BROWN FAT TISSUE website

http://mireiacostariera.wix.com/brownfattissue

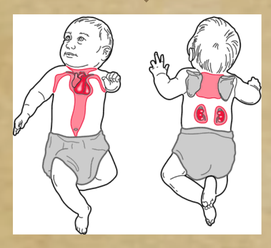
Motivation

This is a general divulgation paper with the intention of bringing science closer to the people.
I have decided to elaborate this project using a website because I think that using this technology is the best way to accomplish this objective.

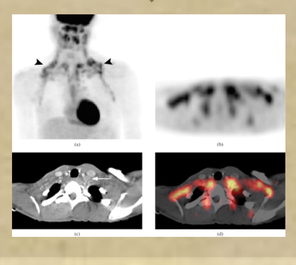
History

Despite as it may seem, the brown fat tissue isn't a new discovery. It has a large and interesting history.

1551 → 

1960 → 

1970 → Brown fat tissue → obesity

1990 → 

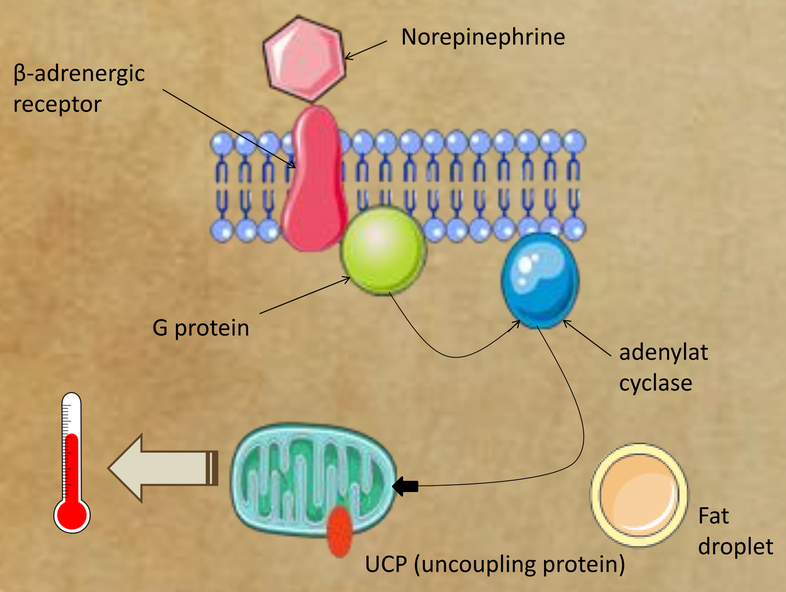
2007 → UCP1

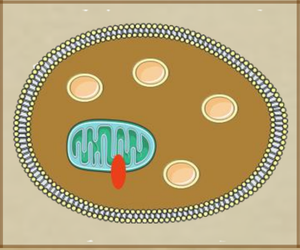
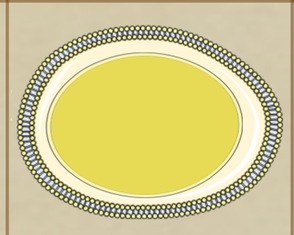
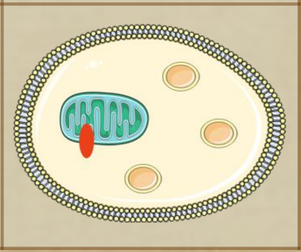
2012 → Beige cells

2012 → Irisin

Structure and function

The brown fat can metabolize white fat and glucose to produce heat



	Brown	White	Beige
Heat production	✓	✘	✓
UCP1 expression	✓	✘	✓
Cell origin	muscle	perycites	perycites
Mitochondrial ⇧⇧	✓	✘	✓
Structure			

Evolutionary Advantage

The brown fat tissue has had a very important role in mammals evolution. It has been key in the establishment of some of the characteristics of mammals.

- Post-natal survival
- Hibernation and arousal
- Cold acclimation
- Survive on weak diets

Future Applications

The pharmaceutical and biotech companies are working to find a drug that can increase the amount of brown fat a person has and to activate the tissue. It's thought that this will help in diseases such as **obesity** and **diabetes**. Clinical trials of irisin are going to be started within 2 years .

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