



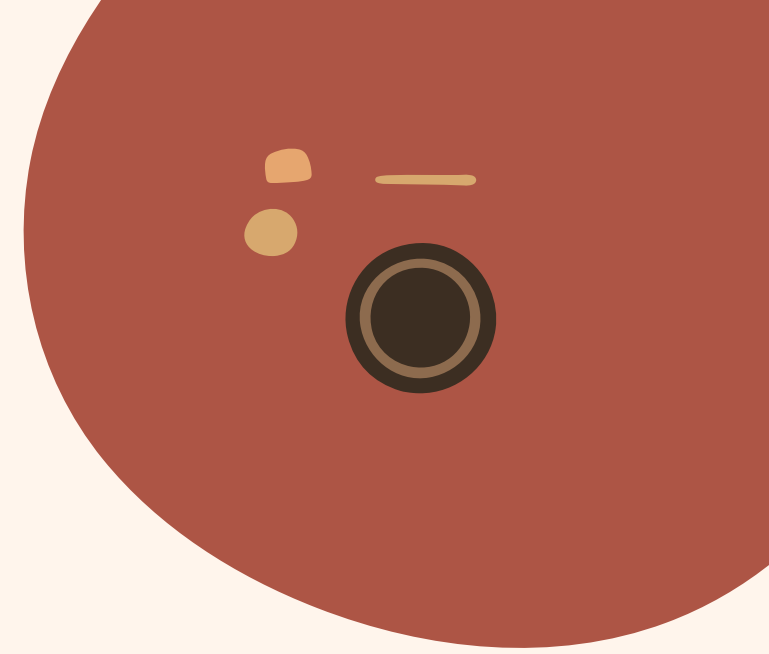
# Linguae Biologiae

Biomedical Terminology  
and its Real World  
Applications

Presented by Sydney Wong



# Biomedical Terminology



- What is biomedical terminology?
  - Words and language used in medical and other health fields
  - Anatomical and procedural terms

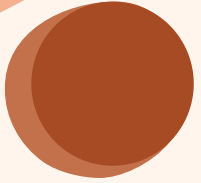
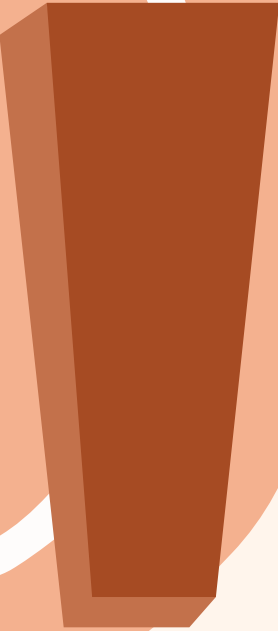
Off the top of your head, what scientific terms do you know?

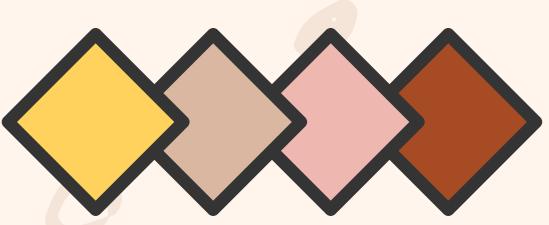
Do you know the origin of those words?

How did you learn them?



**Kahoot!**





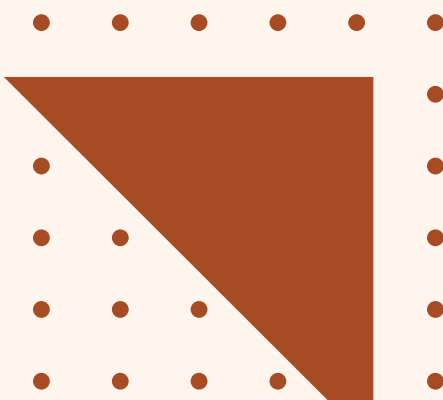
# Common Terminology

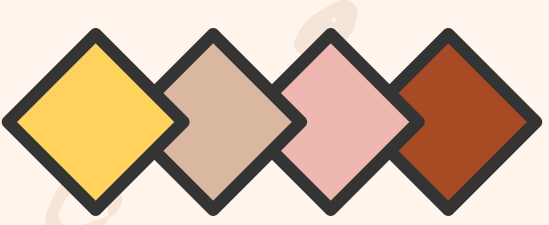
## Prefixes

auto- self	chole- bile	hemat- blood
cardio- heart	dermo- skin	hystero- uterus
cerebro- brain	fibro- fiber	thrombo- clot

