DifferenceAverage	0.980483
image_original_firstorder_RootMeanSquared	0.996295	image_original_glrlm_RunLengthNonUniformityNormalized	0.98037
image_original_glcm_Id	0.996225	image_original_ngtdm_Coarseness	0.980166
image_original_firstorder_Variance	0.99615	image_original_glcm_Contrast	0.97914
image_original_firstorder_Entropy	0.996053	image_original_glszm_SmallAreaEmphasis	0.97773
image_original_firstorder_Uniformity	0.995976	image_original_ngtdm_Busyness	0.974418
image_original_glrlm_RunPercentage	0.99597	image_original_gldm_DependenceNonUniformity	0.966119
image_original_firstorder_Median	0.995948	image_original_shape_MinorAxisLength	0.965445
image_original_glcm_JointEntropy	0.995881	image_original_glszm_LargeAreaHighGrayLevelEmphasis	0.964691
image_original_glrlm_LongRunEmphasis	0.995749	image_original_glrlm_LongRunHighGrayLevelEmphasis	0.961037
image_original_glcm_InverseVariance	0.995528	image_original_gldm_DependenceVariance	0.958119
image_original_gldm_GrayLevelNonUniformity	0.995504	image_original_gldm_SmallDependenceEmphasis	0.957753
image_original_gldm_LargeDependenceEmphasis	0.995439	image_original_glszm_GrayLevelNonUniformity	0.955541
image_original_glcm_Correlation	0.99543	image_original_firstorder_Minimum	0.939263
image_original_shape_Maximum2DDiameterColumn	0.995421	image_original_ngtdm_Complexity	0.938753
image_original_glcm_SumEntropy	0.995352	image_original_glrlm_GrayLevelNonUniformity	0.935427
image_original_glrlm_ShortRunEmphasis	0.994974	image_original_shape_Sphericity	0.935179
image_original_glcm_MCC	0.994897	image_original_glcm_MaximumProbability	0.934252
image_original_firstorder_Mean	0.99483	image_original_glszm_LowGrayLevelZoneEmphasis	0.933156
image_original_glcm_JointEnergy	0.994762	image_original_glcm_ClusterProminence	0.933095
image_original_firstorder_TotalEnergy	0.99472	image_original_glrlm_ShortRunEmphasis	0.932651
image_original_glrlm_LongRunLowGrayLevelEmphasis	0.994709	image_original_glcm_Idn	0.927744
image_original_firstorder_InterquartileRange	0.994634	image_original_shape_SurfaceArea	0.923885
image_original_glrlm_RunVariance	0.994585	image_original_firstorder_10Percentile	0.923572
image_original_glcm_Imc2	0.994256	image_original_shape_VoxelVolume	0.921104
image_original_glrlm_RunEntropy	0.994007	image_original_shape_MeshVolume	0.921026
image_original_gldm_DependenceEntropy	0.993948	image_original_shape_Maximum2DDiameterRow	0.916918
image_original_gldm_DependenceVariance	0.993479	image_original_glszm_ZonePercentage	0.913083
image_original_glrlm_GrayLevelNonUniformity	0.993425	image_original_glrlm_ShortRunLowGrayLevelEmphasis	0.901776
image_original_gldm_DependenceNonUniformityNormalized	0.993417		
image_original_shape_Sphericity	0.993237		
image_original_shape_VoxelVolume	0.990466		
image_original_shape_MeshVolume	0.990441		
image_original_shape_MajorAxisLength	0.990134		
image_original_glrlm_RunLengthNonUniformity	0.990073		
image_original_shape_SurfaceArea	0.990066		
image_original_firstorder_10Percentile	0.989598		
image_original_shape_Maximum2DDiameterSlice	0.989024		
image_original_shape_Maximum3DDiameter	0.989024		
image_original_glcm_MaximumProbability	0.989006		
image_original_glrlm_LongRunHighGrayLevelEmphasis	0.988914		
image_original_glszm_GrayLevelNonUniformityNormalized	0.987143		
image_original_shape_MinorAxisLength	0.987114		
image_original_shape_Maximum2DDiameterRow	0.986042		
image_original_glszm_SizeZoneNonUniformityNormalized	0.982644		
image_original_glszm_SizeZoneNonUniformity	0.982329		
image_original_glszm_GrayLevelNonUniformity	0.981122		
image_original_glszm_LargeAreaLowGrayLevelEmphasis	0.977235		
image_original_glszm_ZoneEntropy	0.970264		
image_original_glrlm_GrayLevelVariance	0.965288		
image_original_glszm_SmallAreaEmphasis	0.96069		
image_original_glszm_LargeAreaEmphasis	0.950659		
image_original_glszm_ZoneVariance	0.94956		
image_original_firstorder_Skewness	0.946556		
image_original_glszm_LargeAreaHighGrayLevelEmphasis	0.941172		
image_original_glszm_SmallAreaLowGrayLevelEmphasis	0.925727		
image_original_ngtdm_Busyness	0.916888		
image_original_gldm_LargeDependenceLowGrayLevelEmphasis	0.910933		
image_original_firstorder_Minimum	0.908471		
image_original_glcm_ClusterShade	0.901755		