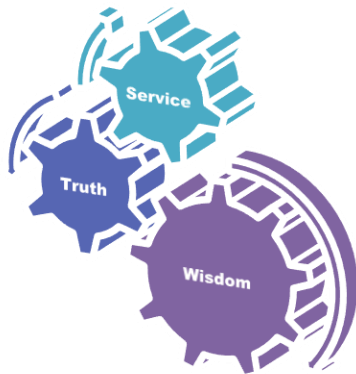


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# Vision; The Dream/Tomorrow

- **Motto**



- To impart evidence based research oriented medical education
- To provide best possible patient care
- To inculcate the values of mutual respect and ethical practice of medicine



# MSK-1 Module(LGIS) Connective Tissue

Dr. Mohtasham Hina

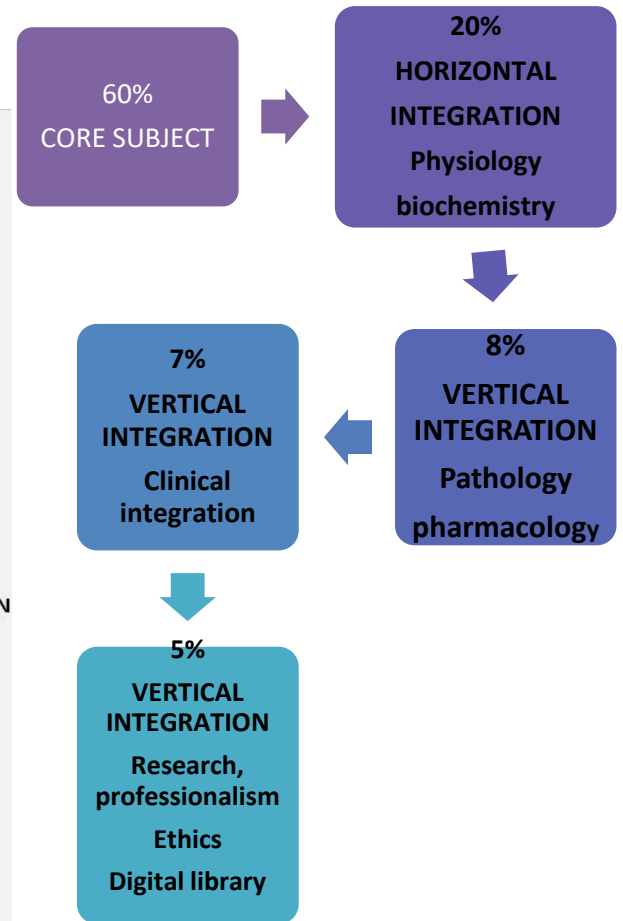
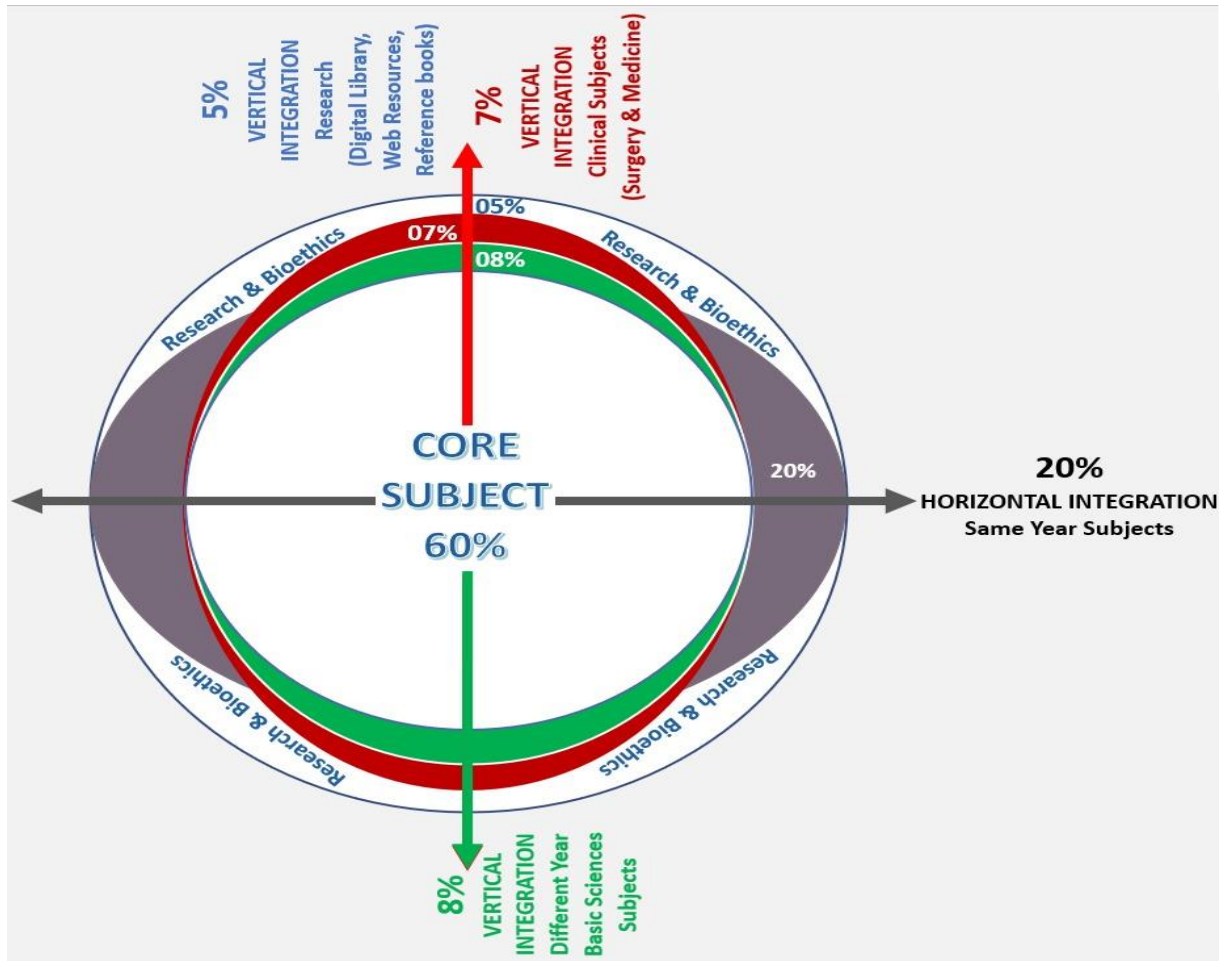
05- 04-2023



