

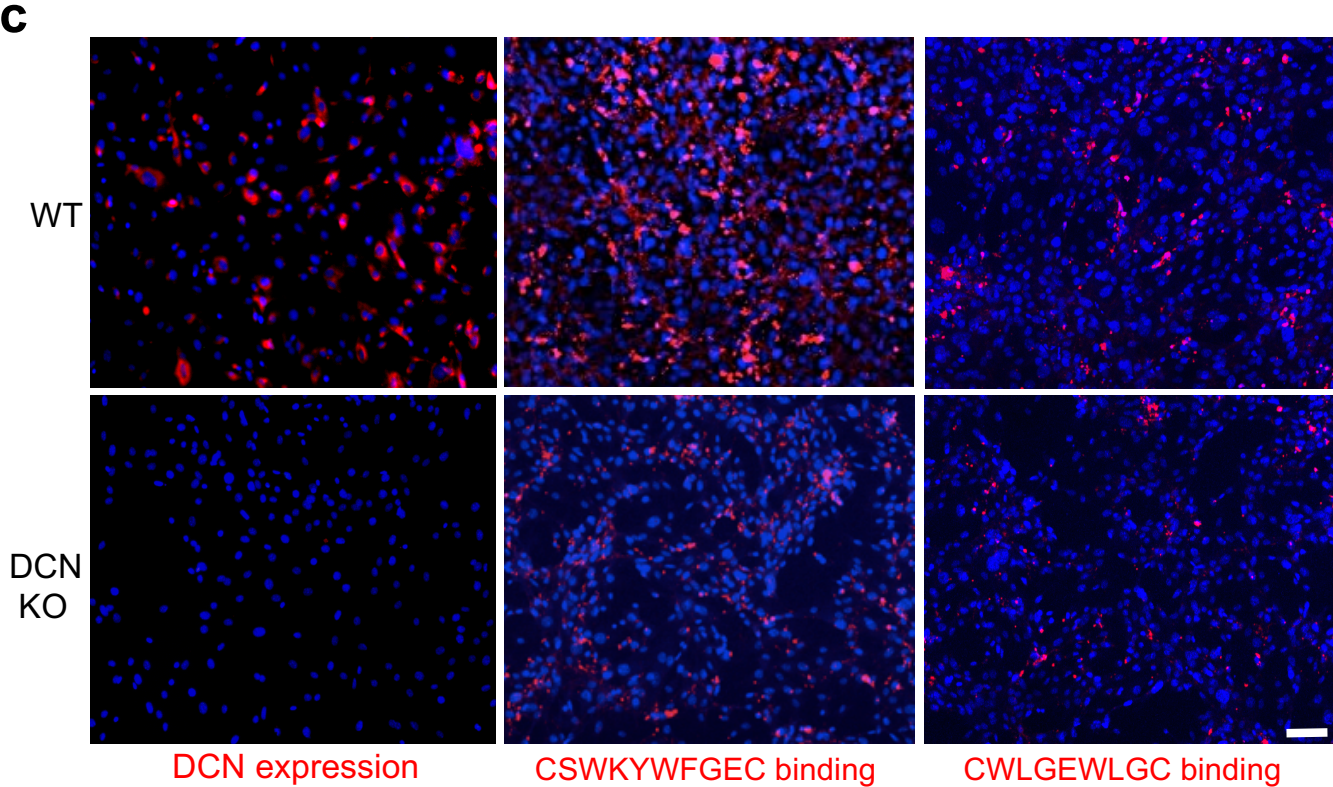
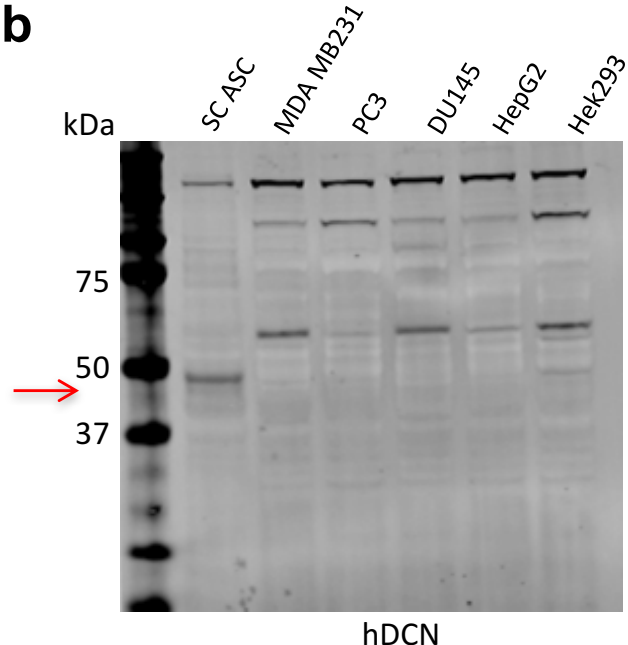
