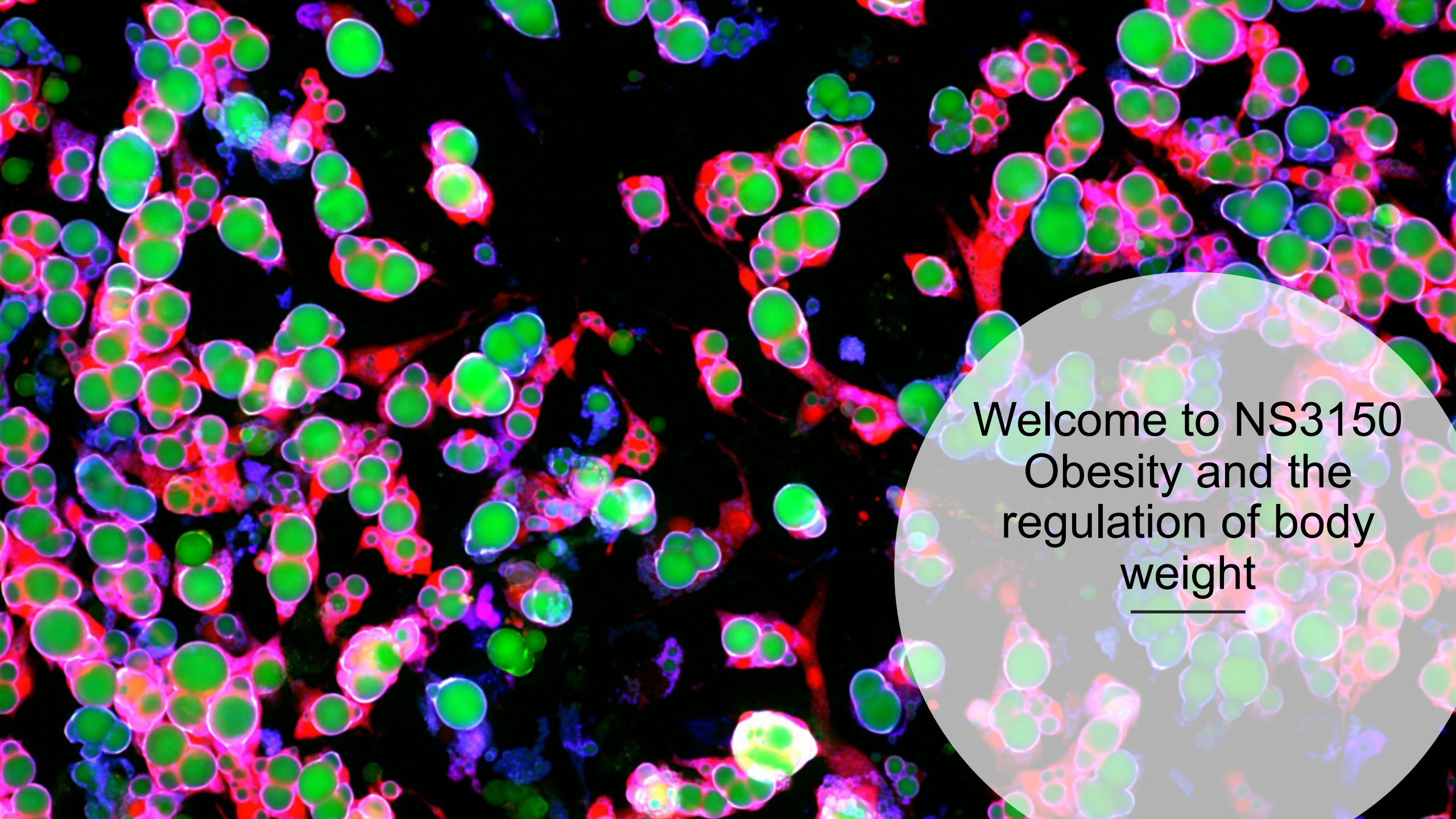
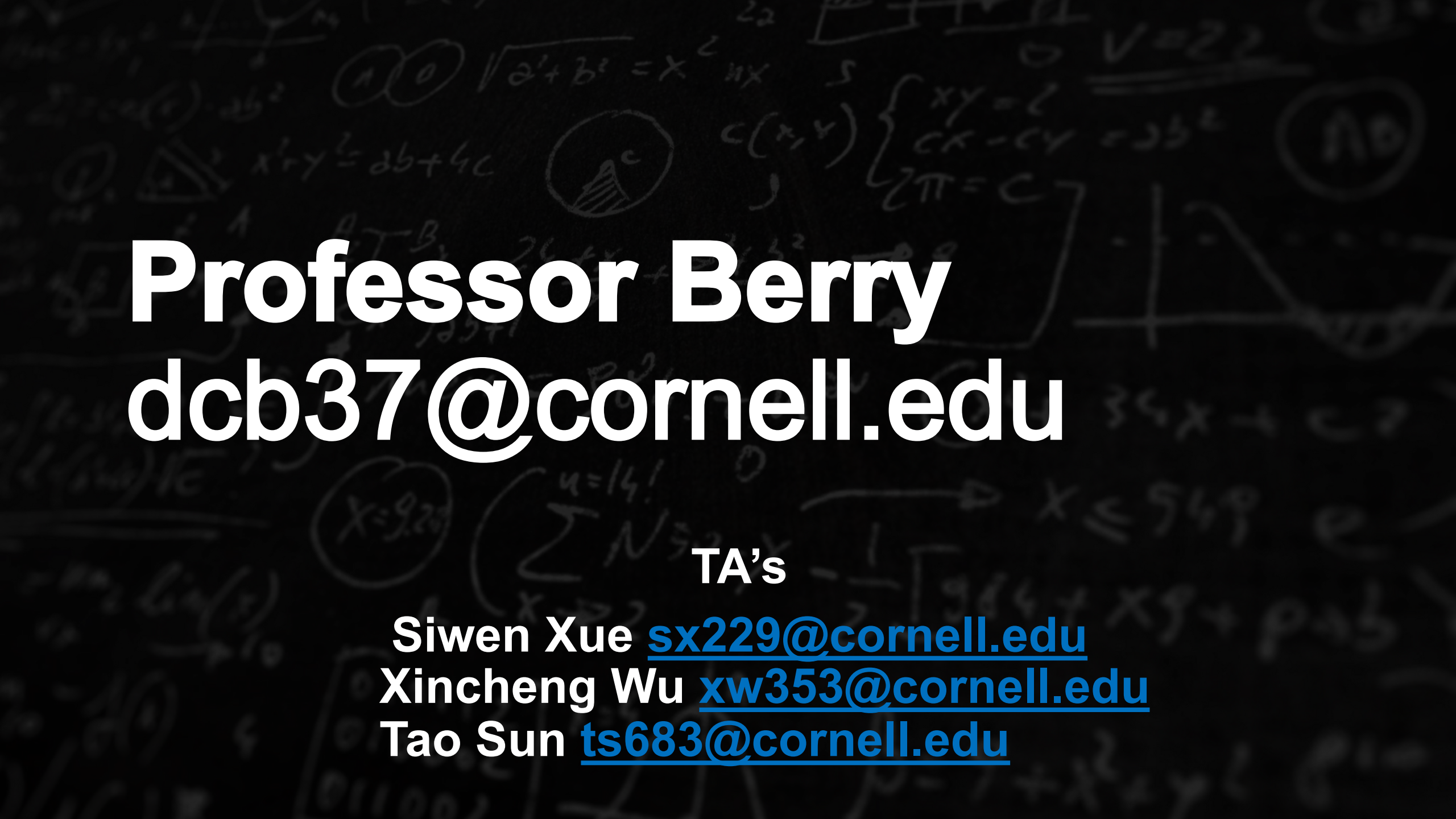


