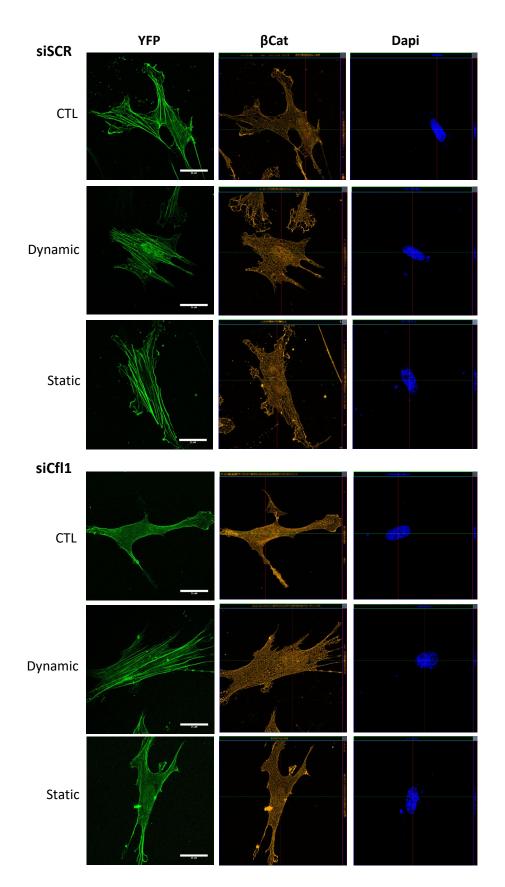


Supplemental 1. YFP-NLS is intranuclear while YFP-NLS-Actin is found in the cytoplasm.

YFP-NLS (Addgene, Cat#145274) and YFP-NLS- β Actin (Addgene, Cat#60613) were overexpressed in MSC and applied single or double time of 2% dynamic strain same as that in fig 3, scale bar = 25 μ m. More YFP-NLS-actin is seen intranuclear after the second bout of strain.



Supplemental 2. Dynamic vs static strain in YFP-expressing cells). MSC overexpressing YFP-NLS- β Actin (Addgene, Cat#60613) in +/- knock-down of Cfl1 or Ipo9 were subject to 2% dynamic or % static strain before stain with anti- β cat (yellow) and DAPI (blue), scale bar = 25 μ m.