Proposal

For Establishing a Community Biology Lab in Saint Louis, MO

Introduction

I am planning to create a biology lab in Saint Louis, MO to have a space where I may pursue my own work with peers, and subsidize the expense by allowing others to use the equipment in exchange for a market competitive monthly fee. Because conversations surrounding this idea have led to interest in others investing, I am preparing this proposal for what this initiative may look like at (2) additional levels of initial investment.

This project is conceived from a personal struggle with existing limitations in the research ecosystem. Its primary aim is to alleviate these challenges and promote the democratization of scientific research. It presents a unique opportunity for both budding and seasoned researchers to collaborate, innovate, and drive breakthroughs in the field of biotechnology.

Overview

This is a community-oriented lab that aims to harness the knowledge and collective abilities of talented individuals who typically lack access to lab facilities. This could be because they specialize in different fields and are looking to work in a multidisciplinary environment, or because they are young, ambitious, and yet to establish their academic credentials. Recognizing the constraints that independent researchers often face, the objective is to provide an accessible, well-equipped, and versatile workspace that enables collaboration and innovation.

Admission to this co-working space will be curated through an application and acceptance process to ensure that a collaborative and productive environment is maintained.

As part of a commitment to democratizing science, the project will establish a series of open research challenges that align with the lab's core focus[1]. Potential members can apply to explore these ideas, presenting an opportunity for subsidized memberships or 'fellowships.' This strategy not only encourages research on key topics but also provides early-career scientists and researchers with limited funding the chance to access lab facilities.

[1] Basic research pertaining to bioelectricity and information processing in biological substrates.

I have envisaged three different scenarios for the establishment of this lab, based on varying initial investments:

Scenario 1: $100,000

This is the default scenario, to be pursued if no other funding opportunities are available. This budget encompasses the acquisition of essential laboratory equipment and a 2,000 sqft workspace lease for 24 months, accommodating up to 5 benches.

- Participant Cost: $2,500/mo.
- Proposed Equipment & Available Assays: Google Sheet
- Market Comparison: CIC Saint Louis ($2,000/mo, currently full)

BUDGET ALLOCATION:*
- Equipment: $50,000
- Workspace Lease (2,000 sqft for 24 months): $24,000 (estimated at $1,000/month)
- Operational Expenses: $12,000 (estimated at $1,000/month)
- Contingency & Unforeseen Costs: $14,000

Scenario 2: $500,000

A budget of $500,000 permits the acquisition of advanced laboratory equipment, a larger, 5,000 sqft space for 24 months, and allows for enhanced experiments at up to 10 benches. A portion of the budget will hire a lab tech to guide less experienced individuals through equipment usage, and additional funds will create dedicated overnight napping rooms for late night shifts, because nobody needs work life balance if you could have a cell culture instead.

- Proposed Equipment & Available Assays: Google Sheet

BUDGET ALLOCATION:*
- Equipment: $200,000
- Workspace Lease (5,000 sqft for 24 months): $120,000 (estimated at $2,500/month)
- Operational Expenses: $50,000 (estimated at $2,083/month)
- Lab Tech(part-time): $40,000
- Consumables & Reagents: $30,000
- Contingency & Unforeseen Costs: $60,000

Scenario 3: $2,500,000

A $2,500,000 budget enables the creation of a comprehensive, state-of-the-art coworking lab. The funds will lease or purchase and refurbish a larger ~30,000 sqft space, purchase top-tier lab equipment, offer comfortable office spaces, meeting rooms, and onsite living accommodations for up to 25 individuals. The budget will also cover the hiring of a dedicated staff team and provide for a well-stocked supply of basic reagents and

consumables. Furthermore, we will have the capacity to form partnerships with local biotech companies or universities and organize networking events and workshops for members.

- Proposed Equipment & Available Assays: Google Sheet
- Example space to acquire and renovate: Euclid School
- Example of a comparable renovation: $100,000 abandoned school into apartments

BUDGET ALLOCATION:*
- Equipment: $500,000
- Space Purchase and Renovation (20,000 sqft): $1,200,000
- Operational Expenses (24 months): $100,000 (estimated at $4,167/month)
- Staff Salaries (Lab Manager, Safety Officer, Lab Technicians): $300,000
- Consumables & Reagents: $100,000
- Partnerships, Networking Events, & Workshops: $100,000
- Contingency & Unforeseen Costs: $200,000

**All budget breakdowns are based on high level assessments and subject to dramatic refinement of costs allocated and scope. Equipment lists have been reviewed by professionals who've established many past labs and approved budgets presented as feasible.*

Revenue Opportunities

Membership Fees: A primary source of revenue will be the monthly fees paid by members for access to the lab facilities. These will be competitive with market rates, but we will also offer tiered pricing models to accommodate researchers at different stages of their careers.

Sponsored Research Agreements: The lab can enter into agreements with external organizations to carry out research projects. These sponsorships will provide a consistent revenue stream and expose our members to a variety of research opportunities.

Intellectual Property (IP) Ownership: The lab will retain partial or complete ownership of IP generated within the facility. This could lead to revenue through licensing deals or the formation of spin-off companies.

Workshops, Seminars, and Training Programs: The lab can host educational events and training programs for members and the public. These may include hands-on workshops, seminars by experts, and professional development courses.

Equipment Usage Fees: For high-end, specialized equipment, an additional usage fee can be imposed. This will help maintain and upgrade the equipment.

This proposal was prepared by Benjamin Anderson.
An earlier version was reviewed and received input from John Schloendorn, Philip Goetz, Heye Groß and Michael Vassar.