

PEPTIDE CHEMISTRY SERVICES

(B) Peptide analytical projects and characterization

Methods	<ul style="list-style-type: none">- MALDI-TOF and electrospray MS- MS sequence analysis- HPLC: reverse phase, ion exchange, microbore, nano-HPLC- capillary electrophoresis- Edman sequence analysis
Projects	<ul style="list-style-type: none">- quantitative determination of peptides in biological matrices (e.g. blood, urine etc.)- structure determination of native and synthetic peptides and proteins
SAR peptides	Design and chemical synthesis of peptide array to investigate structure-activity relationships. Systematically varied peptide analogs are synthesized, e.g. alanine scans, D-amino acid scans, disulfide scans, charge scans. Depending on the amount and purity required, a number of analogs ranging from 10 to 250 substances is possible.
Stability	The chemical stability of dry peptides, peptide solutions and formulations is evaluated by suitable HPLC and mass-spectral methods. Kinetics and by-products are investigated, and peptides and their by-products are quantitated dependent on time, solvent, pH and temperature.
Solubility	Solubility of peptides is determined in a broad range of solvents.
Quality control	Peptides of different origin (synthetic, native, recombinant) are comprehensively analyzed regarding structural integrity and homogeneity (methods see above).