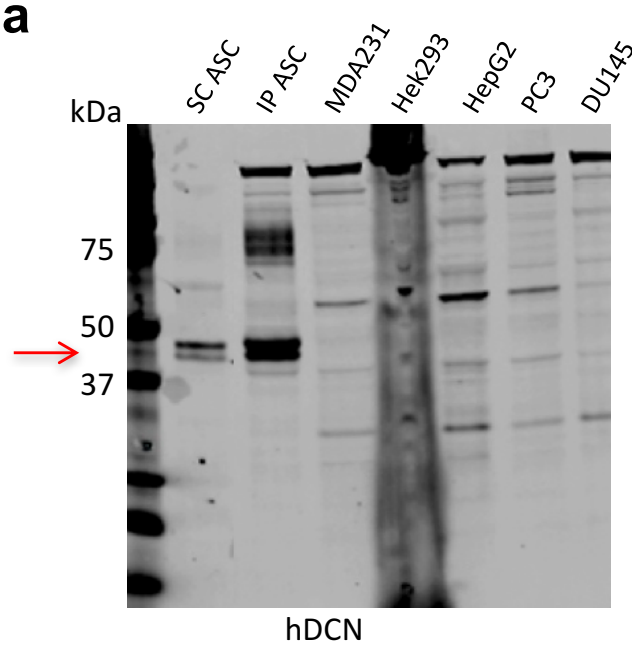
**OMTO, Volume 6**

