

mRNA Display

- Revolutionizing Drug Discovery

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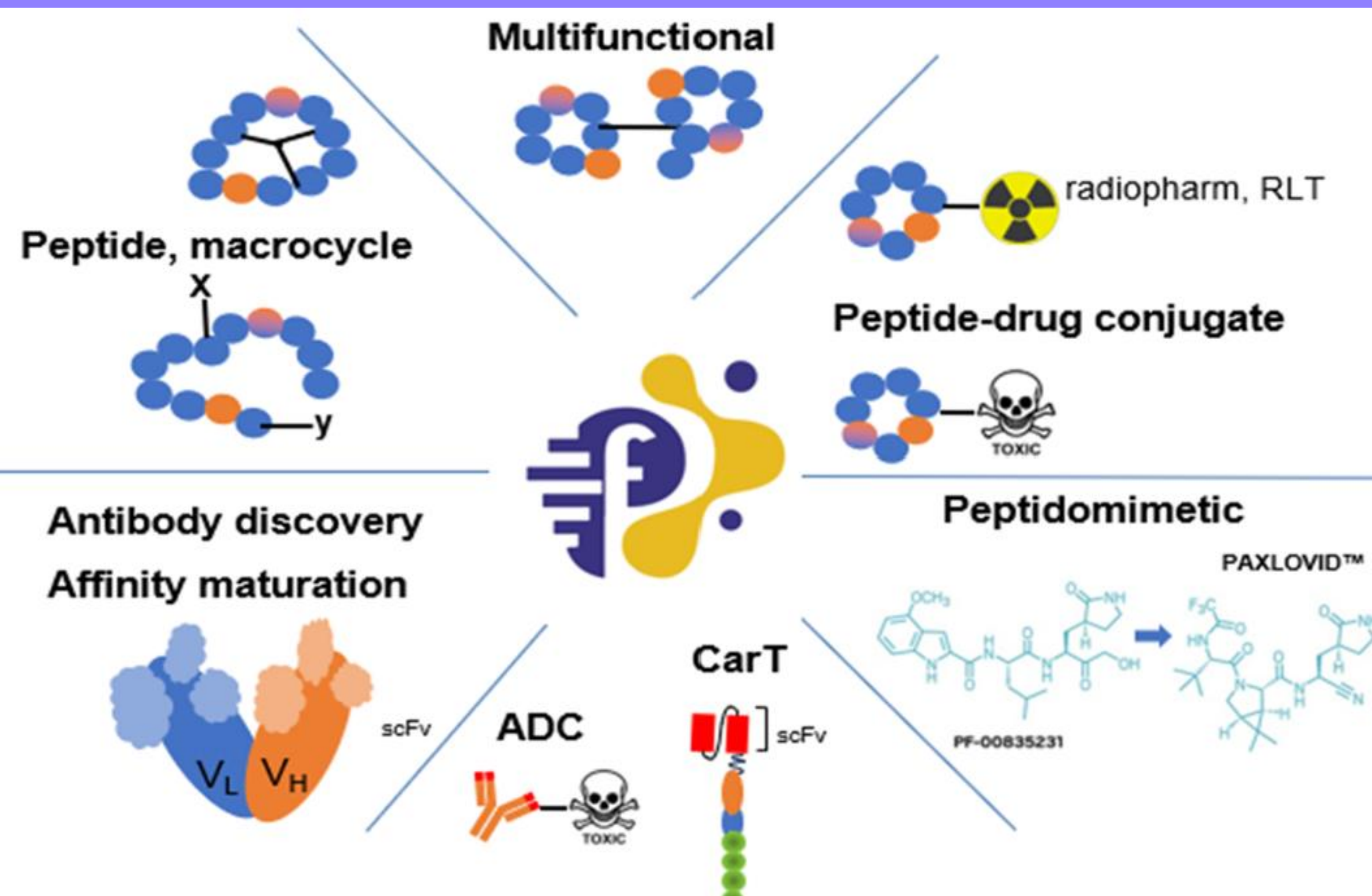


PeptiFinder
BIOTECH

mRNA Display Introduction

mRNA display is an ultra-high throughput screening technique integrated with directed evolution, allowing the screening of over trillions of peptide variants for specific functions in a single experiment. A key feature of this technique is the stable genotype-phenotype (covalent) linkage of an mRNA with its encoding peptide or protein enabling the direct amplification and enrichment of mRNA-displayed peptide or protein with desired properties. Compared to other display technologies, such as phage display, mRNA display offers distinct advantages, including ultra-high-diversity libraries, flexible cell-free screening system, and the ability to incorporate noncanonical amino acids. As a result, mRNA display has become the leading method for discovering novel (macrocytic) peptide binders with antibody-like affinity and selectivity, and even potential oral bioavailability.

