

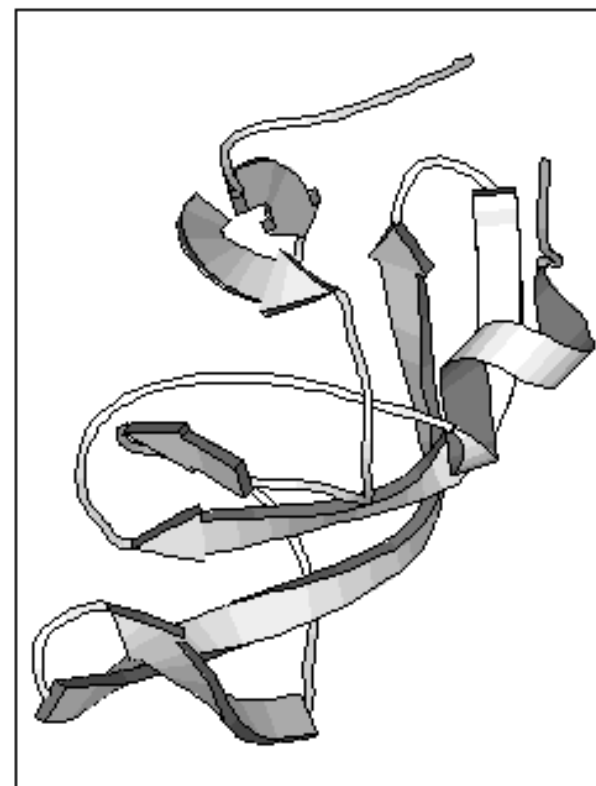
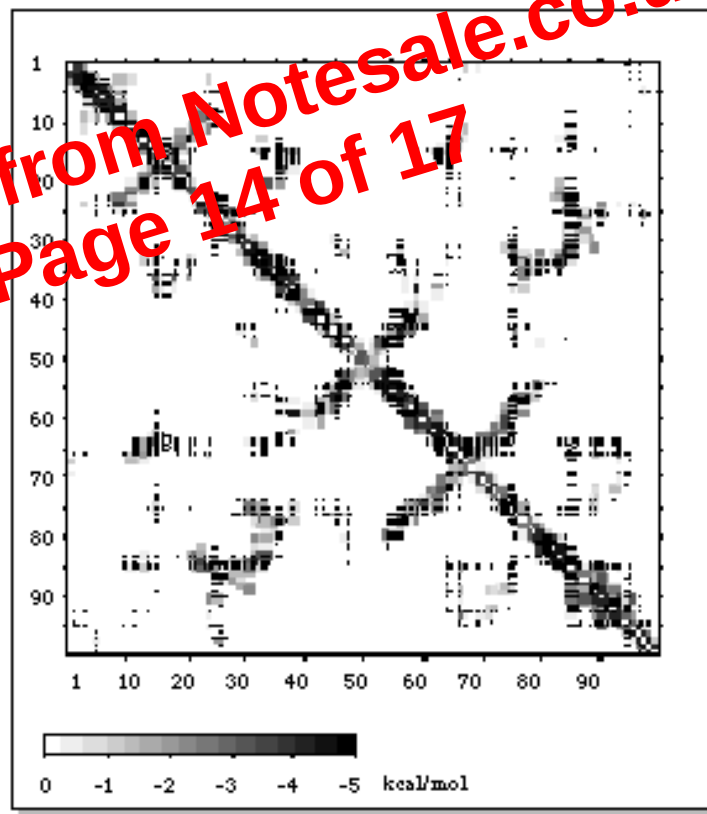
Protein Architecture

- proteins are polymers consisting of amino acids linked by *peptide bonds*
- each amino acid consists of
 - a central carbon atom (alpha-carbon)
 - an amino group, NH_2
 - a carboxyl group, COOH
 - a side chain
- differences in side chains distinguish different amino acids

Prediction in 1D, 2D and 3D

P	PP P	128	110
Q	QQQY	175	97
I	PFQVI	70	E 60
T	SSIIVR	77	E 69
L	LLSTL	120	E 14
W	WWQED	238	E 81
Q	RKQAK	169	E 97
R	RRRPQ	200	62
P	PPPPP	24	49
L	VVTKF	E 71	E 8
V	VVLII	E 1	E 8
T	TTKK	E 24	E 69
I	AALIV	E 0	E 0
K	HYKKF	E 90	E 73
I	IILVI	4	E 0
G	EENG	46	41
G	GGGTG	62	53
Q	QKKRR	68	71
L	PPLWW	E 118	E 59
K	VVFKV	E 31	E 73
E	EESKK	E 124	E 95
A	VVGLG	E 1	E 0
L	LLILL	E 29	E 0
L	LLLIV	E 24	E 0
D	DDDDD	49	E 58
T	TTTTT	72	51
G	GGGGG	62	30
A	AAAAA	17	0
D	DDDDD	102	79
D	DDAKE	69	58
T	SSTTV	1	69
V	IIVIV	E 14	E 0
L	VVIVL	E 0	E 0

predicted secondary structure and solvent accessibility



known secondary structure (E = beta strand) and solvent accessibility