## **Supplemental Information**

### **Non-glycanated Decorin Is a Drug Target on Human Adipose Stromal Cells**

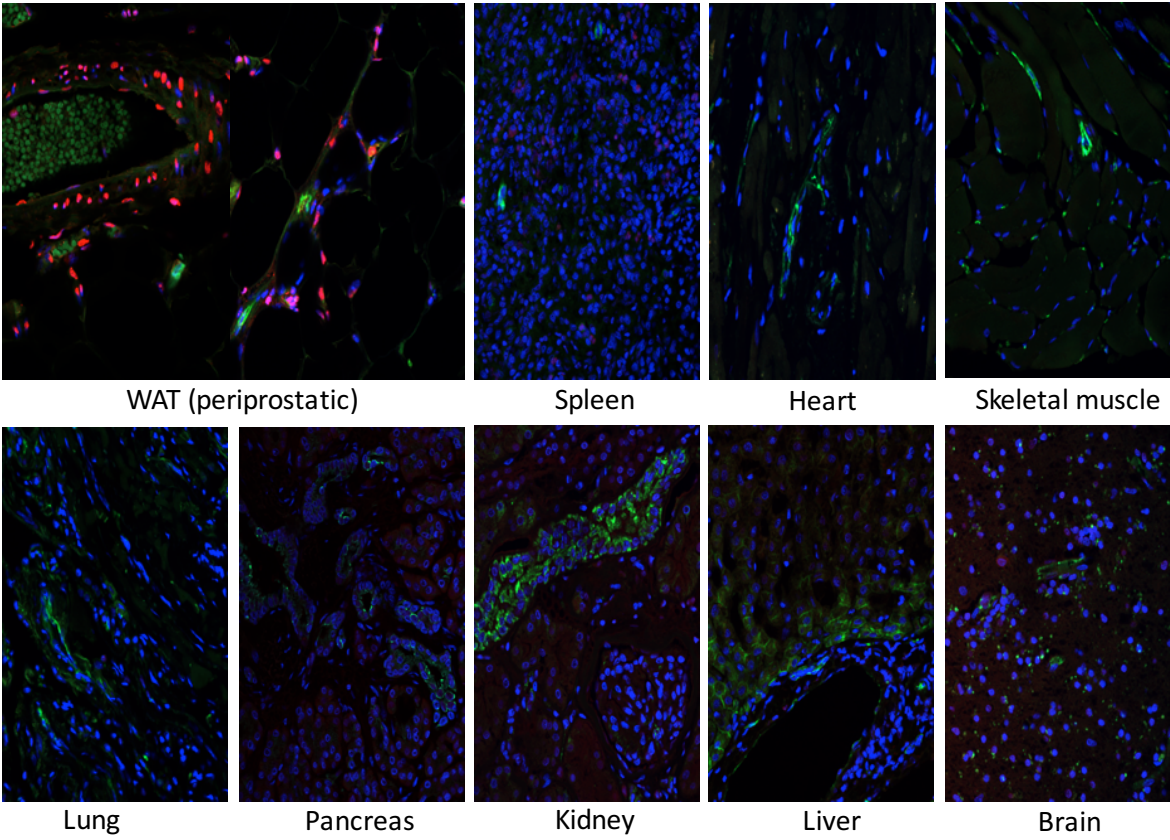
**Alexes C. Daquinag, Ali Dadbin, Brad Snyder, Xiaoping Wang, Aysegul A. Sahin, Naoto T. Ueno, and Mikhail G. Kolonin**

