**Protein Structure**

**Identify the 20 amino acids that occur in proteins.**

* amino acid structure: side chains, functional groups
	+ general structure
	+ hydrophobic
	+ polar
	+ charged
	+ net charge of polypeptide (calc. 4.1)
* four levels of protein structure
	+ primary
	+ secondary
	+ tertiary
	+ protein folding
	+ quaternary

**Explain how misfolded proteins cause disease.**

* possible fates of misfolded proteins

**Describe the techniques for purifying and analyzing proteins.**

* chromatography
	+ size (size exclusion)
	+ charge (ion exchange)
	+ specific binding behavior (affinity)