# Learning Objectives

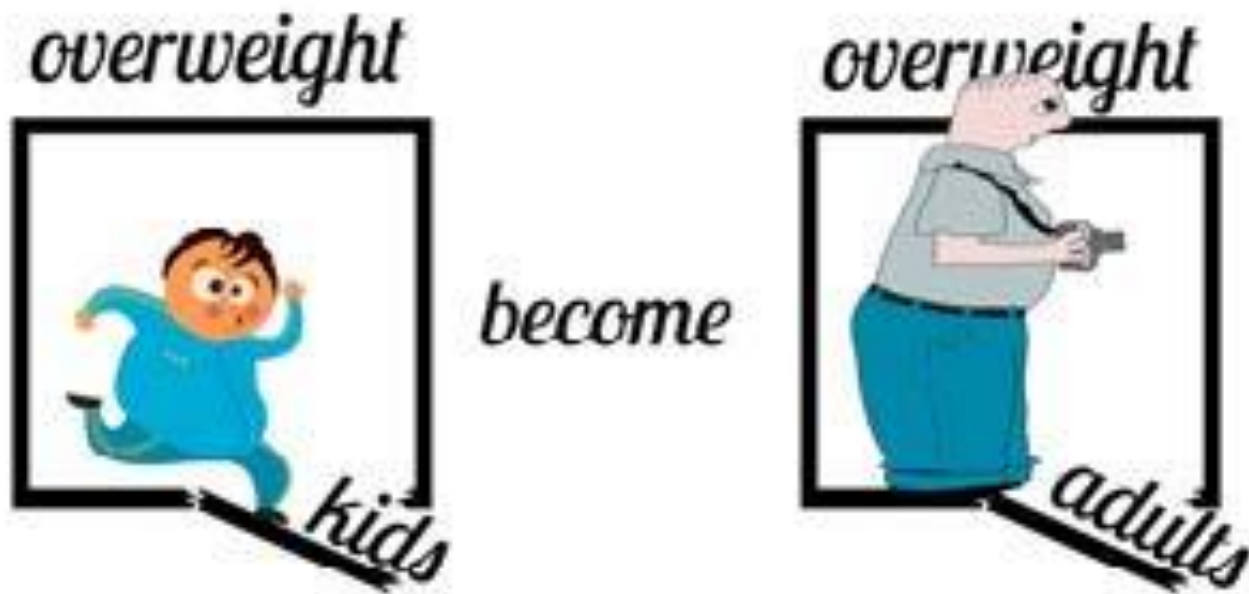
- At the end of lecture 1<sup>st</sup> year students should be able to
- Classify connective tissue
  - Location and functions of different types of connective tissue
  - Histological features of various types of connective tissue
  - correlate clinical aspects
  - To understand bio-physiological aspect connective tissue
  - Read a research article
  - Use digital library

