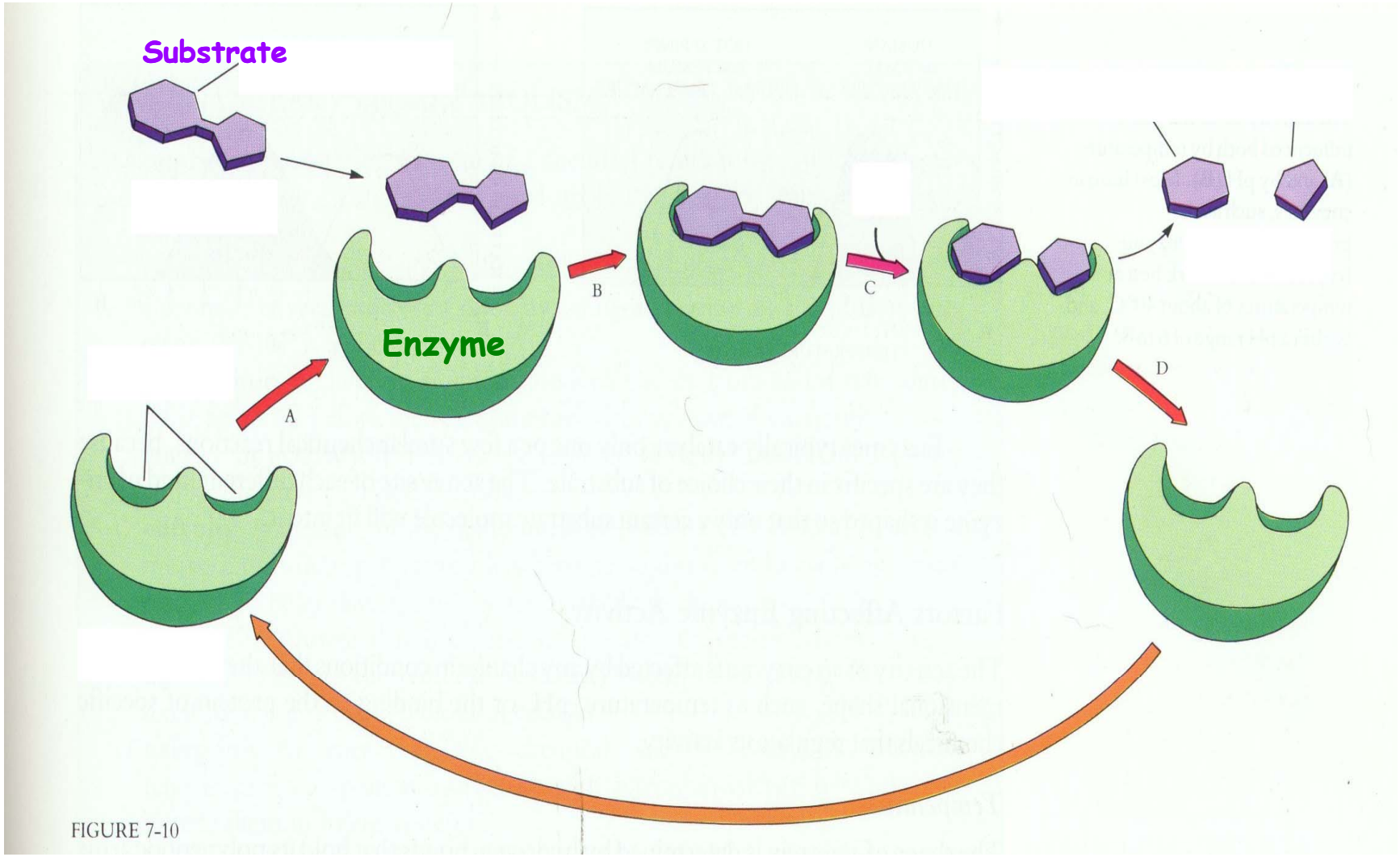
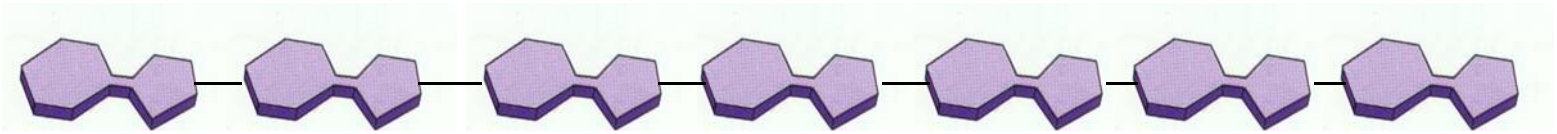
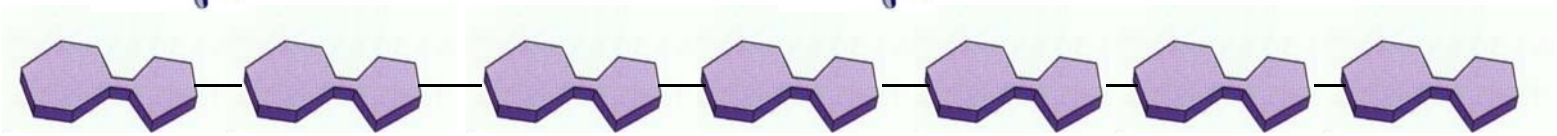



