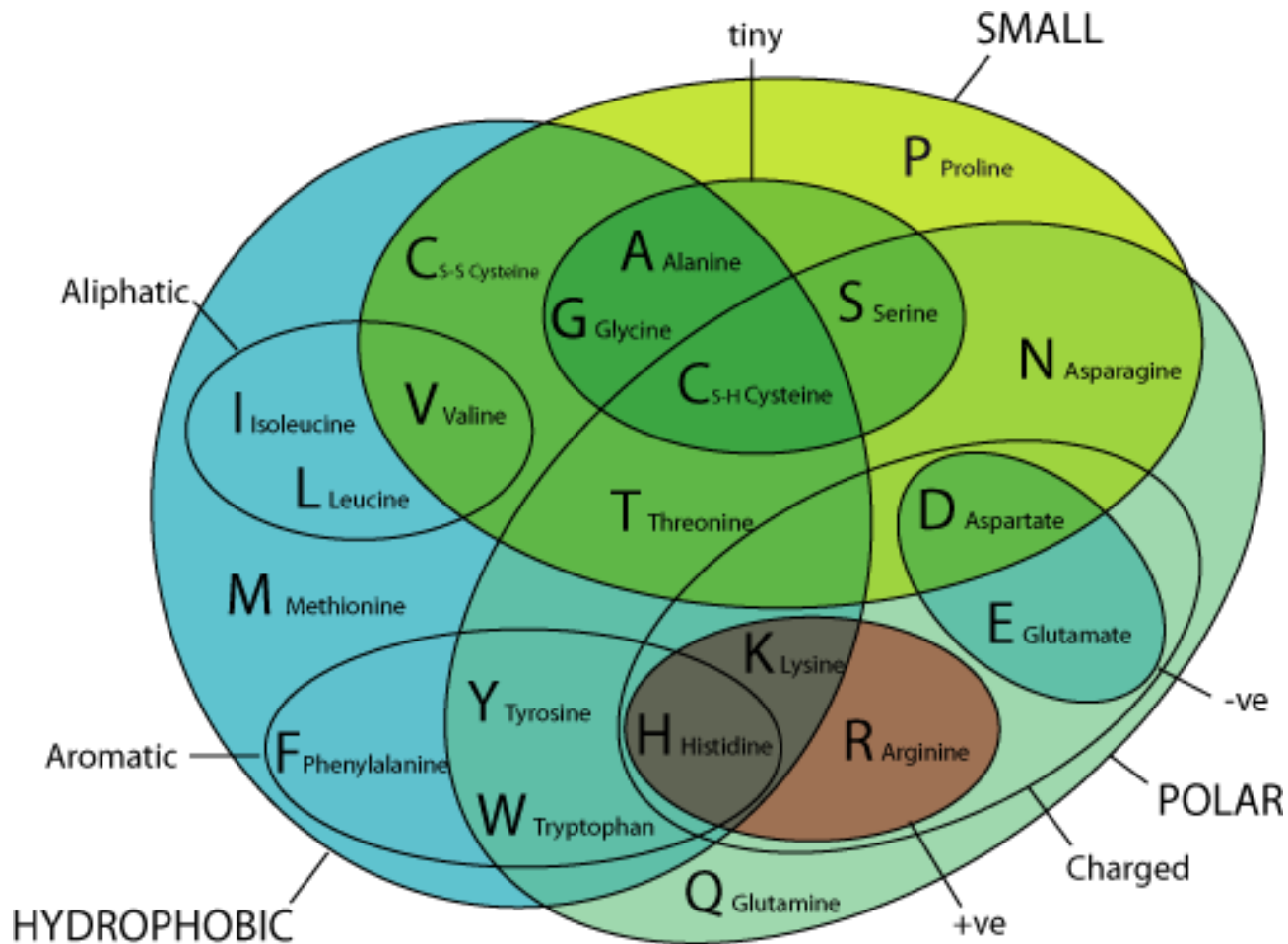


# For Quiz 1-2 (Jan 20), you need to know the amino acids:

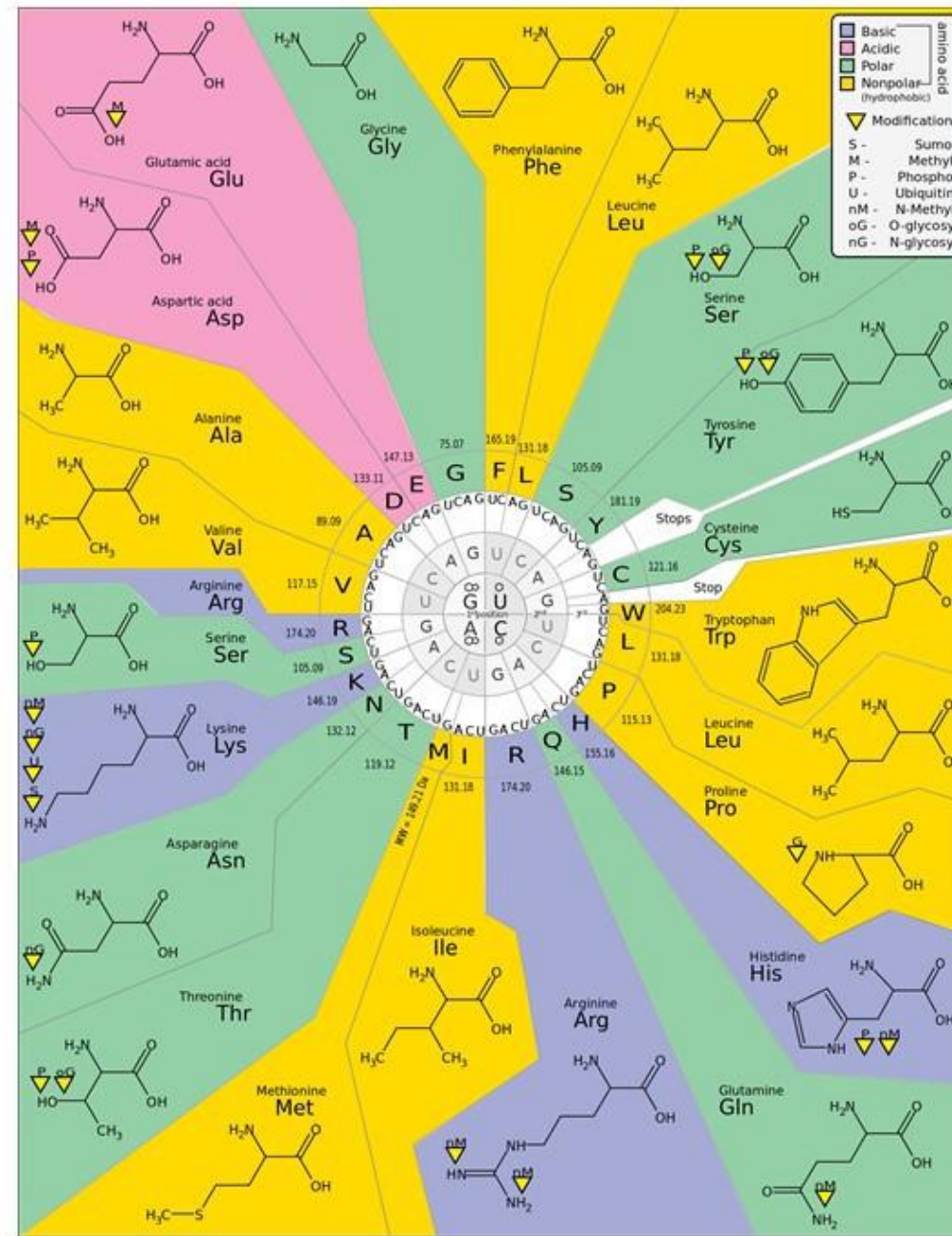


- Full name
- 3- and 1-letter abbreviation
- Physicochemical properties relative to the other amino acids:
  - Size, hydrophobicity, polarity
  - Is the amino acid charged (+ or -) or not?
- If comparing two amino acids, what are their shared and differing properties

