(1) Fine-grained feature representation for cancer subtypes or pathological tissues

Whole slide image

Image patches

Annotation

Pathologist

$Subtype_1$

$Subtype_2$

$Subtype_n$

DNN

Classification

$Prediction_1$

$Prediction_2$

$Prediction_n$
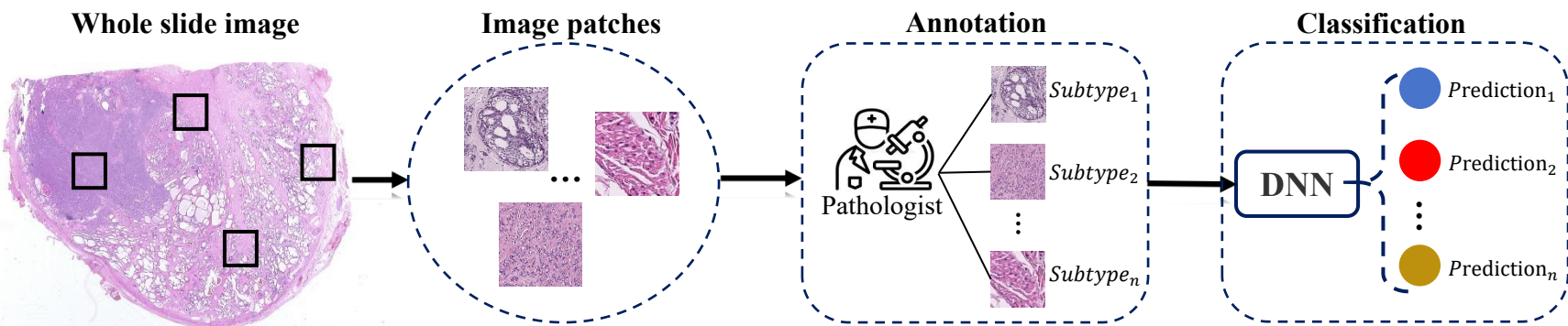
(2) Low inter-class and large intra-class variation in the shape and chromatin texture

Similar

Dissimilar

Dissimilar

Adenosis

Fibroadenoma

Tubular adenoma
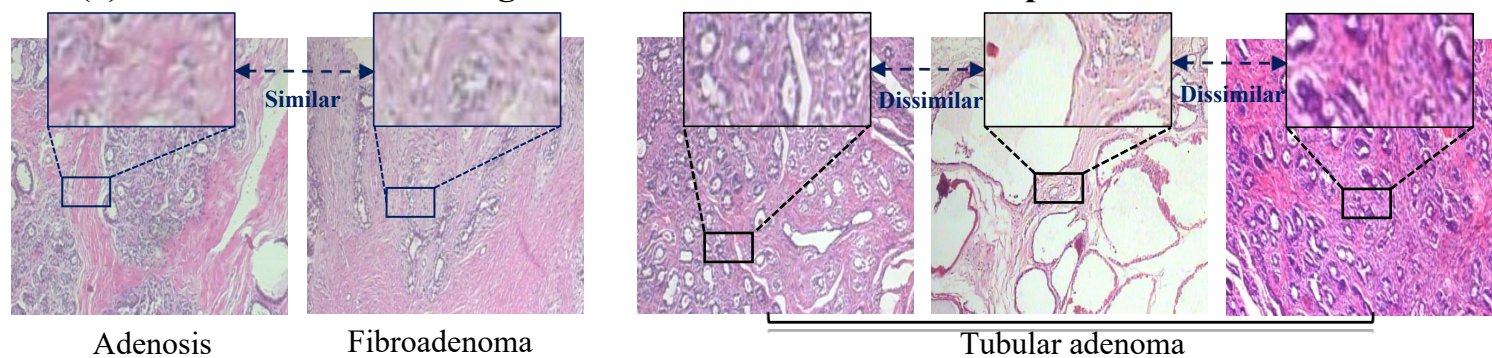
(3) Heterogeneous histopathological feature distribution

Usual ductal hyperplasia

Flat epithelial atypia

Sample image 1

Significance score of each patch
The mean significance scores of all patches

Significance score

Index of histopathological patches

Sample image 2

Significance score of each patch
The mean significance scores of all patches

Significance score

Index of histopathological patches