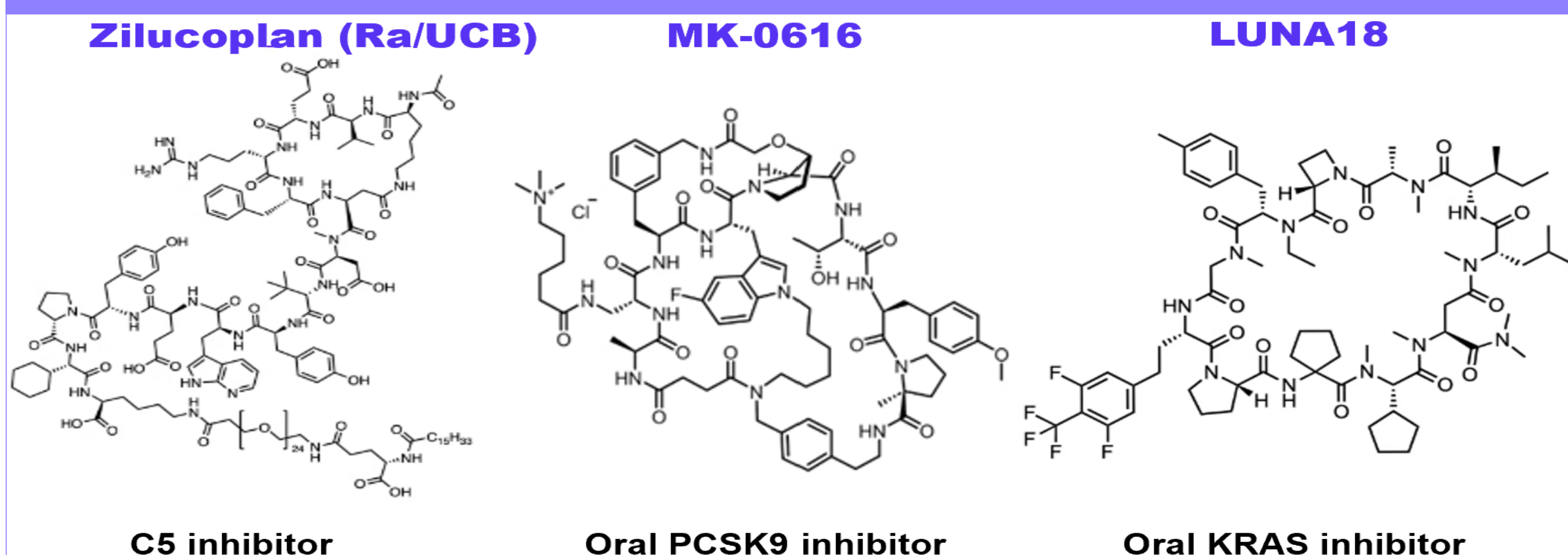
PeptiFinder mRNA Display Applications



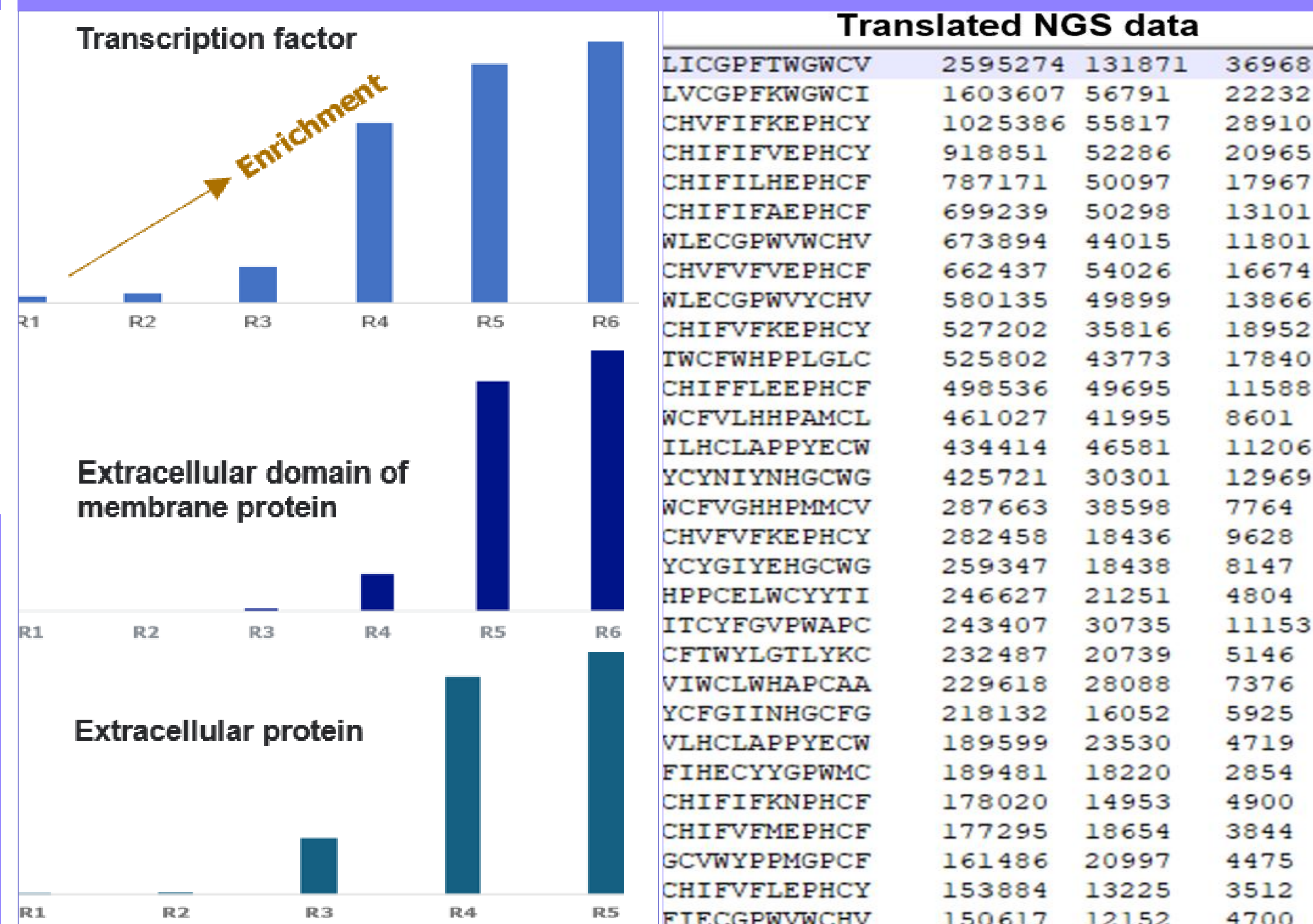
mRNA Display: Best Display Technology

Display Type	mRNA Display	Phage Display	Ribosome Display	Yeast/Cell-surface Display
Library diversity	Ultra high (up to 10^{15})	Up to 10^9	Ultra high (up to $10^{12-10^{15}}$)	Up to 10^9
Cell free	YES	NO	YES	NO
Noncanonical amino acids allowed	YES	NO	Depends	NO
Stable Linkage of phenotype-genotype	YES (most accurate result)	Stability concern	Not as stable	Stability concern
Size of display complex	~4 nm	~900 nm	~26 nm	~5000 nm
Interference from genotype	Least interference Most reliable	High	Low	Highest

mRNA Display Reaches Clinics



PeptiFinder mRNA Display - Case Studies



Summary

- ❖ **PeptiFinder Biotech** is the pioneering company specializing in mRNA display technology.
- ❖ **PeptiFinder mRNA display platform** features ultra-high-diversity peptide libraries (up to 10^{15}), including linear, monocyclic and bicyclic peptides, which can be screened against nearly any biological target of interest rapidly (6-8 weeks) with a remarkable success rate of over 95%. Additionally, unique libraries can be constructed to meet specific requirements.
- ❖ **PeptiFinder mRNA display platform** incorporates unnatural amino acids into macrocyclic peptide libraries, enabling the generation of peptide hits with enhanced physiochemical properties and optimized pharmacokinetics, streamlining the process of H2L and LO, and accelerating drug discovery timelines.
- ❖ For more information, please contact our representatives or visit our website: [PeptiFinder Biotech](http://www.peptifinder.com/)

