# CHICAGO LIFE SCIENCE SUCCESS



## Joshua N. Leonard, PhD

## Northwestern University

Chemical and Biological Engineering, Robert R. McCormick School of Engineering and Applied Science

#### **AREA(S) OF FOCUS:**

## Developing design-driven therapeutics by integrating systems and synthetic biology

The Leonard lab develops engineering technologies for designing and constructing programmable biological systems that address unmet medical needs.

#### **KEY RESEARCH AREAS:**

#### Mammalian Synthetic Biology

Developing modular platform biotechnologies, computational methods, and conceptual frameworks for designing and building novel, customized, programmable cellular products that enable treatment of diseases including cancer.

#### Systems Immunology

Combining experimentation and computational modeling to understand and guide "decision making" within the immune svstem.

#### **Nanoscale Vesicles**

Engineering extracellular vesicles as novel gene and drug delivery vehicles.

### Extracellular Vesicles in Drug











SYFNFX

**ENTREPRENEURIAL SUCCESS:** 

Syenex's current technology enables bioengineering of enveloped vectors ranging from extracellular vesicles to viral vectors, overcoming current technology barriers to achieve new functions and facilitate biomanufacturing.

catalyze the field of cell and gene therapy.

Syenex enables cell and gene therapy developers to solve their delivery challenges in order to increase feasibility, reduce cost, and ultimately realize promising new therapies to benefit patients.

Raised \$5M in seed funding (2022).