FIGURE 7-10

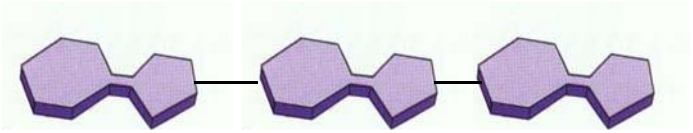
## Monosaccharide Chain= Polysaccharide Chain



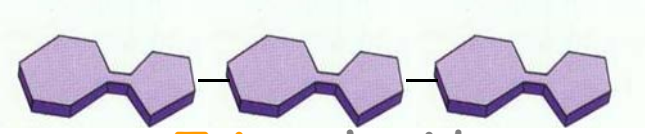
Enzyme



Disaccharide

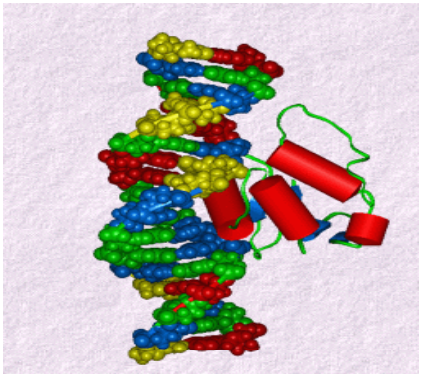


Trisaccharide

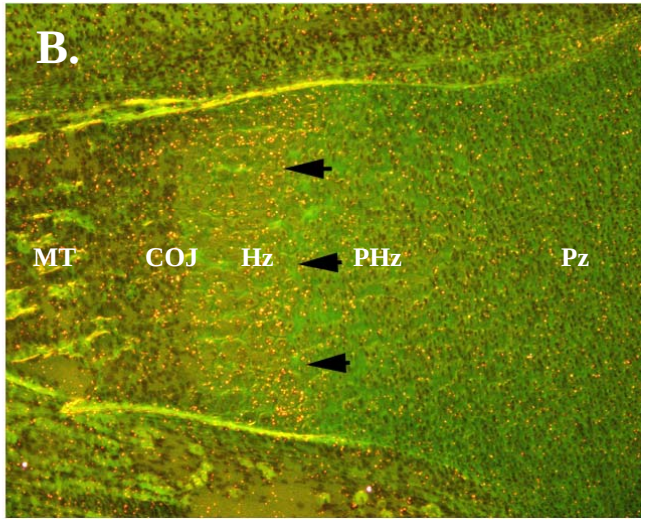


Trisaccharide

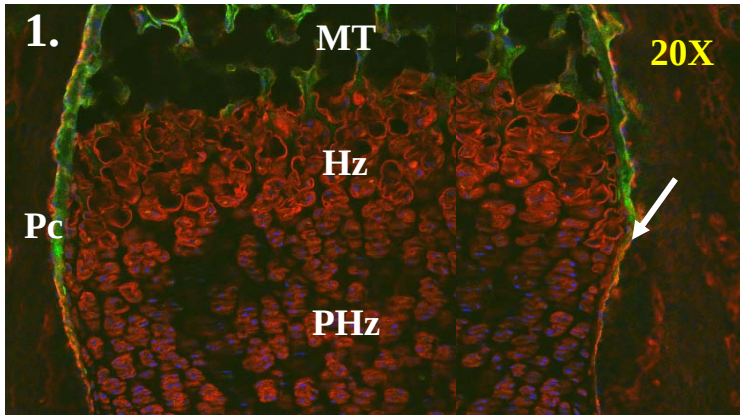
# Heparanase



Heparanase