# Professor Umar Model of Integrated Lecture



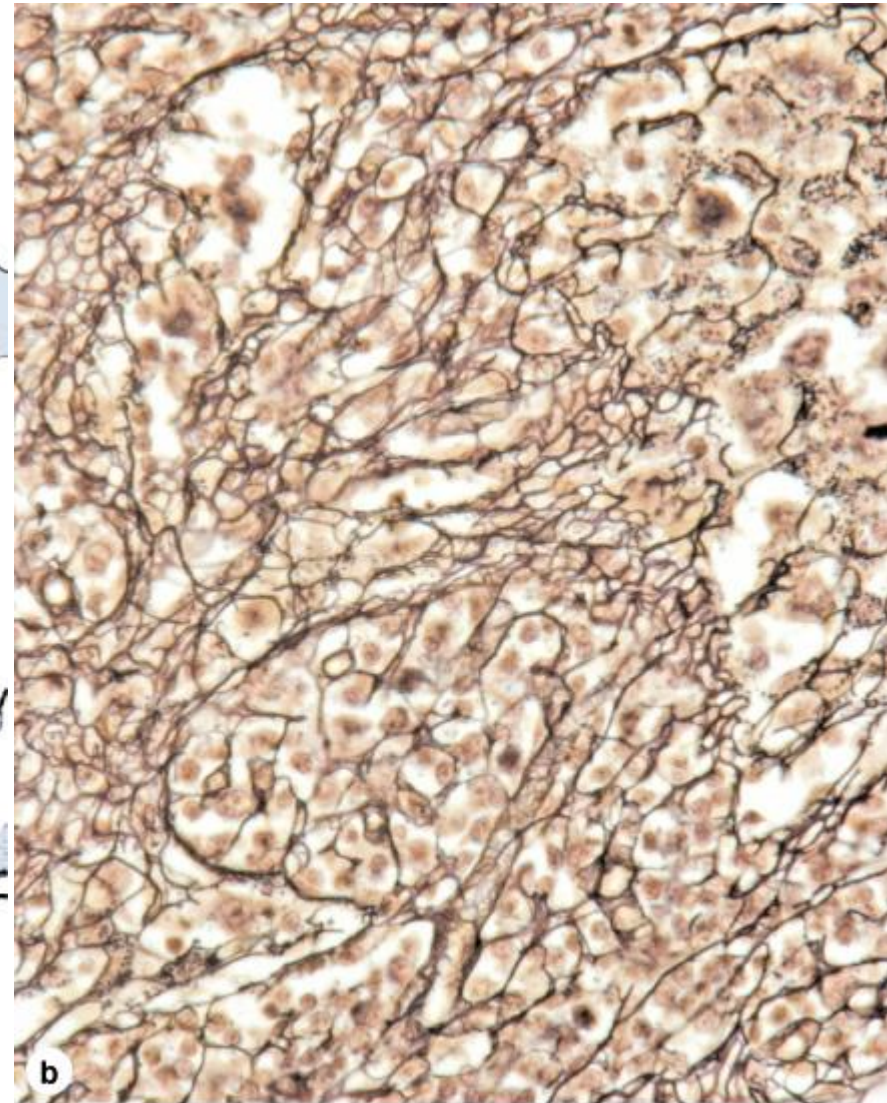
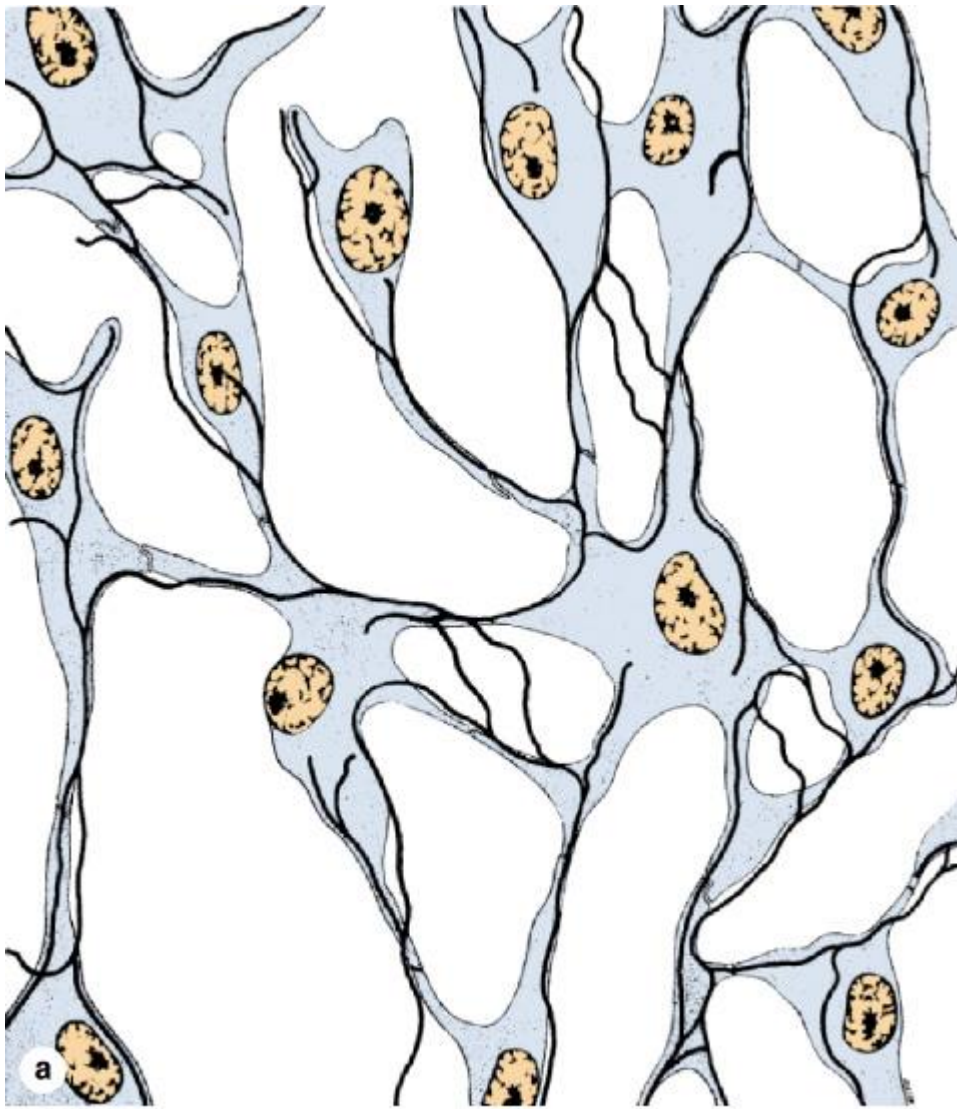
# Adult and childhood obesity

