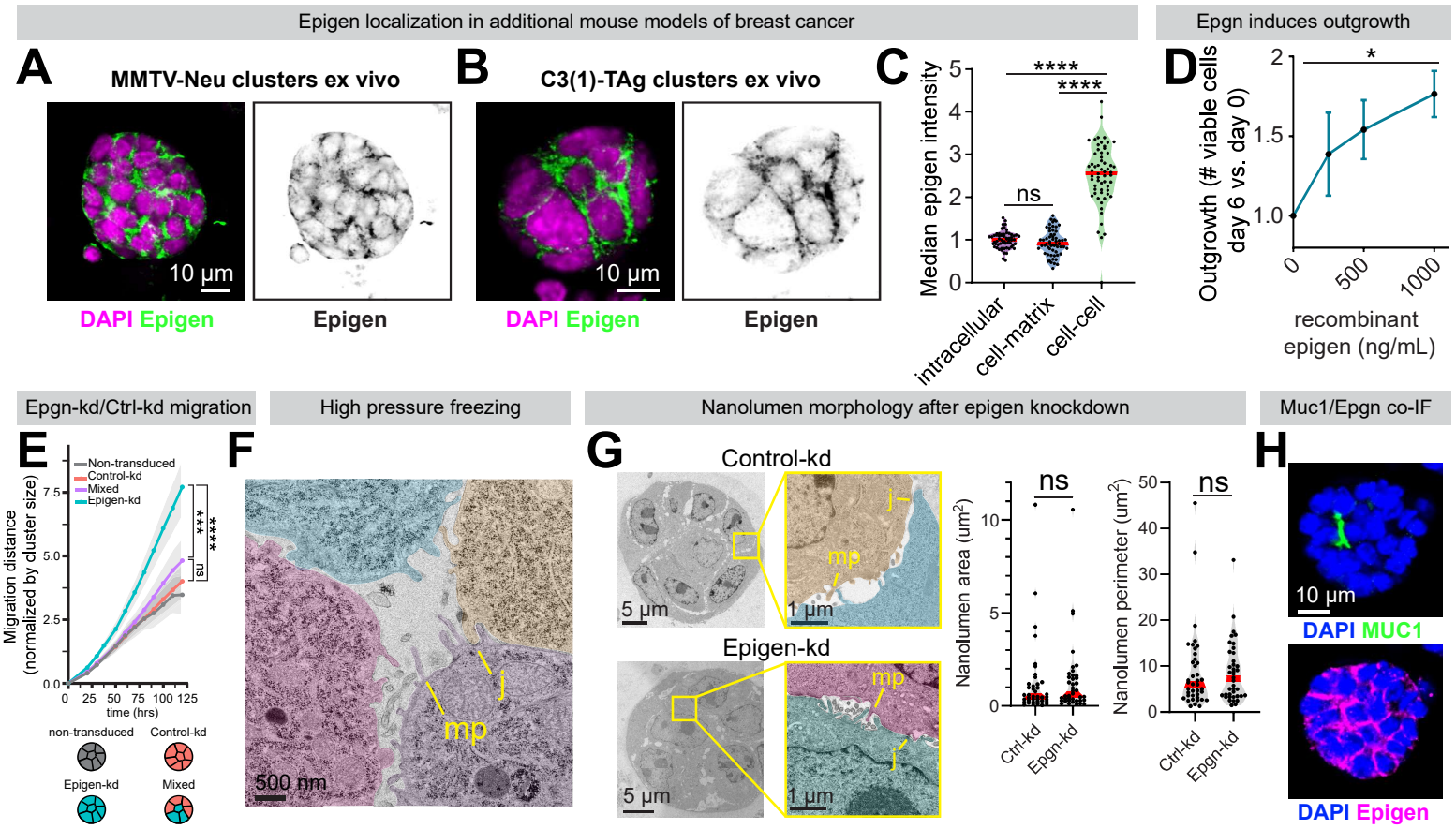
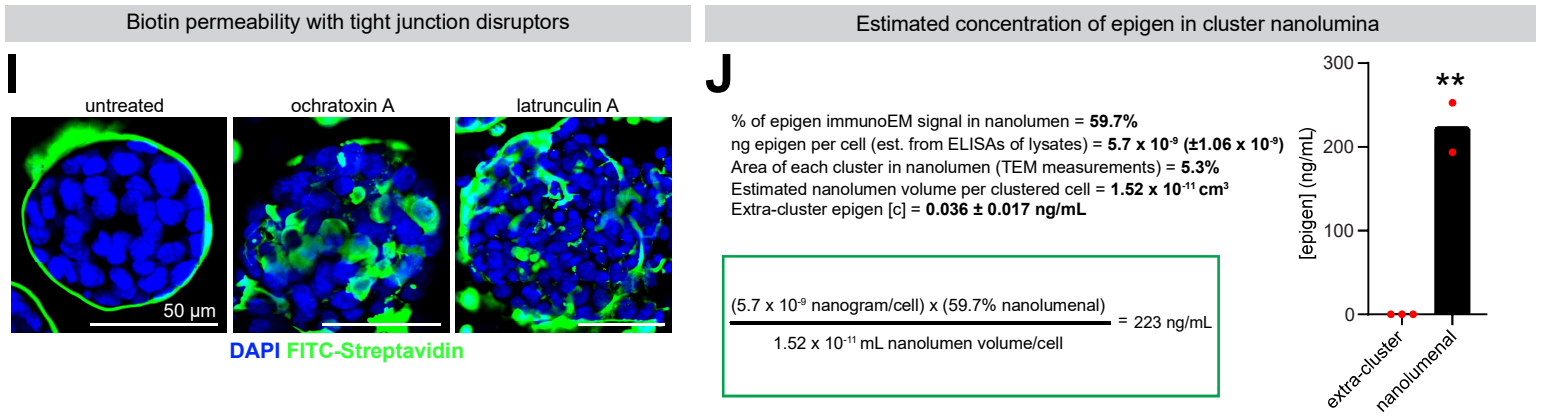

Epigen localization in additional mouse models of breast cancer
Epgn induces outgrowth
A
MMTV-Neu clusters ex vivo
10 µm
DAPI Epigen
Epigen
B
C3(1)-TAg clusters ex vivo
10 µm
DAPI Epigen
Epigen
C
Median epigen intensity
****
****
ns
intracellular
cell-matrix
cell-cell
D
Outgrowth (# viable cells day 6 vs. day 0)
*
recombinant epigen (ng/mL)
Epgn-kd/Ctrl-kd migration
High pressure freezing
Nanolumen morphology after epigen knockdown
Muc1/Epgn co-IF
E
Non-transduced
Control-kd
Mixed
Epigen-kd
Migration distance (normalized by cluster size)
time (hrs)
***
****
ns
non-transduced
Control-kd
Epigen-kd
Mixed
F
mp
j
500 nm
G
Control-kd
5 µm
1 µm
mp
j
Epigen-kd
Nanolumen area (um²)
Nanolumen perimeter (um²)
ns
Ctrl-kd
Epgn-kd
H
10 µm
DAPI MUC1
DAPI Epigen


Biotin permeability with tight junction disruptors
Estimated concentration of epigen in cluster nanolumina
I
untreated
ochratoxin A
latrunculin A
50 µm
DAPI FITC-Streptavidin
J
% of epigen immunoEM signal in nanolumen = 59.7%
ng epigen per cell (est. from ELISAs of lysates) = 5.7 x 10⁻⁹ (±1.06 x 10⁻⁹)
Area of each cluster in nanolumen (TEM measurements) = 5.3%
Estimated nanolumen volume per clustered cell = 1.52 x 10⁻¹¹ cm³
Extra-cluster epigen [c] = 0.036 ± 0.017 ng/mL
(5.7 x 10⁻⁹ nanogram/cell) x (59.7% nanolumenal) / 1.52 x 10⁻¹¹ mL nanolumen volume/cell = 223 ng/mL
[epigen] (ng/mL)
**
extra-cluster
nanolumenal