Heparanase



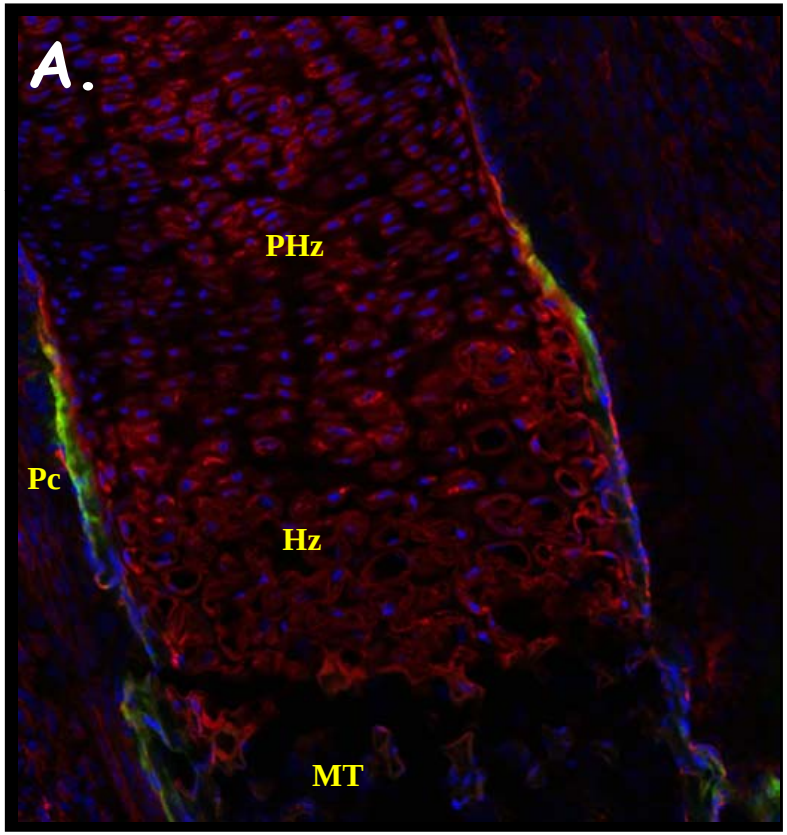

Heparanase

**Problem:** Is heparanase important in bone development?

**Hypothesis:** If heparanase is overexpressed, then bone formation will be abnormal.

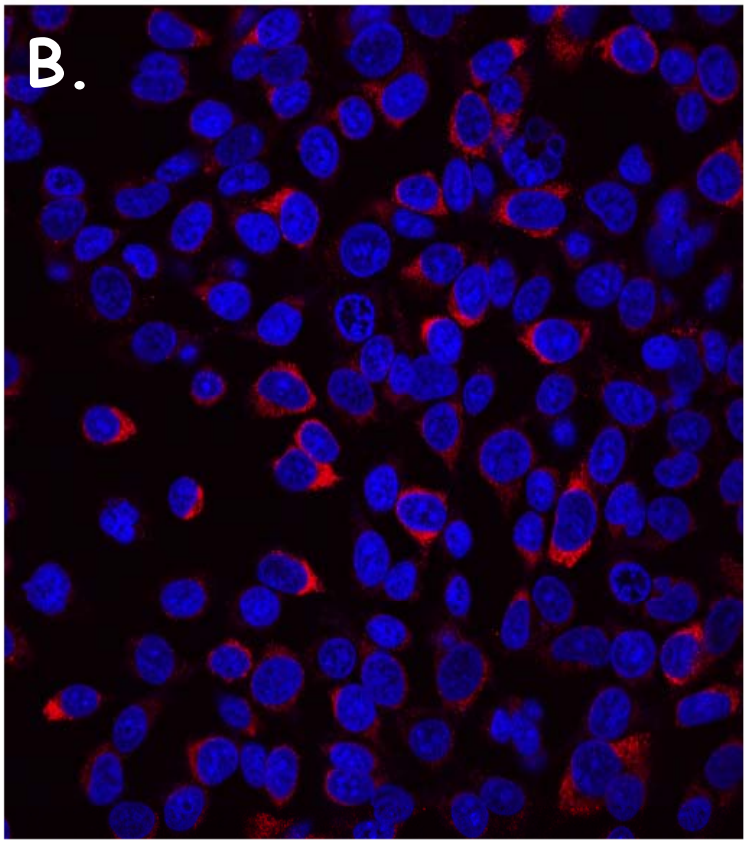
# Heparanase-1 (Hpa-1), a member of the trimolecular complex, expression in mouse limb and chondrocytes

