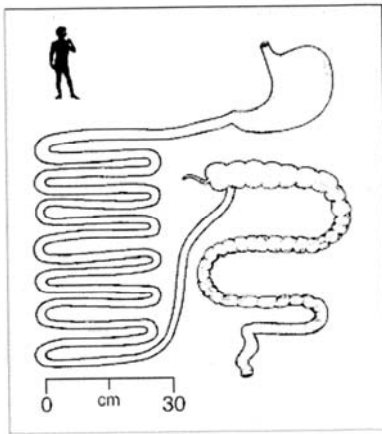
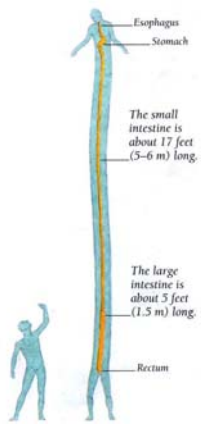


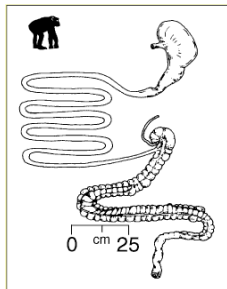
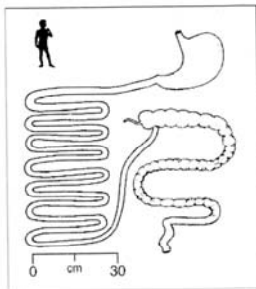
What I will lecture about:

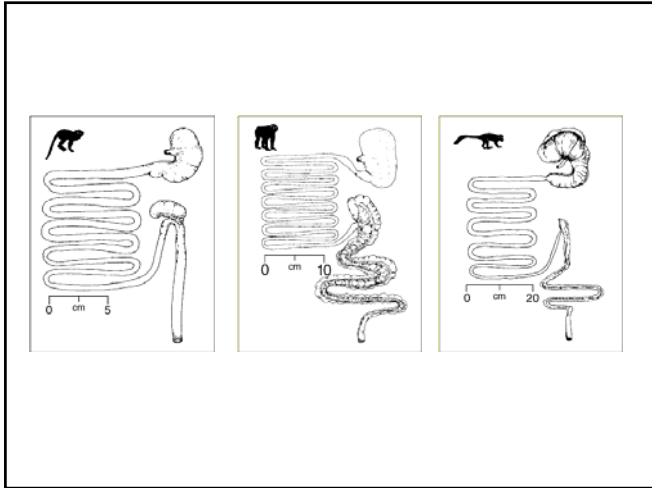
- Guts and digestion
- Energy metabolism
- Obesity in common marmosets
- Lactation and milk composition

GUTS









Hindgut versus foregut fermentation

- Acid digestion versus fermentation
- Absorption of easily digested components versus of fermentation products
- Quantity of food
- Protein
- Fiber

What is fiber?

- Long chain polysaccharides that have a type of carbon bonds that make them resistant to vertebrate digestive enzymes
- Plant cell wall material
- Indigestible material that is routinely ingested
- Roughage
- What is measured by a fiber assay

Food Intake and Digestion

Types of trials

- Palatability
- Intake
- *Digestion*
- Balance



- Total collection of uneaten food and feces



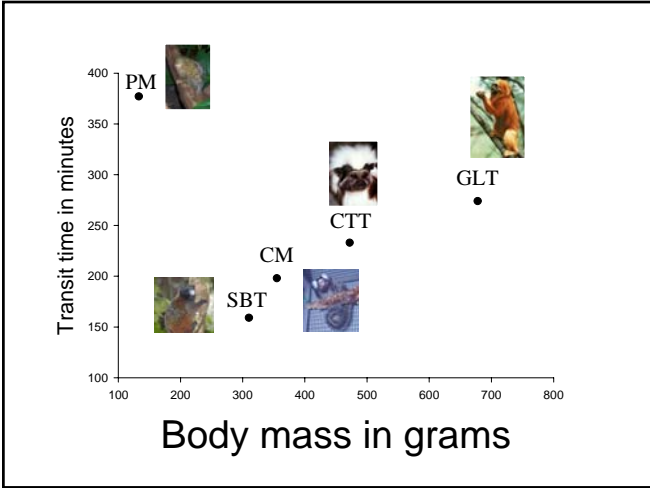
- Dry matter, energy, and nitrogen assays
- ADMD, ADE, and ADCP



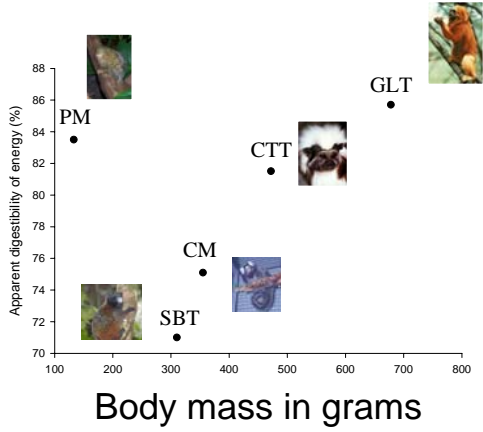




Passage rate of digesta



Digestibility



marmosets feed extensively on gums



Gum as food

- Plentiful, yet hard to get
- Beta-linked polysaccharide – presumed difficult to digest
- Source of energy and minerals