# Supplemental Figure 1

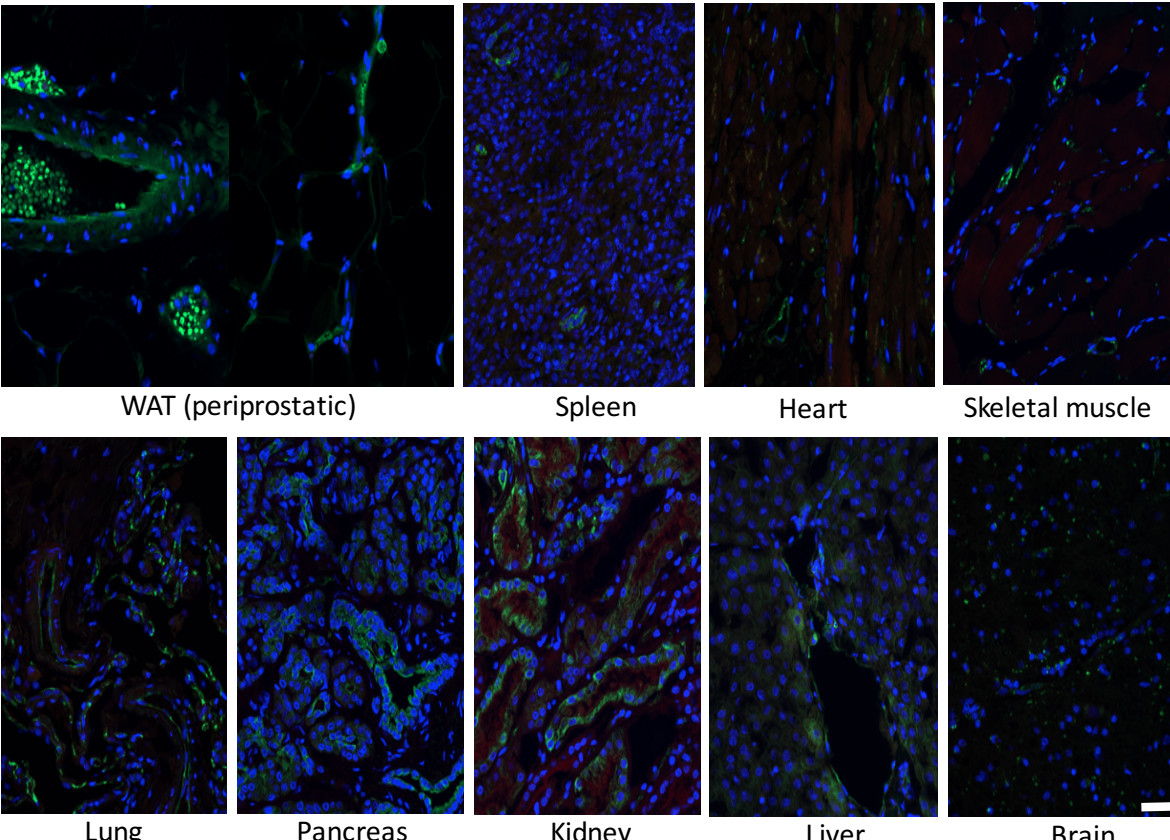


# Supplemental Figure 2

**a** CSWKYWFGECD31 DNA

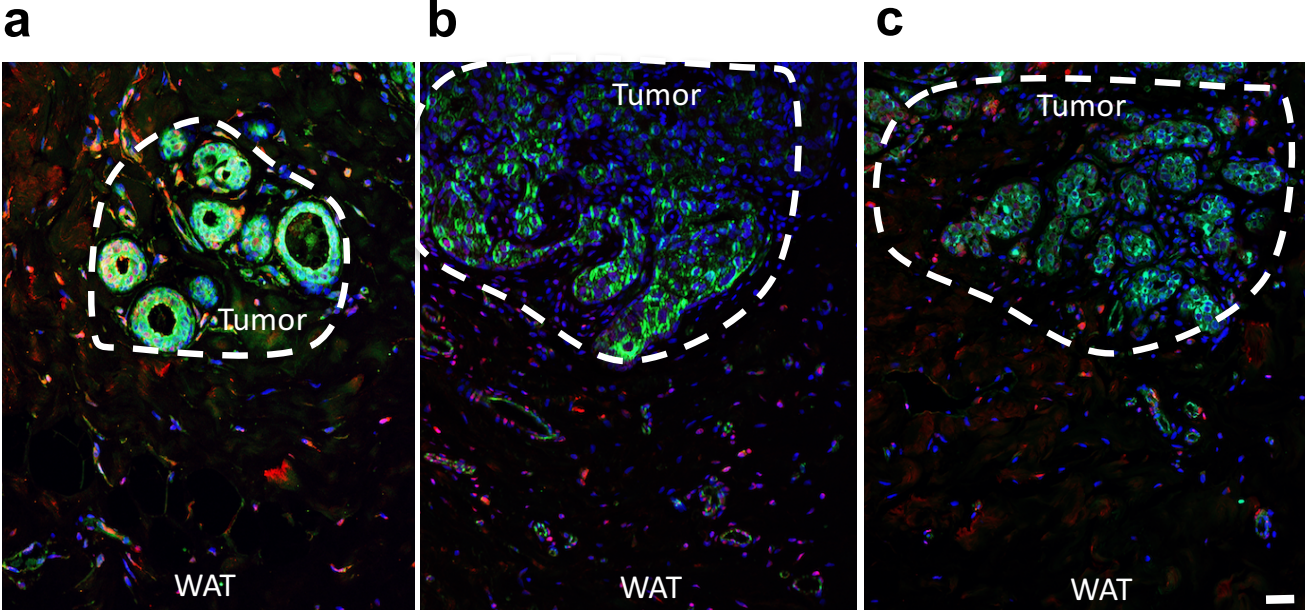


**b** Pep8 CD31 DNA





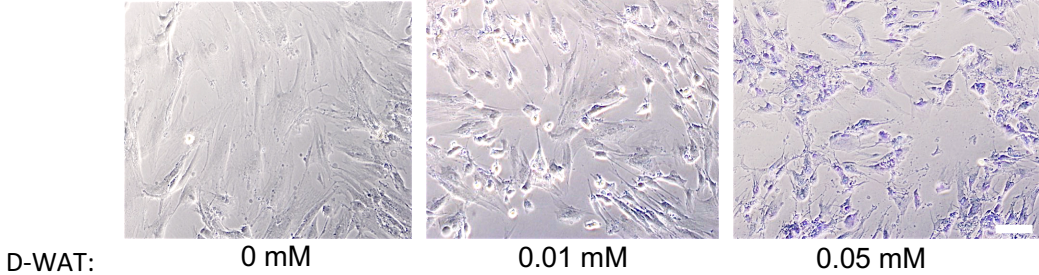
Supplemental Figure 3



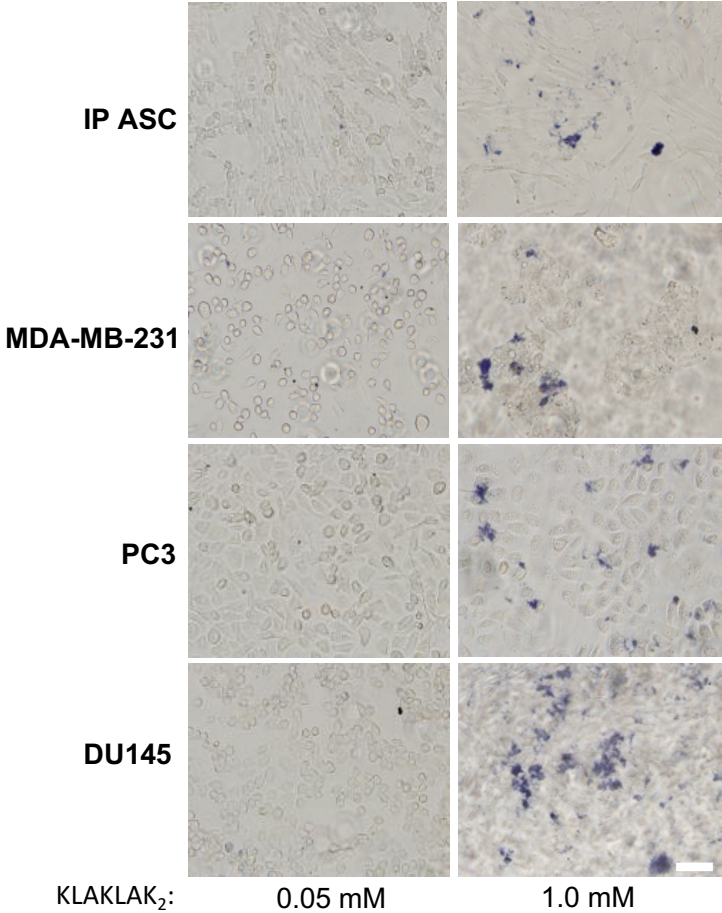


# Supplemental Figure 4

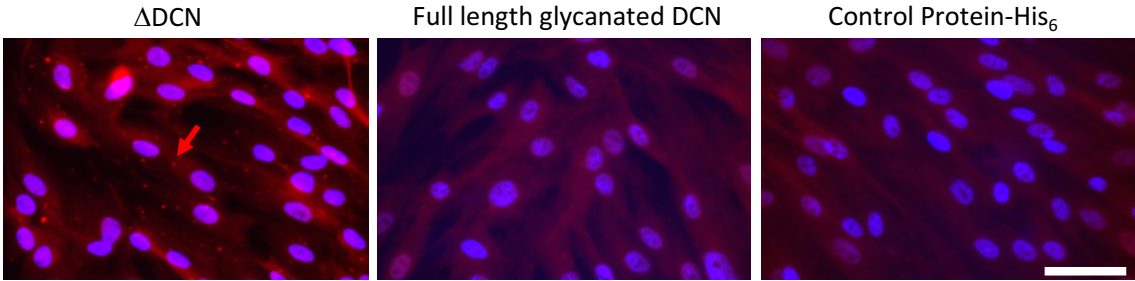
**a**



**b**



# Supplemental Figure 5



**Supplemental Figure 1 Human ASC express non-glycanated DCN that binds to CSWKYWFGEC.** (a) Total proteins were extracted from subcutaneous (SC) and intraperitoneal (IP) WAT of a bariatric surgery patient 1 and the indicated control cultured cancer cells. (b) Membrane proteins were extracted from SC ASC of a bariatric surgery patient 3 and the indicated control cultured cancer cells. Extracts were subjected to immunoblotting with anti-human decorin antibodies. Arrow points to the band doublet, where the upper band is the core decorin. (c) Wild-type and DCN-null MEFs were subjected to anti-DCN IF or incubated with 20 nM biotinylated CSWKYWFGEC and a control peptide CWLGEWLGC / Streptavidin-Cy3. Nuclei are stained with DAPI. Scale bar, 50  $\mu\text{m}$ .