## Suffixes

-(a)emia in blood	-lysis breakdown	-stasis slow/stop
-cide kill	-oid resembling	-trophy growth
-ectomy removal	-osis state/condition	





# Common Terminology

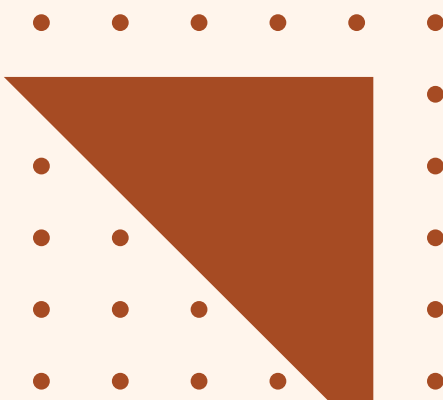
## Prefixes

auto- (75.3%)      chole- (49.3%)      hemat- (68.5%)  
cardio- (94.5%)      dermo- (93.2%)      hystero- (65.8%)  
cerebro- (84.9%)      fibro- (67.1%)      thrombo- (56.2%)

## Suffixes

-(a)emia (62.5%)      -lysis (58.3%)      -stasis (75%)  
-cide (72.2%)      -oid (52.8%)      -trophy (65.3%)  
-ectomy (84.7%)      -osis (54.2%)

% of people who answered "Yes" to knowing the meaning of the vocabulary.



# The Significance

- Med. term and jargon is overwhelming
- Language barriers
- Higher education is inaccessible to many
- Regular clinical appointments are inaccessible to many
- In many cases, people have to find information and resources on their own

- Scholarly articles difficult to understand even at a university level
- People are not taught how to efficiently utilize higher-level resources without specific four-year degrees
- Intro level courses do not emphasize the importance of the studies in the same way that upper division courses do

# A Proposed Solution

- Integrate Latin and Greek roots in biology curriculums
  - Both high school and college level
- Teach skills to dissect a research paper
- How to apply this knowledge in a real-world setting

Rather than reduce the complexity of literature, work to equip people with the skills to understand it and effectively use it.

# Goals

- Aiming to equip everyone with the skills to advocate for their health and the health of loved ones
- Reduce structural inequalities in the medical field
- Encourage interdisciplinary cooperation between humanities and STEM



## Understanding Medical Terminology

- Roots
- Definitions
- Applications

## Dissecting a Research Paper

- Abstract
- Results
- Discussion

The intention is not to teach students how to be future doctors, but instead equip them with the tools to utilize all of the resources around them. Biology does not have to be restricted to scientists and doctors.



# Integrations

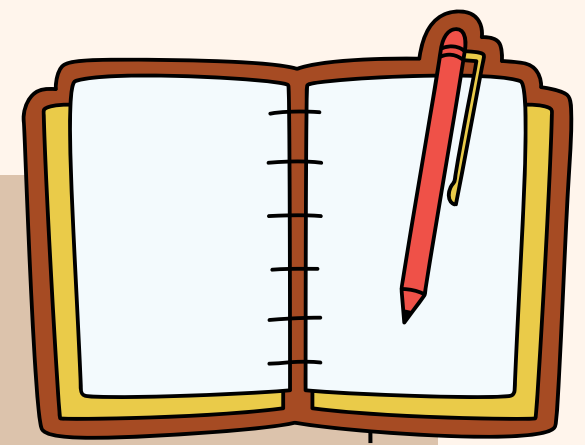
## High School

- Utilize medical terminology in biology courses
  - Dedicated unit for teaching the basics (prefixes, suffixes)
- How to find reputable resources
  - Google Scholar, PubMed
- Utilizing resources
  - Abstracts, results, and conclusions
- Use digestible educational media in teaching
  - YouTube (Chubbyemu is great)

## University

- Intro to Medical Anthropology (100-200 level)
- The Anatomy of Research Paper
- Biomedical Terminology
  - I: Greek and Latin Roots
  - II: Processes and Procedures
  - III: Utilizing Biomedical Language
- Using Language in a Clinic Setting
  - Pre-requisite: Biomedical Terminology III

# Class Structure



## In Class:

- Worksheets- define roots and list examples that you can think of, fill in the blank
  - Ex: Hypo- low/under. **Hypoglycemic** (**low** blood sugar), **hypokalemic** (**low** blood potassium)
  - Ex: \_\_\_glycemic: Low **blood** sugar
- Paper workshops- understand research papers
  - What is an abstract, discussion, result, and conclusion?
  - What is a reputable source, and **how do you find one?**

## Homework:

- Choose a root and research a disease, condition, or procedure associated with it
  - Applying the skills learned in class

Q

A

Questions

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