Welcome to NS3150 Obesity and the regulation of body weight



Professor Berry
dcb37@cornell.edu

TA's

Siwen Xue sx229@cornell.edu
Xincheng Wu xw353@cornell.edu
Tao Sun ts683@cornell.edu

Please email
ns3150cornell@gmail.com

No set office hours:

This is to provide flexibility to meet with EVERYONE. If you have questions or concerns, please email to set up a meeting with a TA!

The Goal of NS3150

To provide you with the ability to knowledgably discuss obesity and its associated co-morbidities with family, friends, and strangers! Because we all know someone who suffers from obesity or a related metabolic disease.

Moreover, we aim to understand best practices for weight management to sustain metabolic fitness.

Jan 23	**Intro (Berry)**
Jan 25	What and how we talk about obesity (Berry)
Jan 30	Thermodynamics (Berry)
Feb 1	Energy regulation (TA-Siwen Xue)
Feb 6	Energy metabolism (Berry)
Feb 8	The Environment (Berry)
Feb 13	Genes (Berry)
Feb 15	Taste-gut-brain mechanisms (Berry)
Feb 20	Regulating body weight (Levitsky)
Feb 22	Food Choice/structure (Sobal)
Feb 27	No Class-February break
Feb 29	Review
March 5	**Prelim 1**
March 7	Adipose tissue (Berry)
March 12	Adipose Stem Cells (Berry)
March 14	Adipokines (Berry)
March 19	Adipose tissue inflammation (Berry)
March 21	Insulin resistance and type 2 diabetes (Berry)
March 26	Trace minerals-insulin and adipose responses (Aydemir)
March 28	Co-morbidities (Berry)
April 2	No Class-Spring Break
April 4	No Class-Spring Break
April 9	Thermogenic adipose tissue (Berry)
April 11	Gastric bypass and metabolic consequences (TA)
April 16	Covid-19 and metabolic disease (TA)
April 18	Gut microbiota (Poole)
April 23	Review
April 25	**Prelim 2**
April 30	Diets (Berry)
May 2	Health Disparities (Figueroa)
May 7	Obesity therapies-is it possible? (Berry)

