Fats & Fatty Acids
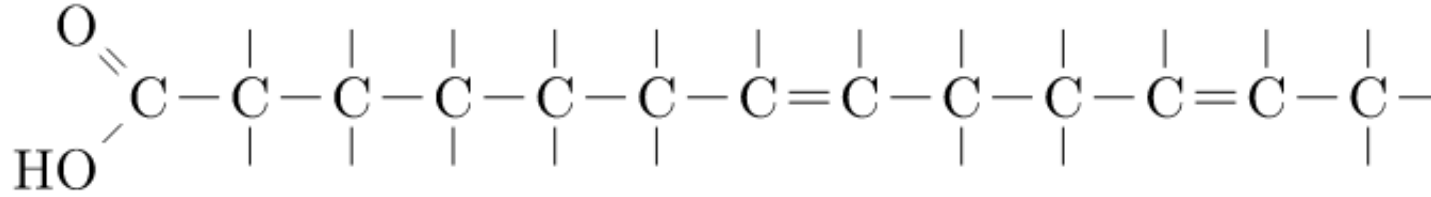
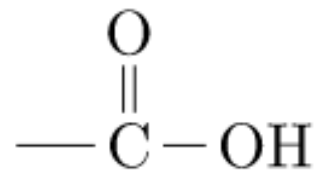# Fat Functions in Cells

- Long term energy storage
- Can burn for short term energy (9 Cal / gram)
- Build cell components
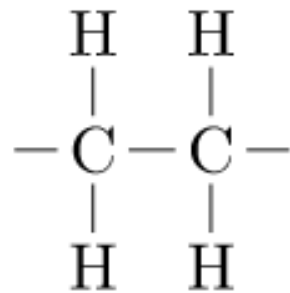 - Cell membranes / cell walls
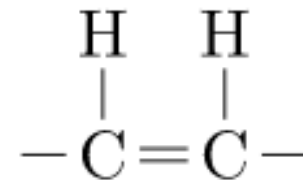 - Complex biomolecules such as hormones
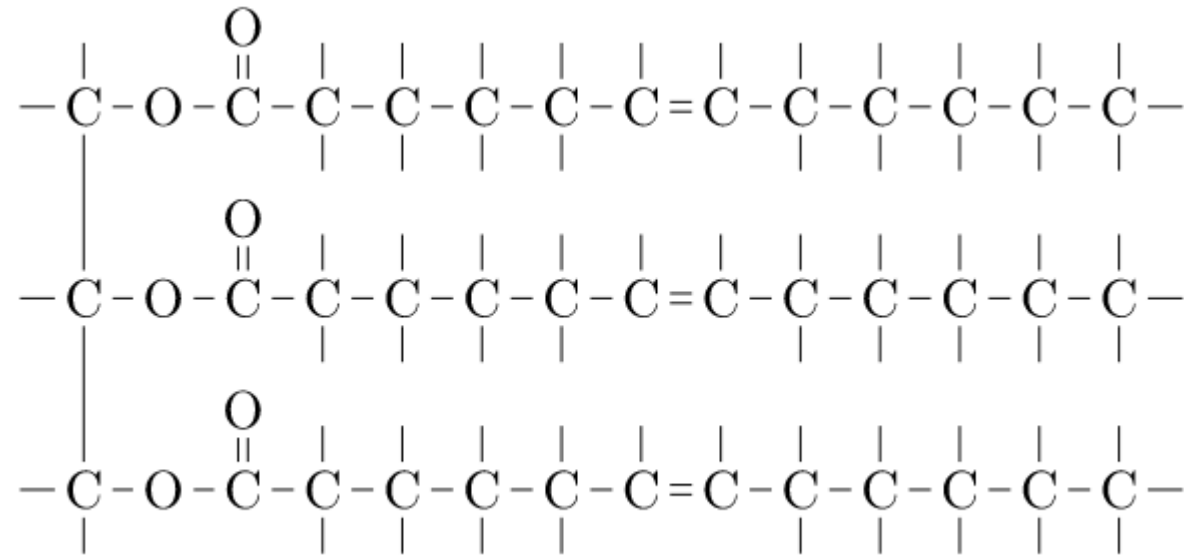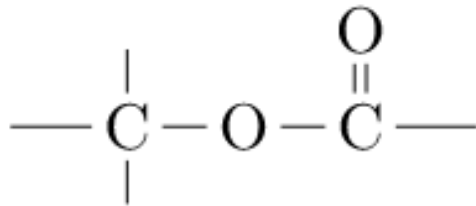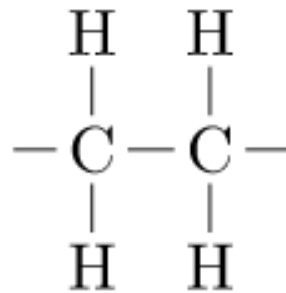
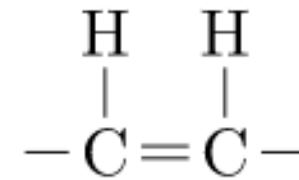# Fatty Acid Functional Groups

Carboxylic Acid

Alkane

Alkene

Fat Functional Groups

Ester

Alkane

Alkene

Fatty Acid + Alcohol → Fat (ester)

Glycerol

Palmitic Acid x 3

Fat molecule
(Ester molecule)

Saturated

► Has no C=C in the carbon chain

Unsaturated

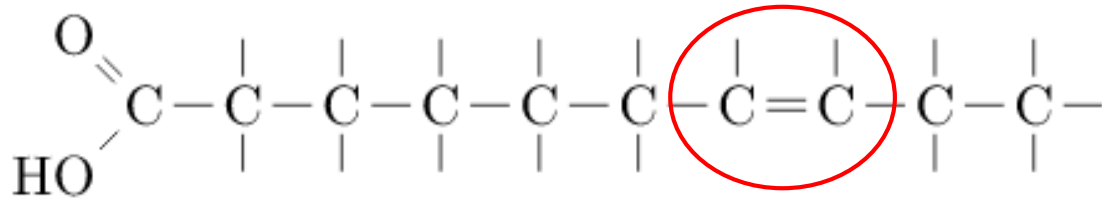▶ Has one or more C=C in the carbon chain

▶ Monounsaturated:

exactly one C=C bond in carbon chain(s)

▶ Polyunsaturated

two or more C=C bonds in carbon chain(s)