

# Comprehensive Peptide Solutions

For over a decade, Aragen has delivered specialized peptide discovery and development solutions through our integrated peptide platform—PeptAR<sub>x</sub>. It takes you seamlessly from concept to clinic. PeptAR<sub>x</sub> is powered by a 130+ member peptide team, including 90 chemists and 40 analysts, and strengthened by in-house biology teams. With unmatched speed and reliability, PeptAR<sub>x</sub> accelerates peptide discovery and development, synthesizing nearly 400 peptides, ranging from milligram to multigram scale every month to help you meet timelines without compromise.



## Chemistry Expertise

- Metal catalyzed or metal free late-stage modification of peptides.
- Protein synthesis (> 150AA) in gram scale
- Linear, branched, cyclic and stapled peptides
- 40-50 AA, mg to gm, Peptide libraries
- Solid, liquid, hybrid, TAG-assisted, native chemical/KAHA ligation
- C- & N-terminal, cyclization, backbone modifications, late-stage functionalization, and conjugation reactions
- Non-GMP scale-up
- Purification and characterization

## Biology Expertise

- Peptide mapping/ fingerprinting
- Plasma protein binding using Rapid Equilibrium Dialysis or Ultrafiltration
- Stability in buffer, simulated gastric fluids, liver, kidney, intestinal S9, hepatocytes or plasma
- Half-life, metabolite identification and profiling
- Pharmacokinetics and Quantitative bioanalysis: rat, mouse, dog, rabbit
- Mass/ QTOF spectrometry analysis

## Track Record of Success

- Library development: linear/cyclic peptides, 2-20 mg, up to 20mer, >90% purity
- Successful synthesis of challenging peptide moieties
- Hydrophobic peptides with disruptors (dmb, hmb protected amino acids / pseudoproline, chaotropic agents)
- Cyclic peptides (S-S bridging, cyclization, stapling, RCM, thioether)
- Process optimization and non-GMP scale-up to multi-gm scale (>500g, 98% pure, single impurity <0.5%)
- Modified interleukin protein synthesis (>150 amino acid, >10g scale) using ligation techniques (NCL/KAHA)
- Long chain peptides and folding

## World Class Infrastructure

- Microwave assisted peptide synthesizer- Liberty blue
- CEM-multiprep-2 parallel peptide synthesizer
- Parallel automated synthesizer with online UV- Symphony X
- Automated scale-up peptide synthesizer- Sonata
- Up to 10 L reactors for scale-up
- Lyophilization at scale (Tree and tray lyophilizers)



## Analytical Capabilities

- Peptide characterization by UV, LCMS, HRMS and NMR
- Purification by RP Preparative HPLC (2000 to 80000 Da)
- Up to 100mm dia DAC column for scale-up purification
- Quality control of all custom peptides and peptide libraries