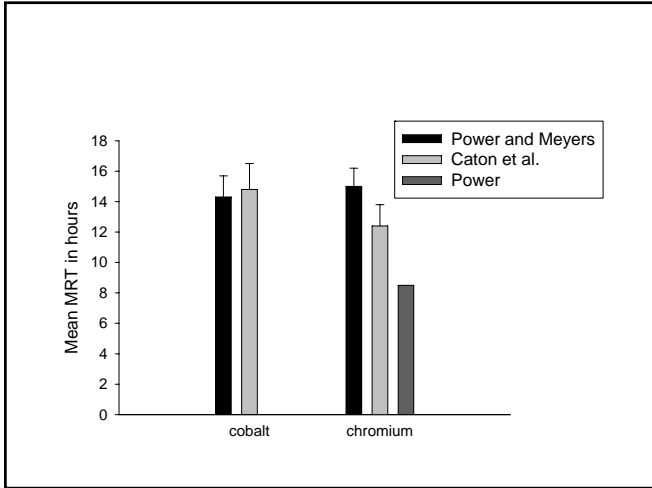
Fruit as food

- Dispersed in space and time
- Potential source of many nutrients
- Contain both easily digested and indigestible components
(seeds)

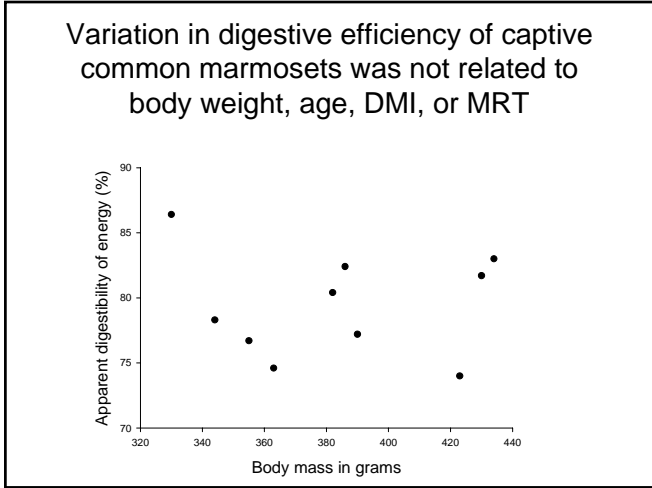
How to eat fruits and gums...

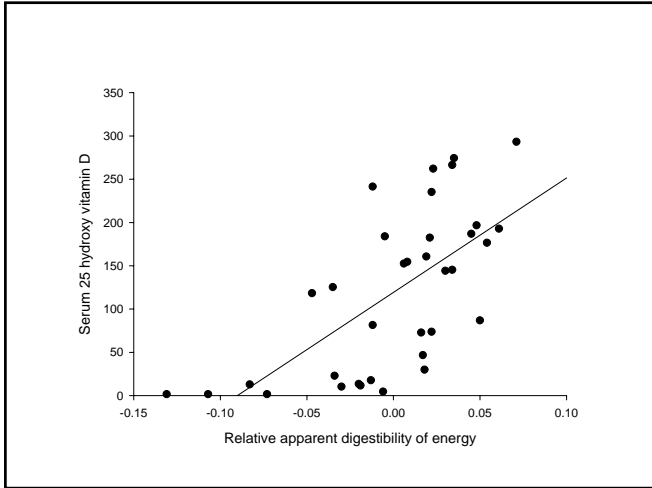
- Fruit strategy: pass seeds through quickly
- Gum strategy: retain within the cecum/colon for fermentation

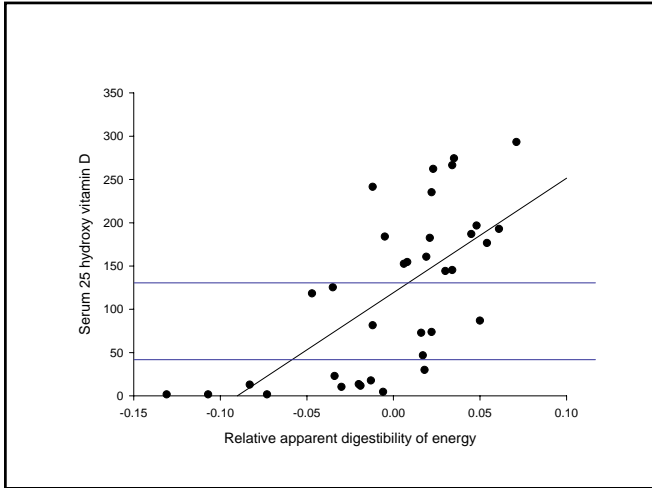
- Cecal-colonic separation mechanism??

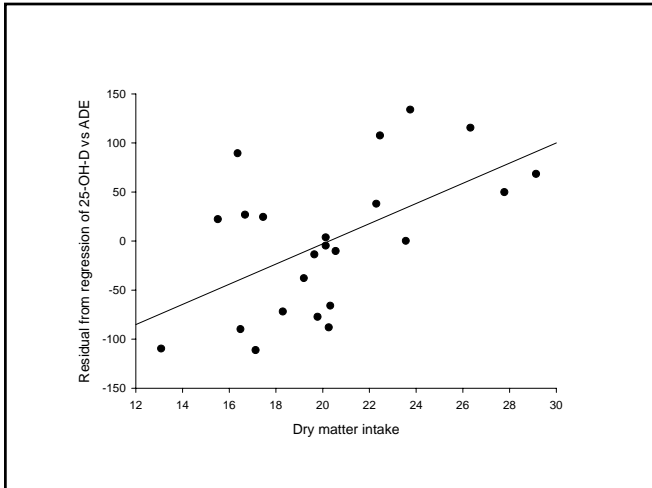


Digestion and 25-OH vitamin D in common marmosets









Metabolic bone disease