*In vivo*



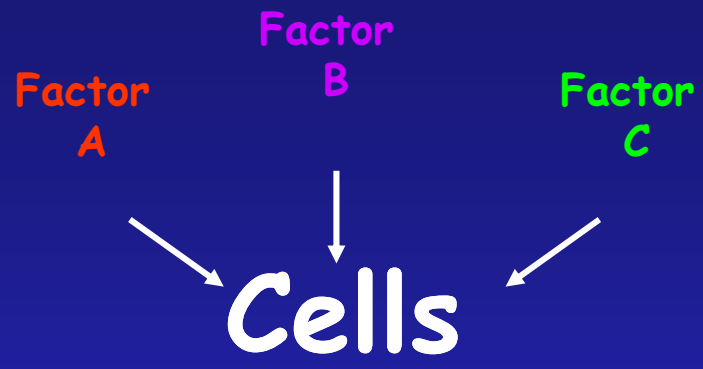

**RED**: Perlecan **GREEN**: Hpa-1
**BLUE**:Nuclei

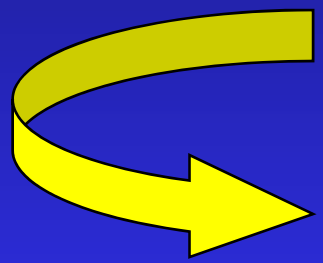
*In vitro*



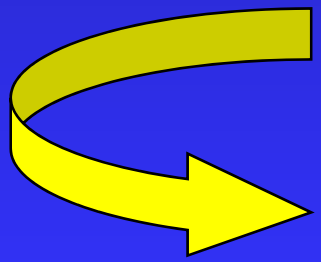

**RED**: Hpa-1 **BLUE**:Nuclei

2day old metatarsal