- hypertrophy
- Stem cells lipoblast





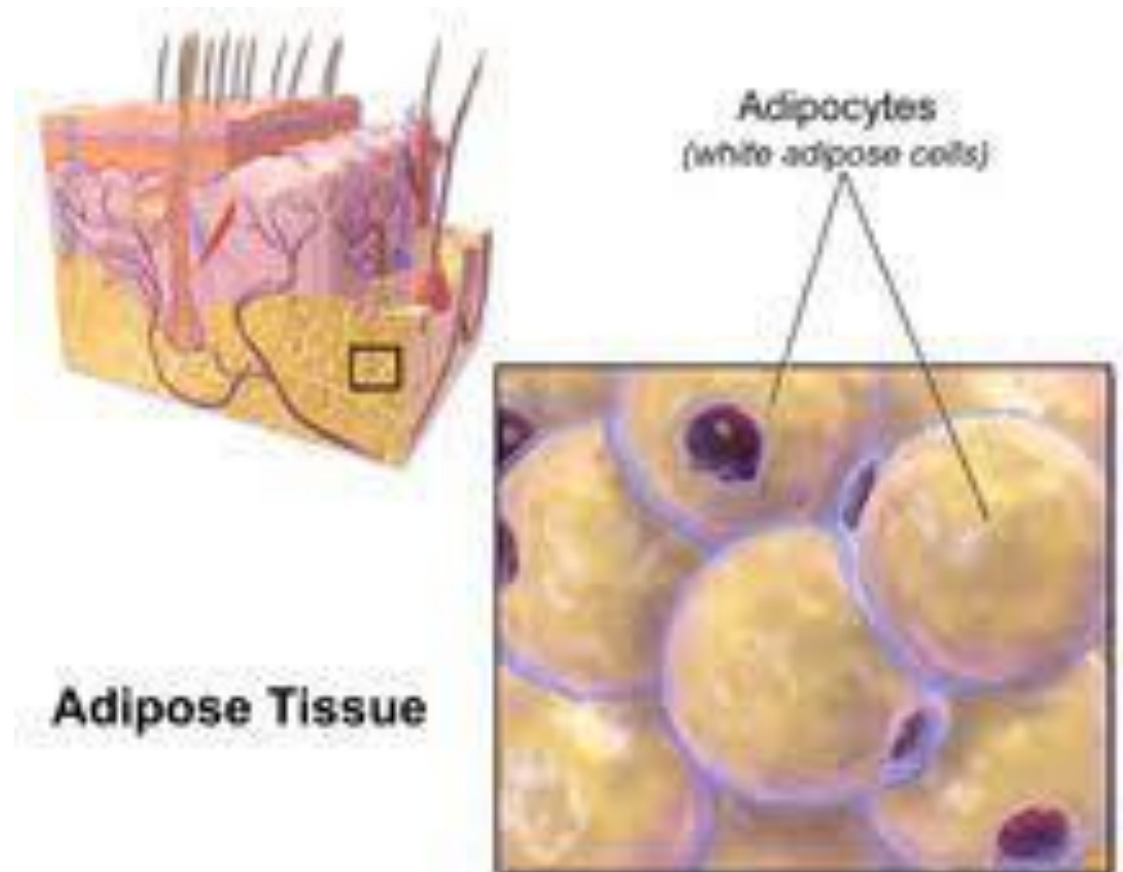
# Reticular Connective Tissue



Source: Mescher AL: *Junqueira's Basic Histology: Text and Atlas*,

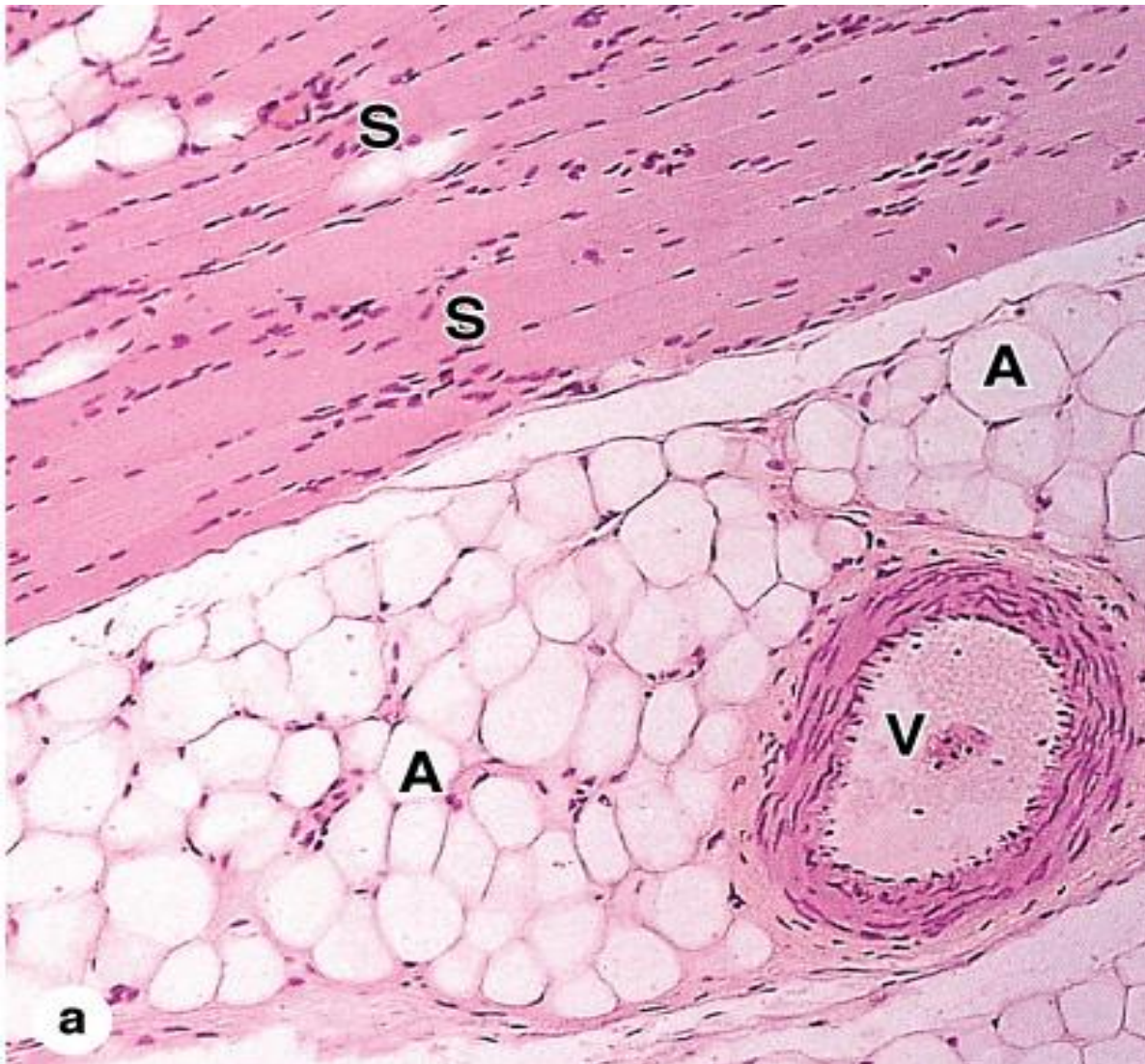
# Adipose tissue

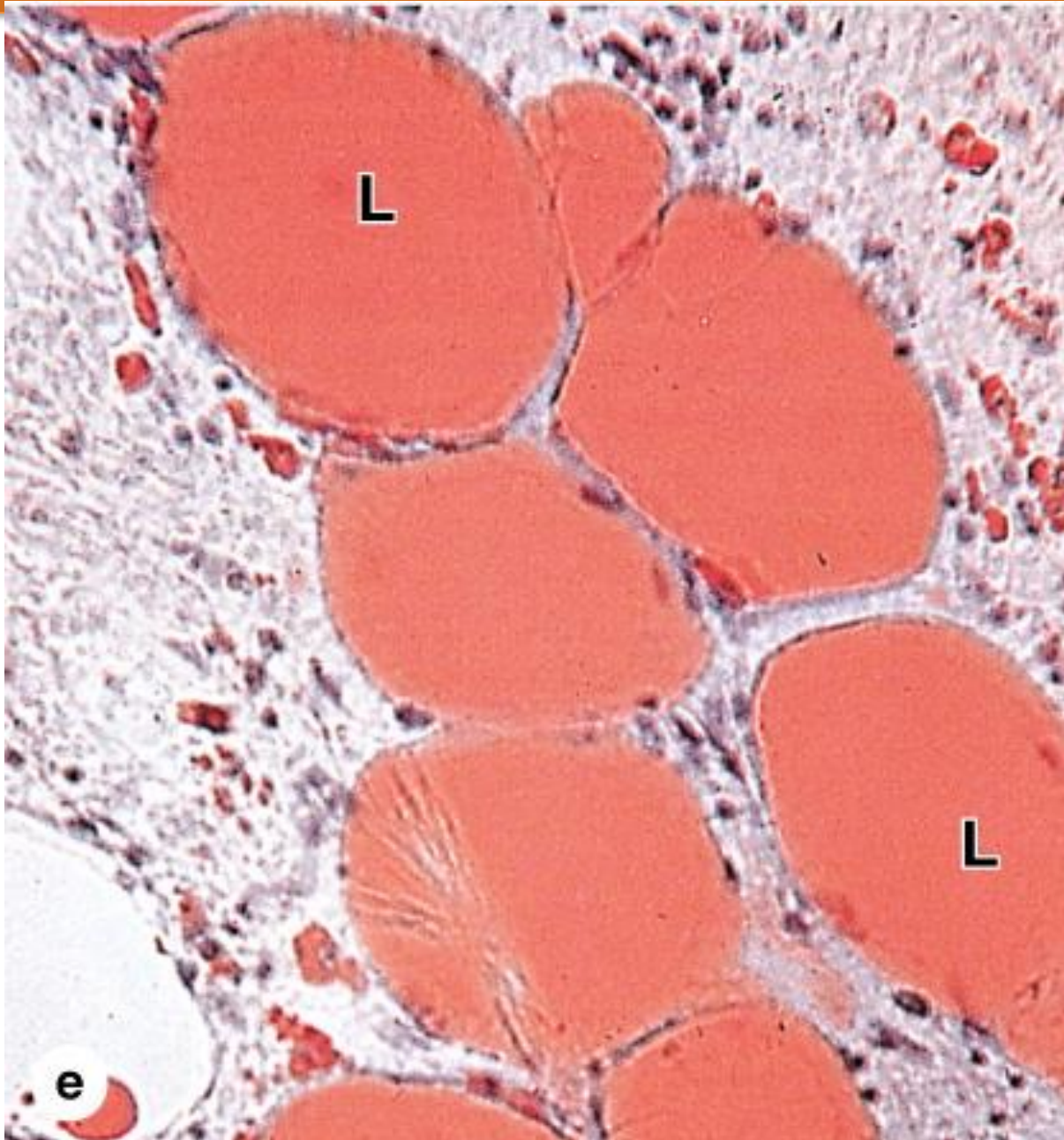
- White adipose
- Brown adipose





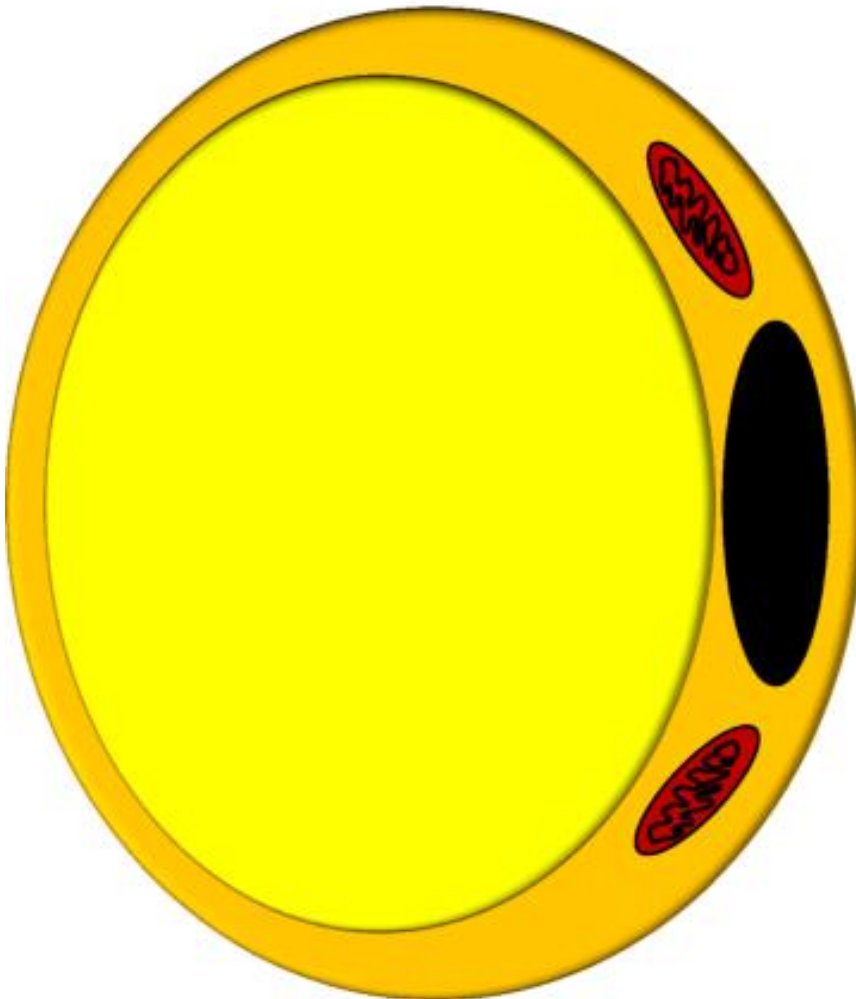
# White adipose tissue



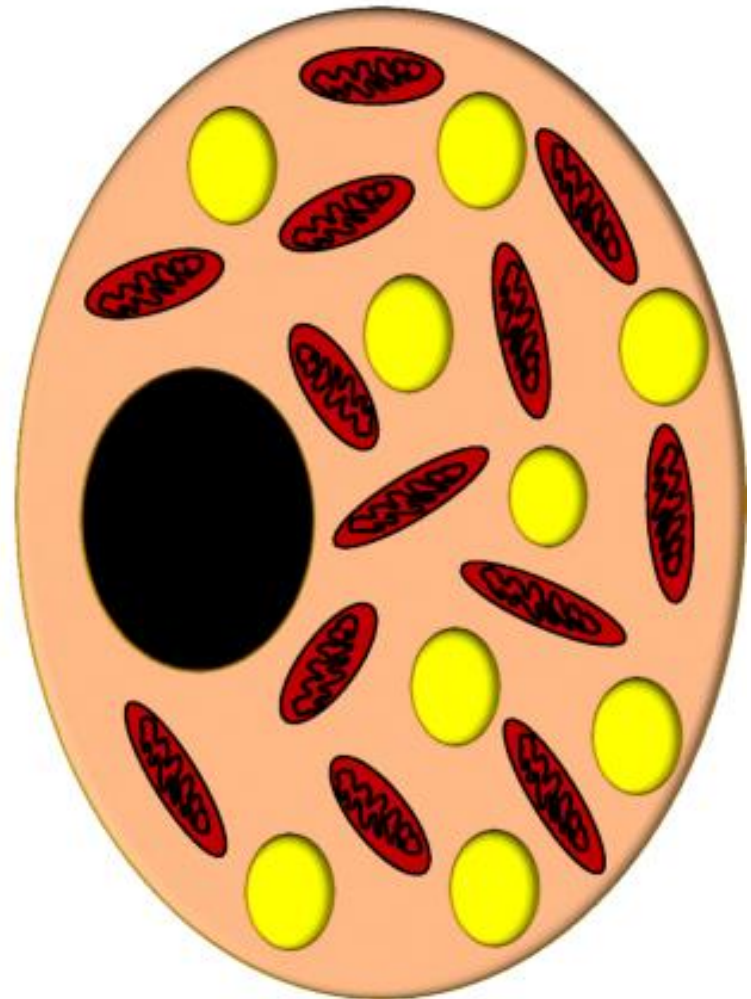


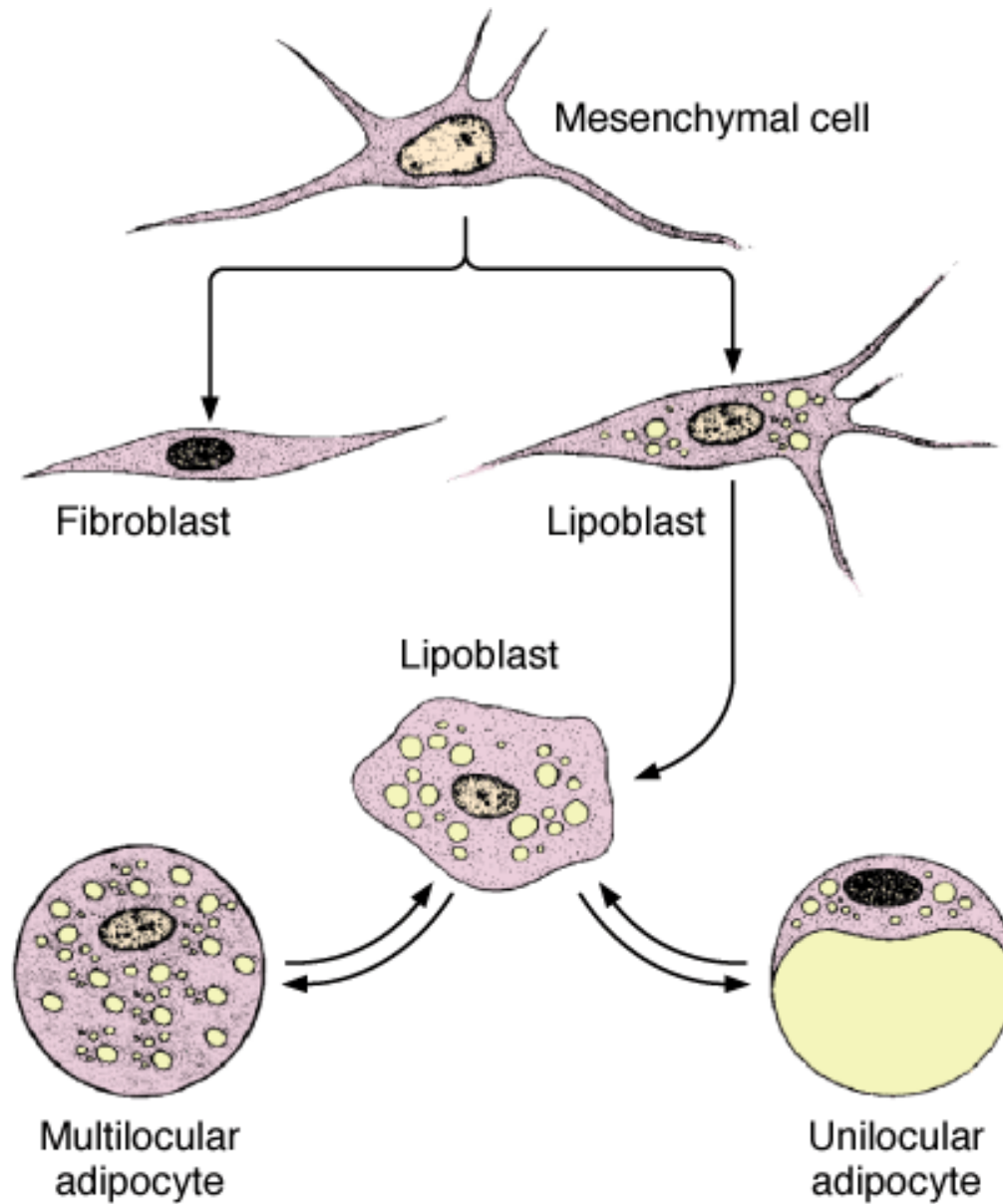


**White adipocyte**



**Brown adipocyte**

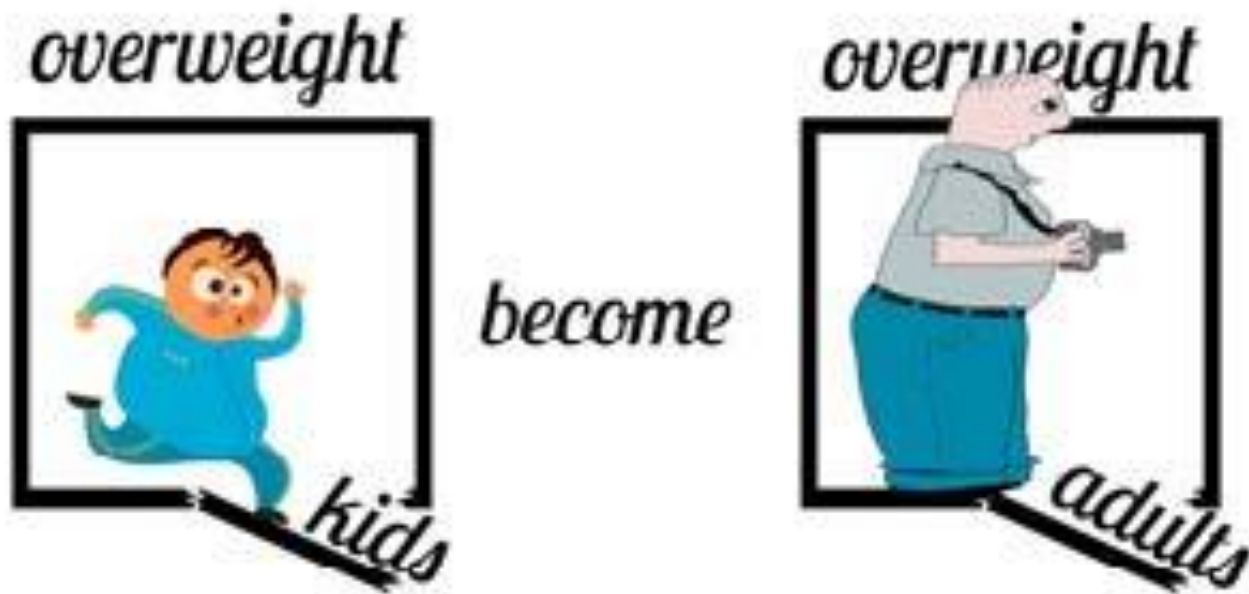




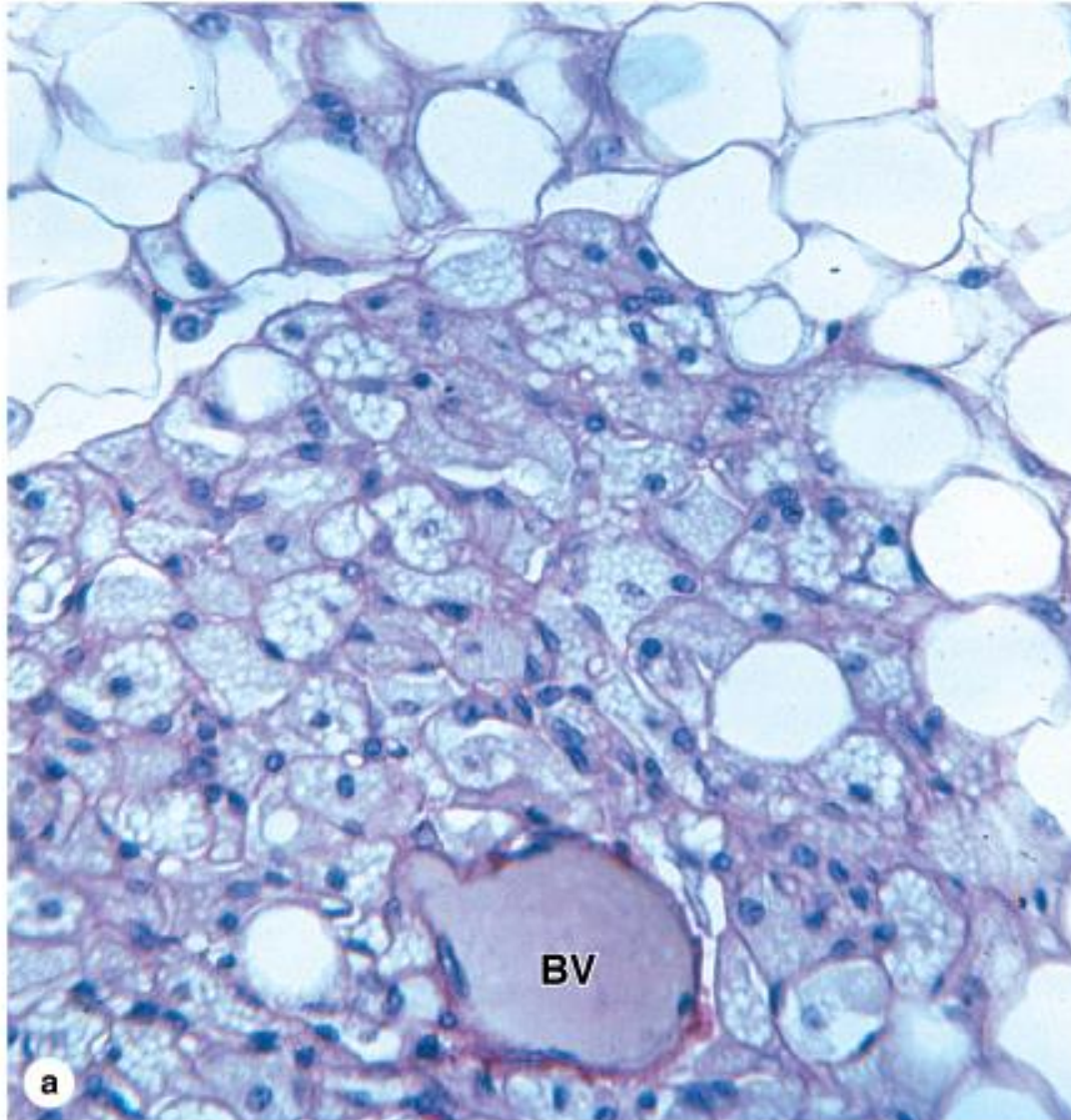


