From: **Michael Rappleye** mrapple2@illinois.edu
Subject: ME 482: Question 3 Examples of Tissue Adapting
Date: August 24, 2016 at 10:42 AM
To: Wagoner Johnson, Amy Jaye ajwj@illinois.edu

MR

Hey Professor Wagoner Johnson,

Here is the list the third group came up with to answer the question:

1) working out - hypertrophy building muscles
2) Tendons becoming more flexible with stretching
3) bones heal back stronger than previously when broken
4) hypoxic conditions change how cancer cells behave
5) stem cells differentiate differently when cultured on substrates of varying hardnesses
6) blood coagulation from wounds
7) vascular walls changing in elasticity in response to diet (heart disease)
8) sprains - get stability from swelling.

The reason for each of these is to maintain homeostasis, so the organism can survive, prevent and/or mitigate injury.

Mike Rappleye

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