from ICR mouse



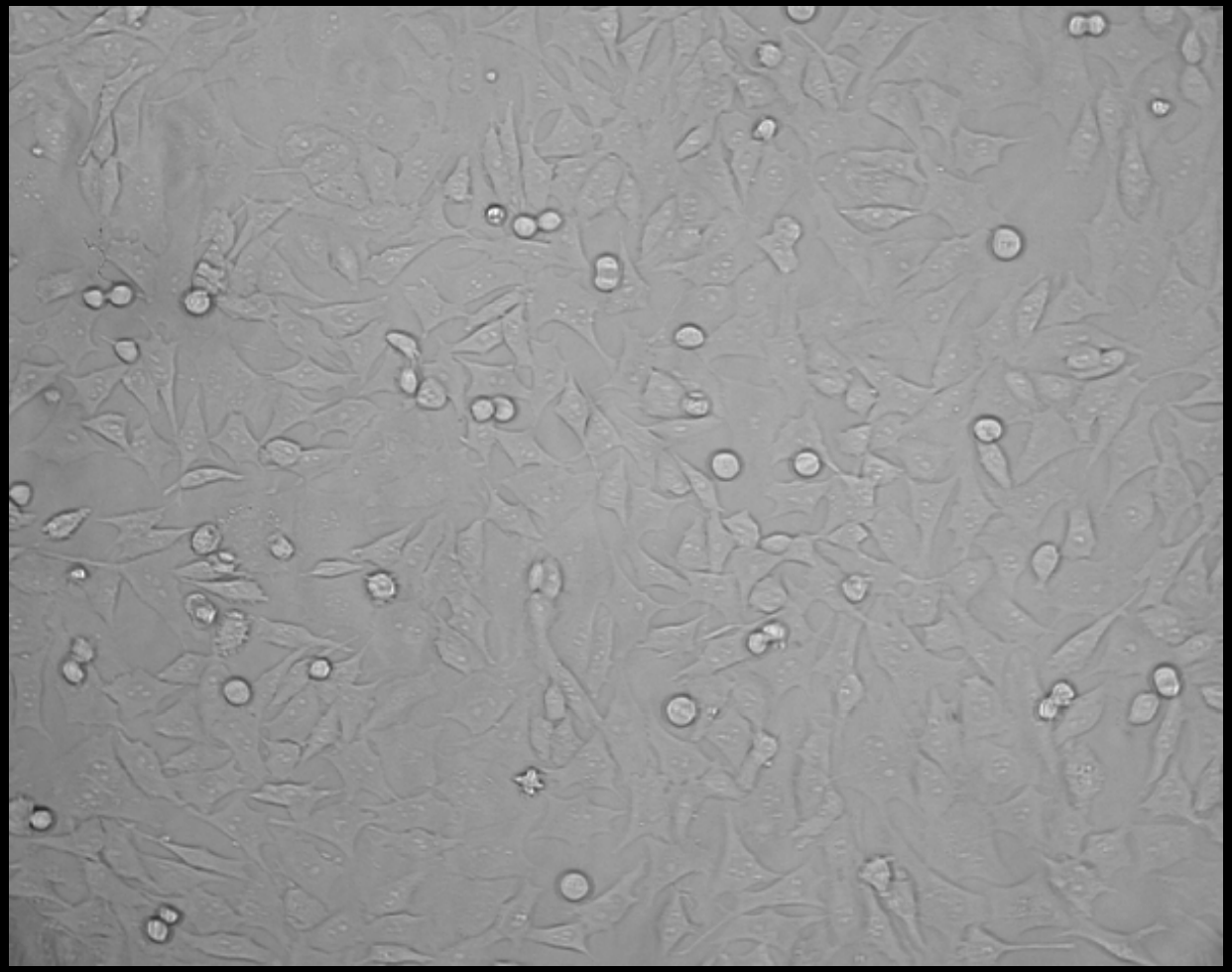



Tissues



Organs

How does this relate to my "science project"?



ATDC5

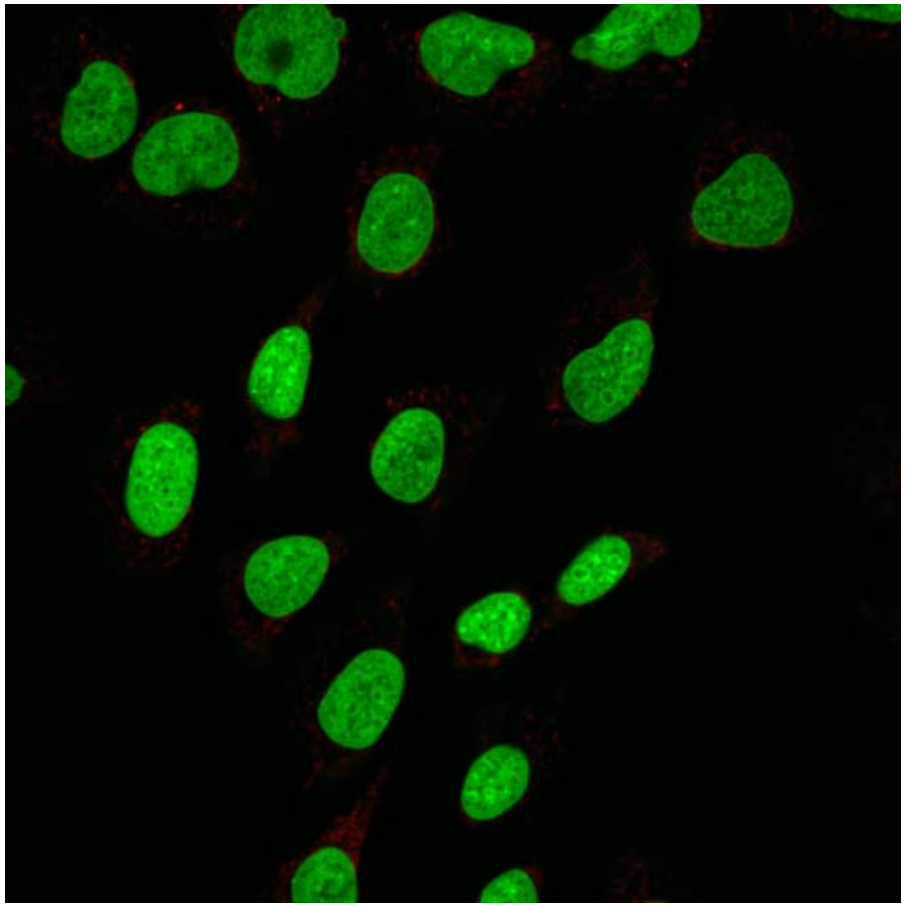
# Hpa-1 Staining in undifferentiated ATDC5 parental and overexpression clone.

