



**UNSW**  
SYDNEY



## NanoArmour for Biopharmaceuticals

**NanoArmour is a highly effective way to enhance the stability of fragile drugs without the need for cold storage. This technology can eliminate the need for cold-chain transportation and extend the shelf-life of protein/DNA drugs and vaccines, which will significantly enhance the bioavailability of drugs.**

### Competitive advantage

- Extensive experience in nanotechnology research, design and development of biocompatible, responsive and ultra-stable nanocoatings for biomolecules
- Competitive IP ownership in relevant technology

### Impact

- Enables fragile drugs to be available when cold storage is not accessible, e.g. during war or in third world countries
- Enables fragile drugs to last longer, e.g. ultra-long shelf-life of protein/DNA drugs or vaccines

### Successful outcomes

- Successfully enhanced the stability of more than 50 proteins and DNA therapeutics to heat, UV, chemical and biological stressors.

### Capabilities and facilities

- Experimental facilities to test the structural performance of nanocoating technology
- The ability to protect almost any form of biomolecule
- The ability to be transferred to a biocompatible ionic form (e.g.  $\text{Ca}^{2+}$ ,  $\text{Fe}^{3+}$ ) immediately before administration

### More Information

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