**Supplemental Figure 2 CSWKYWFGEC identifies ASC in human WAT.** Serial paraffin sections of human periprostatic WAT and indicated control organs were incubated with (a) biotinylated CSWKYWFGEC peptide or (b) control peptide Pep8 and subjected to immunofluorescence with antibodies against CD31 (green) and streptavidin (red). Note that CSWKYWFGEC bound cells are observed in WAT. Nuclei are blue. Scale bar, 50  $\mu\text{m}$ .

**Supplemental Figure 3 CSWKYWFGEC identifies ASC in human tumors.** Paraffin sections of human IDC Grade 3 ER+PR- Stage 3 breast cancer (a), DCIS Grade 3 ER-PR- Stage 0 breast cancer (b), and IDC Grade 2 ER+PR+ Stage 1 breast cancer (c) were incubated with biotinylated CSWKYWFGEC



peptide and subjected to immunofluorescence with antibodies against CD31 (green) and streptavidin (red). Note that CSWKYWFGEC bound cells are observed in WAT around the malignant lesions and tumor stroma. Nuclei are blue. Scale bar, 50  $\mu\text{m}$ .

**Supplemental Figure 4 Pro-apoptotic domain does not kill ASC specifically.**

**(a)** Human visceral ASC from patient 2 were treated with indicated concentrations of peptide D-WAT for 4 hr and stained with Trypan Blue. Blue color shows selective killing of ASC at 0.05 mM. **(b)** Human ASC, breast adenocarcinoma (MDA-MB-231) and prostate adenocarcinoma (PC3 and DU145) cells were treated with indicated concentrations of aminohexanoic acid-KLAKLAK<sub>2</sub> conjugate for 2 hr and stained with Trypan Blue. Scale bar, 50  $\mu\text{m}$ .

**Supplemental Figure 5 Extracellular non-glycanated DCN binds to ASC.**

Human subcutaneous ASC were incubated with 100 nM of recombinant His<sub>6</sub>-tagged  $\Delta$ DCN, full-length glycanated DCN (R&D Systems), or control protein CLIC4. After this, cells were washed with 3x PBS, fixed, permeabilized and incubated with His-tag monoclonal (Abserotec MCA1396P) and secondary Cy-3 conjugated antibodies. Note the speckled red signal for  $\Delta$ DCN. Nuclei are blue. Scale bar, 50  $\mu\text{m}$ .