

PEPTIDE CHEMISTRY

The US-based peptide leadership and Shanghai-based peptide production teams excel in combining design and production efforts to drive projects forward based on client specified design goals and timelines.

SERVICES

US-BASED PEPTIDE OFFERING

- Peptide design
- Lead optimization
- Client consultation on project scoping
- Feasibility study
- Process development and scale-up

SCIENTIFIC EXPERIENCE

- 2 Biotage Syro II parallel peptide synthesizers to enable small and large library syntheses
- Macrocycles and macrocycle libraries
- Multiple disulfide bridged peptides
- Hydrocarbon bridge “stapled” peptides
- 1,2,3-Triazole cyclic or bridged peptides
- Novel linker synthesis and novel peptide backbone modifications

SHANGHAI-BASED PEPTIDE OFFERING

- Peptide synthesis scale: up to 10g
- Unnatural amino acid building blocks synthesis scale: up to 20g
- MW range: up to 100 amino acids
- Purity: 85 % – 99 % as requested
- Salt exchange
- QC: LCMS (identity) and RP-HPLC (purity)
- Peptide, water, salt content per request

- Unnatural amino acid building blocks and peptoid synthesis
- Labeled peptides
- Peptide conjugates
- Cyclic peptides
- Peptide libraries
- Native chemical ligation for small protein synthesis

Drug substance impurities isolation and characterization for late stage clients

Peptide design, synthesis, method development and transfer

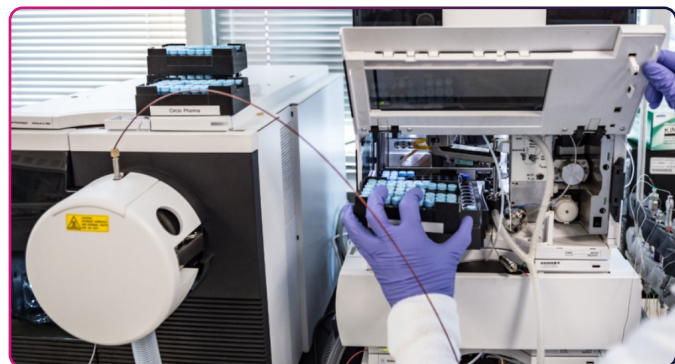
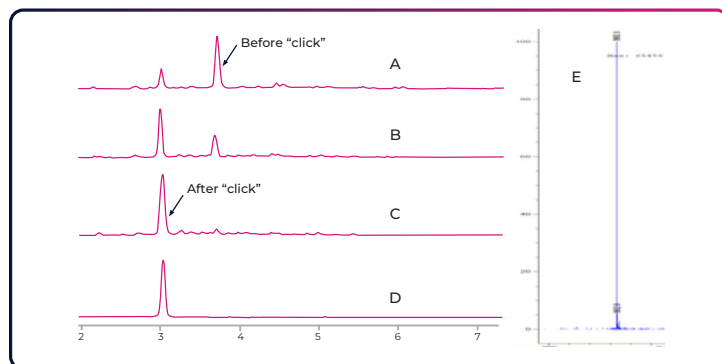
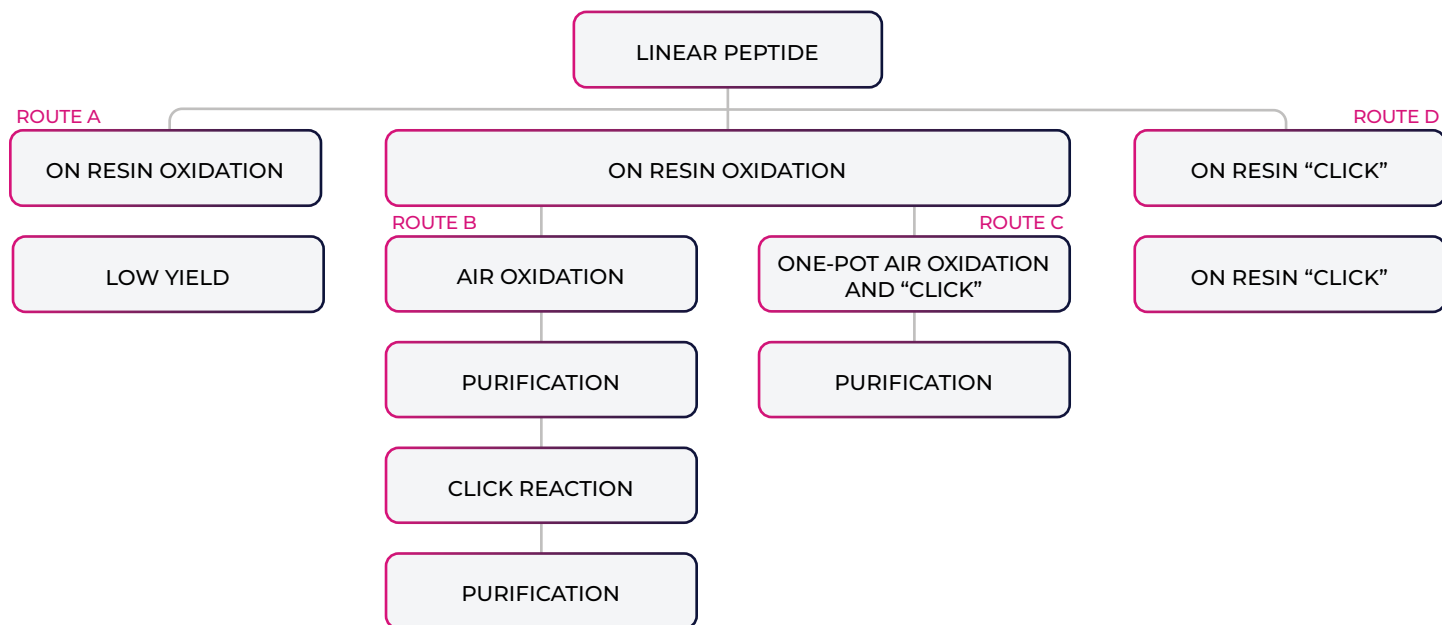
**PEPTIDE CHEMISTRY
LEADERSHIP AND
CONTRIBUTIONS**

Support clients to advance projects for big pharma collaboration and out licensing

Synthesis feasibility assessments to enable small start-up clients to gain funding

A NOVEL ONE-POT SYNTHESIS STRATEGY FOR BICYCLIC PEPTIDE ASSEMBLY

Bicyclic peptides exhibit improved stability, higher potency, and bioavailability and are considered a novel therapeutic class.



	MULTI-STEP	ONE-POT STRATEGY
Synthesis Scale (mmole)	0.2	0.2
Final Peptide Purity (%)	97.0%	97.9%
Overall Yield (%)	19.0%	30.0%
Production Time (days)	13	8

SYNTHESIS PROCESS OPTIMIZATION

The overall yield for the one-pot reaction was increased by 10%, and the production time was at least one week shorter than the multi-step synthesis.

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