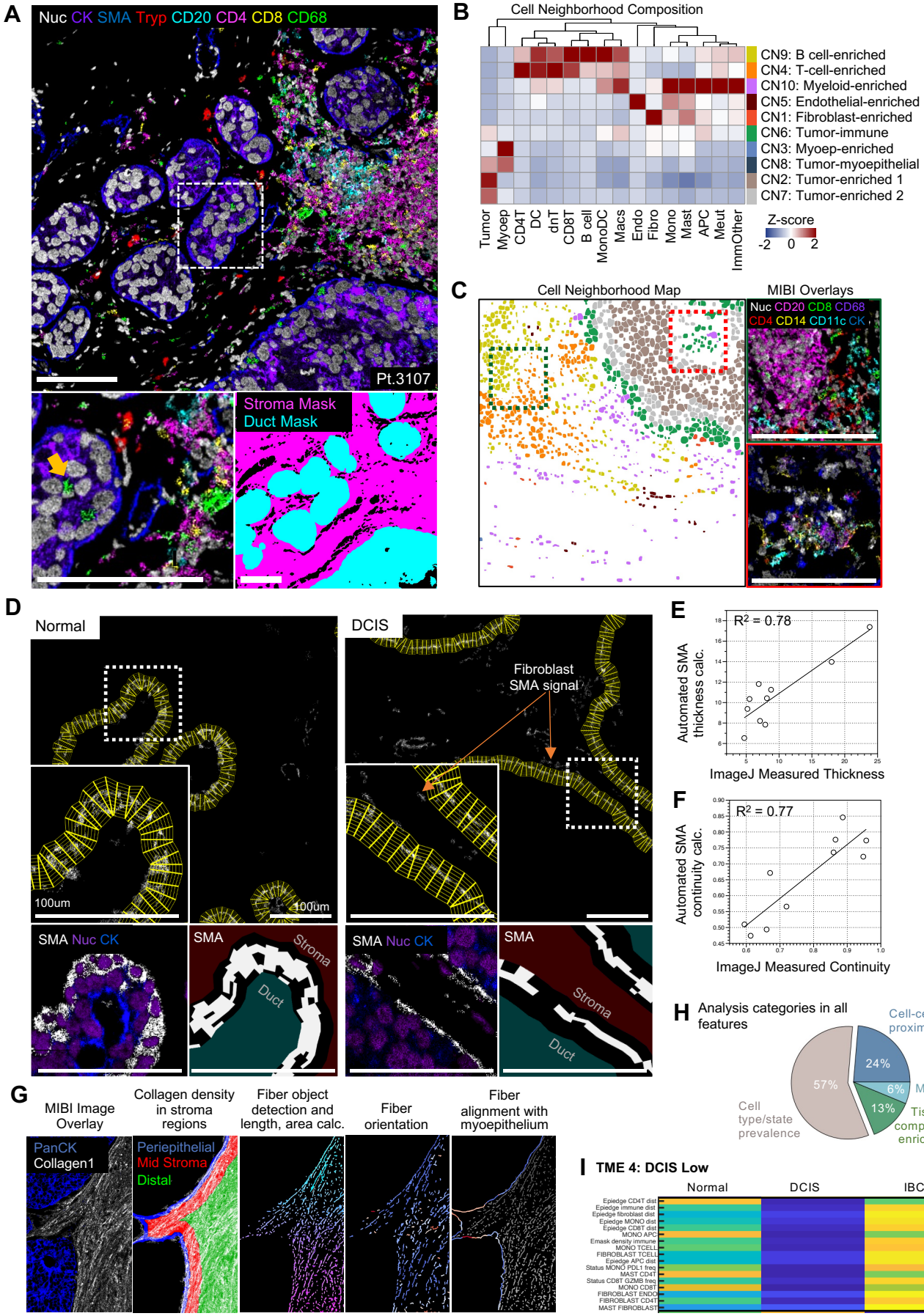
A
Nuc CK SMA Tryp CD20 CD4 CD8 CD68
Pt.3107
Stroma Mask
Duct Mask
B
Cell Neighborhood Composition
CN9: B cell-enriched
CN4: T-cell-enriched
CN10: Myeloid-enriched
CN5: Endothelial-enriched
CN1: Fibroblast-enriched
CN6: Tumor-immune
CN3: Myoep-enriched
CN8: Tumor-myoepithelial
CN2: Tumor-enriched 1
CN7: Tumor-enriched 2
Tumor
Myoep
CD4T
DC
dnT
CD8T
B cell
MonoDC
Macs
Endo
Fibro
Mono
Mast
APC
Meut
ImmOther
Z-score
-2 0 2
C
Cell Neighborhood Map
MIBI Overlays
Nuc CD20 CD8 CD68
CD4 CD14 CD11c CK
D
Normal
DCIS
Fibroblast
SMA signal
100um
100um
SMA Nuc CK
SMA
Stroma
Duct
SMA Nuc CK
SMA
Stroma
Duct
E
R2 = 0.78
Automated SMA thickness calc.
ImageJ Measured Thickness
F
R2 = 0.77
Automated SMA continuity calc.
ImageJ Measured Continuity
H
Analysis categories in all features
Cell-cell proximity
24%
6%
Morpho.
13%
Tissue compartment enrichment
57%
Cell type/state prevalence
G
MIBI Image Overlay
Collagen density in stroma regions
Fiber object detection and length, area calc.
Fiber orientation
Fiber alignment with myoepithelium
PanCK
Collagen1
Periepithelial
Mid Stroma
Distal
I
TME 4: DCIS Low
Normal
DCIS
IBC
Epiedge CD4T dist
Epiedge immune dist
Epiedge fibroblast dist
Epiedge MONO dist
Epiedge CD8T dist
MONO APC
Emask density immune
MONO TCELL
FIBROBLAST TCELL
Epiedge APC dist
Status MONO PDL1 freq
MAST CD4T
Status CD8T GZMB freq
MONO CD8T
FIBROBLAST ENDO
FIBROBLAST CD4T
MAST FIBROBLAST