# Adult and childhood obesity

- hypertrophy
- Stem cells lipoblast



# Brown adipose tissue





## Bio-physiological aspect

- brown adipose produce heat by non-shivering thermogenesis
- **Mitochondria** contain transmembrane protein thermogenin that does not allow the production of ATP but heat dissipation.



# Lipomas



## Research article

- **Update on Adipose Tissue and Cancer**
- Kristy A Brown, Philipp E Scherer, Update on Adipose Tissue and Cancer, *Endocrine Reviews*, Volume 44, Issue 6, December 2023, Pages 961–974,  
<https://doi.org/10.1210/endrev/bnad015>

# Update on Adipose Tissue and Cancer

- There is strong evidence linking increased adiposity to the development of 13 types of cancer.
- increased adiposity comes metabolic dysfunction and insulin resistance, and increased systemic insulin and glucose support the growth of many cancers, including those of the colon and endometrium

## Breaking Bad News (Cancer)

Bio Ethics

- **Autonomy**
- **Beneficence and Non-maleficence**
- **Truthfulness**
- **Respect for Dignity**
- **Cultural Sensitivity**
- **Confidentiality**
- **Support and Follow-up**



## Breaking Bad News (Cancer)

### Family Medicine

- **Diagnosis and Initial Assessment**
- **Referral to Specialists**
- **Treatment Planning and Monitoring**
- **Symptom Management and Supportive Care**
- **Palliative Care and End-of-Life Care**
- **Long-term Follow-up and Survivorship Care**
- **Coordination and Advocacy**

## How To Access Digital Library

- Go to the website of HEC National Digital Library.
- On Home Page, click on the INSTITUTES.
- A page will appear showing the universities from Public and Private Sector and other Institutes which have access to HEC National Digital Library HNDL.
- Select your desired Institute.
- 5. A page will appear showing the resources of the institution
- 6. Journals and Researches will appear
- 7. You can find a Journal by clicking on JOURNALS AND DATABASE and enter a keyword to search for your desired journal.

# Learning Resources

- Junqueira's Basic Histology 12<sup>th</sup> Edition, Chapter 6
- Junqueira's Basic Histology 12<sup>th</sup> Edition, Chapter 7
- Histology , A text and Atlas by Michael H.Ross 6<sup>th</sup> Edition, Chapter 6
- Histology , A text and Atlas by Michael H.Ross 6<sup>th</sup> Edition, Chapter 7
- Google scholar
- <https://pubmed.ncbi.nlm.nih.gov/?term=Taylor%20DW%5BAuthor%5D>