Lectures

- All lectures will be recorded and posted to canvas via zoom
- NO ZOOM OPTION
- Class is lecture and discussion based. To increase active learning and engagement.
- Guest lectures-–to provide areas of expertise!
- Each class you will have the opportunity to participate in class discussions to earn an **extra ¼ (.25) point** towards Prelim 1. Then resets for Prelim 2. No matter how many times you talk or how comprehensive your response is you will only receive the ¼ credit/class.
- Attendance is optional

Assignments

- 4 assignments, must do 3 of them.
- No more than 3 questions per assignment
- Formatted in the style of exam questions
- The answers will be graded for participation not for correctness
- 10% of finale grade
- Answers will be posted in Canvas
- 2- Assignments for each prelim:
- Prelim 1 assignments due: Feb 13 and 29
- Prelim 2 assignments due: March 21 and April 16

Prelims

- 2 Exams (March 5rd and April 25th)
- 30% of overall grade (each)
- 3 Free response comprehensive questions
- 25 short answer/multiple choice/true-false
- In-person during class time
- Bring Cornell ID to verify
- No makeups
- On Canvas
- Please bring a charged computer or tablet

Key to success

- **DO NOT MEMORIZE—there are too many concepts and terms--your mind will hurt**
  - **You cannot memorize an argument for or against a hypothesis—you might want to learn the hypothesis then find pros and cons!**
- **Learning the material is the best way**
- **All exam questions will emanate from the slides but will require you to think about a position and describe the terms in the context of a medical question or physiological problem.**
- **Actively participating in class discussion will foster learning and develop the key concepts.**
- **Listen!**

Project

- Write a scientific proposal on any topic we will cover in class.
- 30% of final grade
- This will be a group project!
- Teams of two students will investigate any topic we have covered in class and develop a detailed scientific proposal about the significance of the topic and why it is a major health problem. Followed by the future research and clinical direction.

Project: The details

Proposal sections:

- Significance:
  - Scientific background and why is this a major health problem
  - Critical barrier in the field
- Perspective
  - The future direction of research
  - Potential for clinical outlook/application

Project: Key dates

- Feb. 22: Submit a team contract and plan (form will be posted in Canvas) that outlines your project topic, the role of each team member, and your expectations for team behavior (i.e. communication, meeting times, handling conflict).
- April 15: A topic draft of the proposal: Should contain the Significant problem and potential research and clinical directions
- May (TBD) Final Exam Schedule: Proposal due: No extensions will be given.

Project: The template

- The template will be uploaded to Canvas
- Project Formatting:
  - Four pages (limit)
  - 1.5 lines spaced
  - 0.75 margins (left-right; top-bottom)
  - Justify text
  - Arial; Georgia; or Times New Roman Font
  - 12 Font size (no larger and no smaller)
  - Header contains (last, first name and Cornell NetID)
  - Footer contains page number

Project

Reference Page: (not counted in the six pages) Use APA Citation Formatting

Within Text example:

(Author's last name, First/Middle initial, Date).

MUST HAVE 10 SOURCES!

Reference sheet Example:

Cunningham SA, Kramer MR, Narayan KM. Incidence of childhood obesity in the United States. N Engl J Med. 2014;370(5):403-11. doi: 10.1056/NEJMoa1309753. PubMed PMID: 24476431.

Project: The rubric

- Is the obesity or obesity-related public health problem clearly defined?
- Is the background sufficient to understand the problem?
- Is the research direction clearly delineated, and is the rational, and potential clinical benefit identified?

Questions?

What and how we talk about obesity

Sharing!
only share what you feel comfortable with

What and how we talk about obesity

Obesity is an emotionally charged topic! Be sensitive and considerate to other's opinions

A Mindset Problem:

- Your friend Bob has obesity and is trying to lose weight (30 pounds), he has been successful at losing a few pounds but has been become frustrated with the daunting process of losing the full 30 pounds.

Is Bob

A) In of need of more persistence and dedication to lose all the weight

B) Influenced by uncontrolled factors contributing to the stalled weight loss

Or should Bob be satisfied with just the few pounds?

Does this label Bob as a failure because he did not reach his goal?

What might you say to Bob to frame his mindset for weight loss?