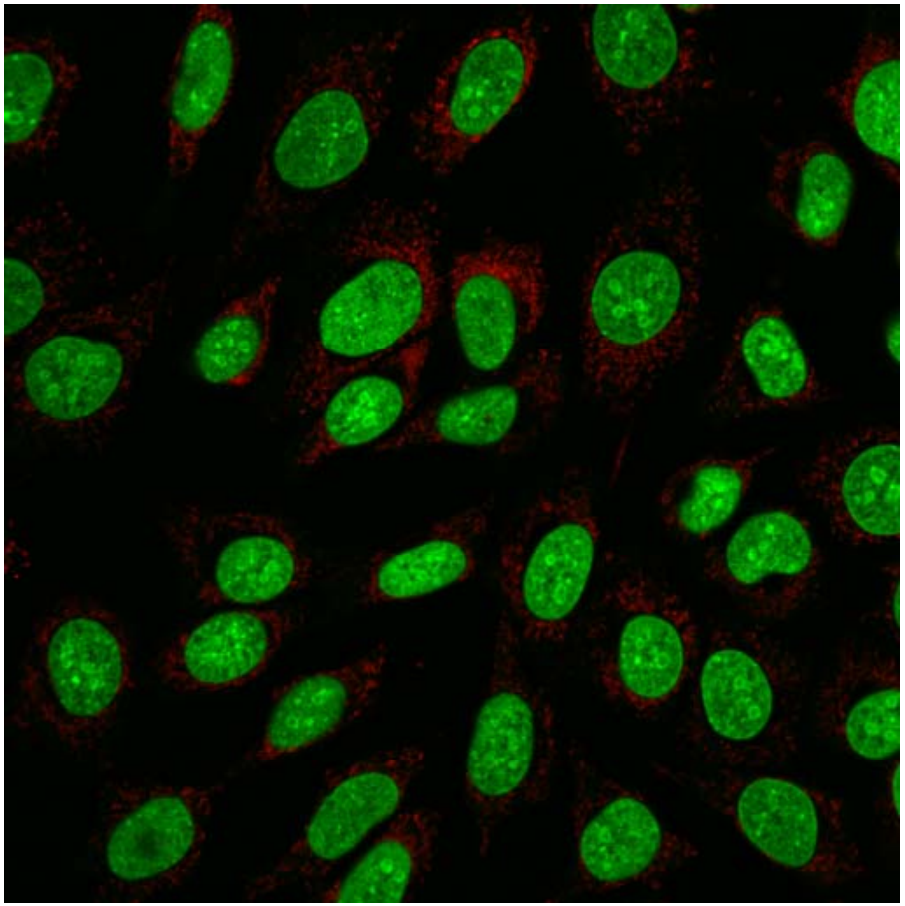
There appears to be more Hpa-1 in overexpression clone which may be a confirmation of overexpression