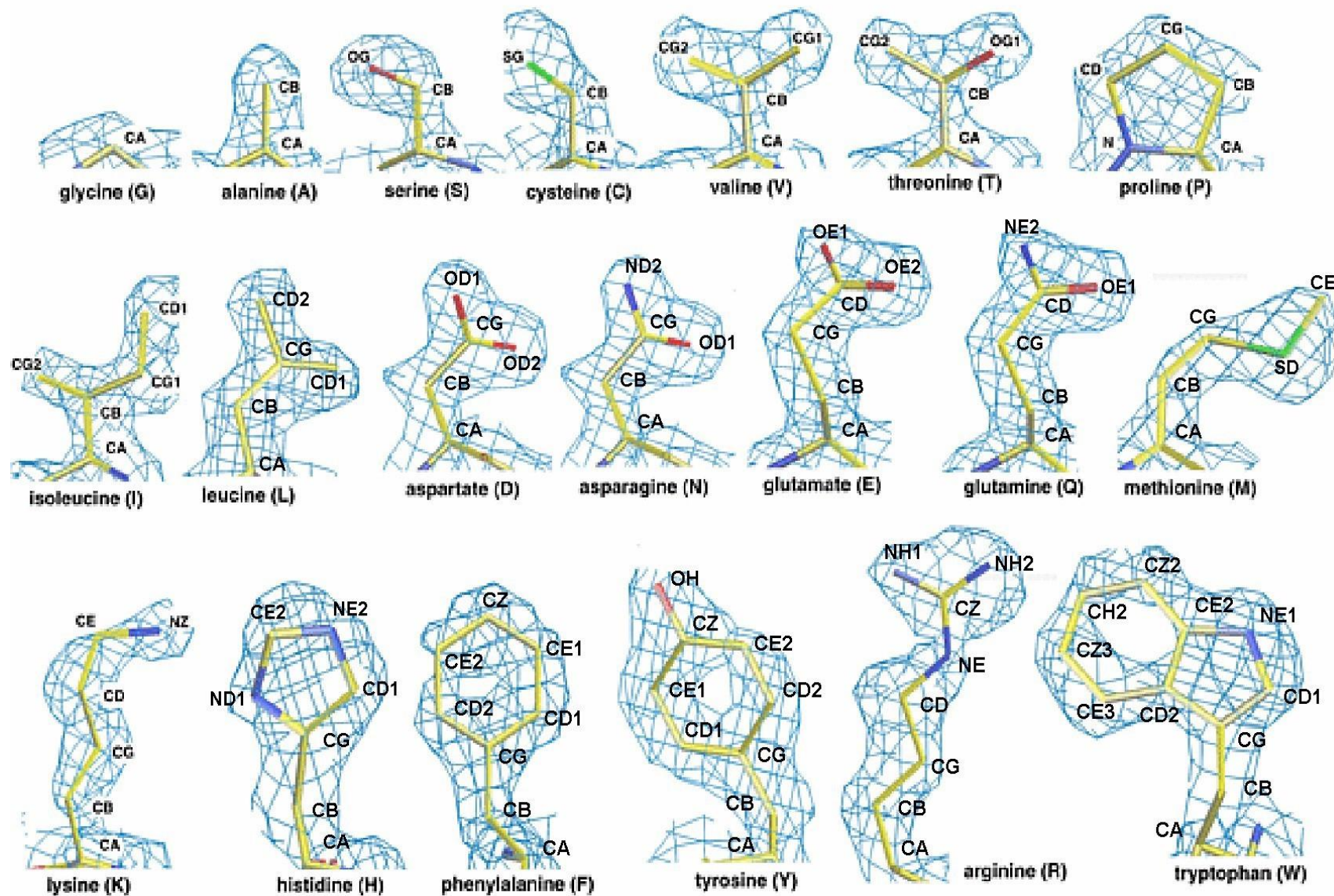
See the next 3 slides and page 76 in the textbook.

# The bioinformatics alphabet

## The amino acids...



# Relative size



# Relative hydrophobicity

Amino acid	R	K	N	D	E	Q	H	P	Y	W	S	T	G	A	M	C	F	L	V	I
Kyte & Doolittle Hydrophobicity Scale	-4.5	-3.9	-3.5	-3.5	-3.5	-3.5	-3.2	-1.6	-1.3	-0.9	-0.8	-0.7	-0.4	+1.8	+1.9	+2.5	+2.8	+3.8	+4.2	+4.5
Categorical value	1	2	3	3	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Physicochemical Meaning																				