Institute For Life Science Entrepreneurship

Introduction
Institute for Life Science Entrepreneurship (ILSE)

A gateway for integrating the extraordinary academic, industrial & entrepreneurial life science resources of the NYC/NJ region into a dynamic enterprise

**Goals**

- Facilitate development of early-stage ventures
- Bridge academic and industry R&D
- Advance basic and translational research
- Increase economic development in region
Organization and Programs

Founded 2014, Independent 501(c)(3) non-profit, housed at Kean University, Union, NJ

Develop Entrepreneurs, Build Companies, Advance Translational Research

Life Science Accelerator
- CARB-X Accelerator
- Events
- Micro-seed Funding

Business Incubator
- Physical Lab Space
- Core Lab Network
- Consulting Network

Research Institute
- ATCC Center for Translational Microbiology
- Grants
- Microgenomx
Microgenomx

- Research services
- Support for medical and industrial microbiology, drug-discovery and microbiome related companies to accelerate product development
- >20 clients to date
Microgenomx Capabilities

• **Microbial Genome Sequencing & Annotation**
  – Bacterial, fungal, other eukaryotes, viral

• **Bioinformatic Analysis**
  – Genomic, metagenomic, microbiomic, transcriptomic, epigenomic

• **Preclinical & Clinical Microbiome Impact Studies**
  – Microbiome/metagenome data generation & analysis
  – Cultivation, characterization and repository/database of target organisms
  – Microbiome-based clinical diagnostics

• **Antibiotic Evaluation Studies**
  – MIC, MBC, bactericidal, synergy/antagonism, kill-curve post PAE and persistence studies
  – Biofilm studies
  – Spore preparation and sporicidal assays
  – Resistance studies (spontaneous mutation, serial passage, phenotypic, genotypic and WGS)

• **Custom Services**
  – Custom tagged strains, custom mock communities, anaerobic microbiology, microbiome sample preparation, clinical isolate libraries/databases
### Microgenomx Capabilities

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<th>Microbial Genome Sequencing &amp; Annotation</th>
<th>Preclinical &amp; Clinical Microbiome Impact Studies</th>
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<th>Bioinformatic Analysis</th>
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<td>☐ Broth or Agar Based MIC &amp; MBC Determination</td>
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<th>Custom Services</th>
<th>Resistance Development Studies</th>
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<td>☐ Clinical Isolate Libraries and Databases</td>
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<td>☐ Adhesion/Invasion Assays</td>
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<td>☐ Ex-vivo bacterial seeded tissue assay</td>
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ILSE Consulting Network

• A ILSE Network that provides coordinated consulting services to meet the technical and business needs of affiliates, clients and collaborators of ILSE
• Services Rendered are often at discounted and/or deferred terms
• To supplement ILSE’s capabilities in drug development, it has assembled well known service organizations to provide value added services to its clients and companies
• Services Rendered are coordinated by ILSE
• The spectrum of services vary from early discovery to late stage clinical support
ILSE Incubator: State-of-the-Art Wet Lab Suites

Suite 1 (1,229 sf)
Suite 2 (1,222 sf)
Suite 3 (588 sf)
Suite 4 (628 sf)
Suite 5 (612 sf)

- Each suite has a chemical fume hood, bio hood
- Shared analytical suite (NMR, LC/MS, Flow Cytometer)
- General biology and chemistry lab equipment
ILSE Management Team

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