Hpa-1
DRAQ5

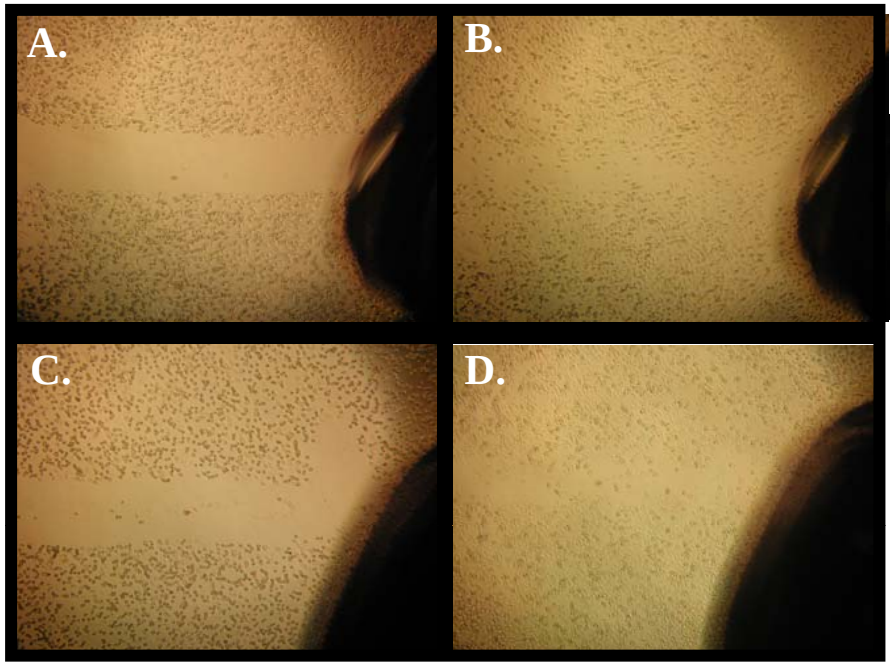
ATDC5 parental

HH30 overexp.clone

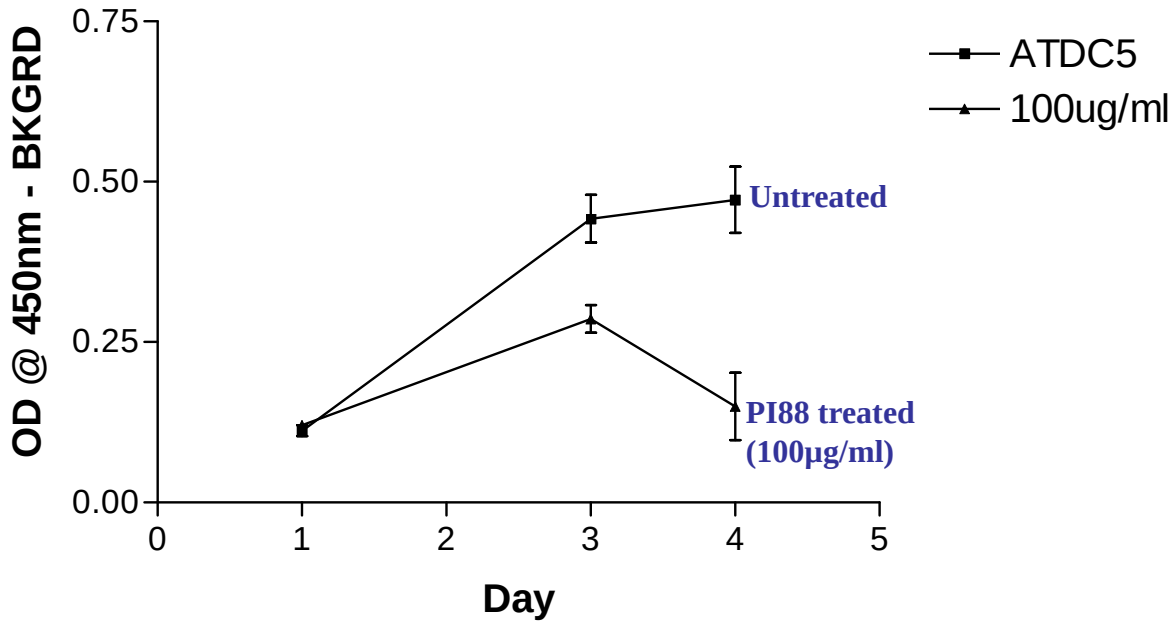


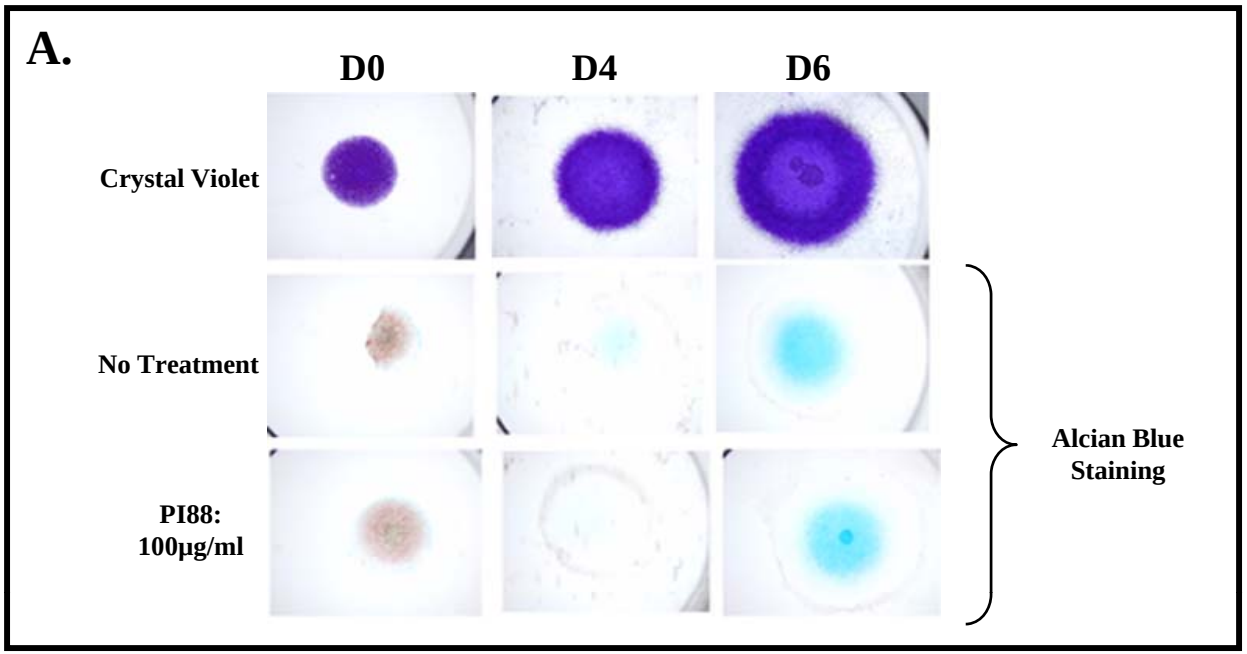


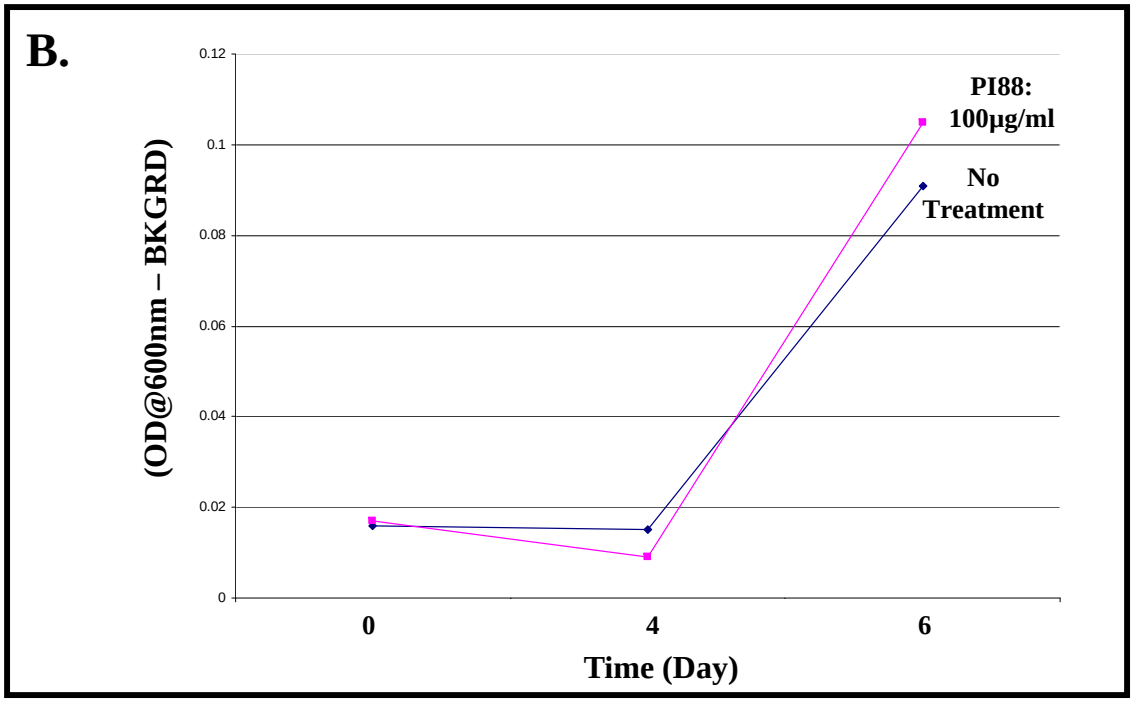
**A.** **Wound Healing Assay**




**B.** **Proliferation Assay**




A.
D0
D4
D6
Crystal Violet
No Treatment
PI88:
100µg/ml
Alcian Blue
Staining


B.
(OD@600nm – BKGRD)
0.12
0.1
0.08
0.06
0.04
0.02
0
0
4
6
Time (Day)
PI88:
100µg/ml
No
Treatment