## Non-Confidential
## Technology Disclosure

**Title** Enhanced siRNA Delivery for Research and Therapeutics

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**Description** RNA interference (RNAi) is a powerful and highly specific method for silencing or reducing the expression of a target gene, mediated by single- or double-stranded RNA molecules, including small interfering RNAs (siRNAs), microRNAs (miRNAs), small hairpin RNAs (shRNAs), and others. This invention describes novel methods for introducing siRNA molecules into cells both *in vitro* and *in vivo* using delivery peptides or chemical agents.

**Application** Delivery peptides and chemical agents developed by Dr. Rana can be used to efficiently transfect RNA molecules into human cells without the toxic side effects associated with currently used siRNA delivery technology. Currently, the major limitation to therapeutic RNAi technology is delivering the siRNA *in* vivo. This delivery technology can be used in both a laboratory setting to study gene function and as a novel tool for developing therapeutics using RNAi technology based on the ability to administer siRNA *in vivo*.

**Advantage** siRNA delivery into cells is commonly being done with commercially available reagents that can be highly toxic to cells in culture and cannot be used *in vivo* to deliver siRNAs for therapeutic applications. The delivery agents and peptides developed by Dr. Rana work as efficiently as the currently available reagents without toxic side effects and as such can be used as a new approach for siRNA based therapeutics.

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| **Patent Status** | U.S. Patent Pending |
| **Licensing Status** | Research Reagent Field Available to License |
| **Docket** | UMMC 03-68 |
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