

Shared Laboratories:

The Preferred Path for Emerging Biotech

Why are shared labs a better solution? How to select the right one?

Summary

Historically, emerging biotechnology and life science companies have struggled to find suitable solutions that meet their laboratory infrastructure needs. The only viable options required committing to a long-term lease, purchasing expensive lab equipment, and creating back-end lab management expertise. Shared laboratories address each of these historic challenges and are now the preferred option for start-up and emerging biotechs.

This white paper (I) highlights the key benefits of shared labs, (II) details the criteria to select a shared laboratory, and (III) directly compares several shared laboratory and incubator options in the greater Boston / Cambridge area.

Introduction: Why Picking a Lab Decision Is So Critical

Start-up and emerging biotechs serve as the lifeblood for the entire pharma and biotech industry. These essential companies must show rapid scientific progress but do so with limited resources. This is particularly true in today's capital-constrained environment, where hitting key scientific milestones can be the difference between a successful next fundraise and company death.

Along with personnel costs, the most significant cost for emerging biotech is infrastructure – i.e., laboratory and office space, advanced scientific equipment, and associated back-end lab services. Thus, early lab infrastructure decisions can profoundly impact a biotech's trajectory and probability of success.



The Problem for Emerging Biotech

Historically, there has been a poor fit between the lab infrastructure needs of emerging biotech companies and the options available, leading to several challenges:

- **Timeline mismatch:** Typical lab leases require 5+ year commitments. Emerging biotechs are loath to make a commitment for that long because they tend to raise capital based on milestone achievements, roughly every 1-3 years

- **Flexibility mismatch:** Emerging biotechs start off very small – often within only 1-2 scientists – but aim to expand as their science advances. Typical lab leases and sublease force emerging biotechs to rent excess space since it is nearly impossible to flex up their lab once locked into a contractual commitment.
- **Lab build-out:** Emerging biotechs have to build out and customize their own leased or subleased space. This build-out is costly, time consuming, and not core to advancing their science.
- **Equipment is expensive:** Buying (or leasing) lab equipment is expensive and capital inefficient.
- **Equipment is underutilized:** Most emerging biotechs only utilize their equipment periodically, making it inefficient to own or lease directly.
- **Substantial back-end lab services requirements:** Day-to-day lab management requires expertise in an array of back-end systems and support functions. These lab services – while vital – add cost and usually necessitate adding support personnel to the payroll of emerging biotechs. None of these costs directly contribute to an emerging biotech advancing its core science.



During the early 2020s, many emerging biotechs raised huge financing rounds from the venture capital community and elected to spend heavily to rent and build out their own laboratory space. Those days are over. Smart companies today know that a more disciplined, focused approach is to operate within a sophisticated, shared laboratory.

I. Shared Laboratories: The Solution for Emerging Biotech

The shared laboratory model emerged as the preferred solution for early-stage biotechs, particularly in today's more capital-constrained environment. *Why is the shared lab approach the superior option?*

- **Timelines that fit:** Shared labs offer more flexible timelines. Contracts for individual lab benches can be as short as a few months.
- **Flexibility for growth:** Start-ups can begin with only a single lab bench yet have the flexibility to grow into a private lab suite that can accommodate 20+ lab members.
- **Speed:** Within a shared lab, companies can get up and running in days, saving time and conserving cash.
- **Provision of equipment:** Lab equipment such as flow cytometers, HPLCs, autoclaves, centrifuges, PCR equipment, cell counters, biosafety cabinets, fume hoods, microscopy, cold storage, and more is provided by the shared lab company. This dramatically reduces the cash outlay for emerging biotechs. Utilizing shared lab equipment works well, as most equipment is used only periodically. The best shared labs meticulously maintain and calibrate their own equipment.
- **Provision of back-end lab services:** Shared laboratories offer a host of back-end services, including regulatory / permitting, lab safety, equipment maintenance and

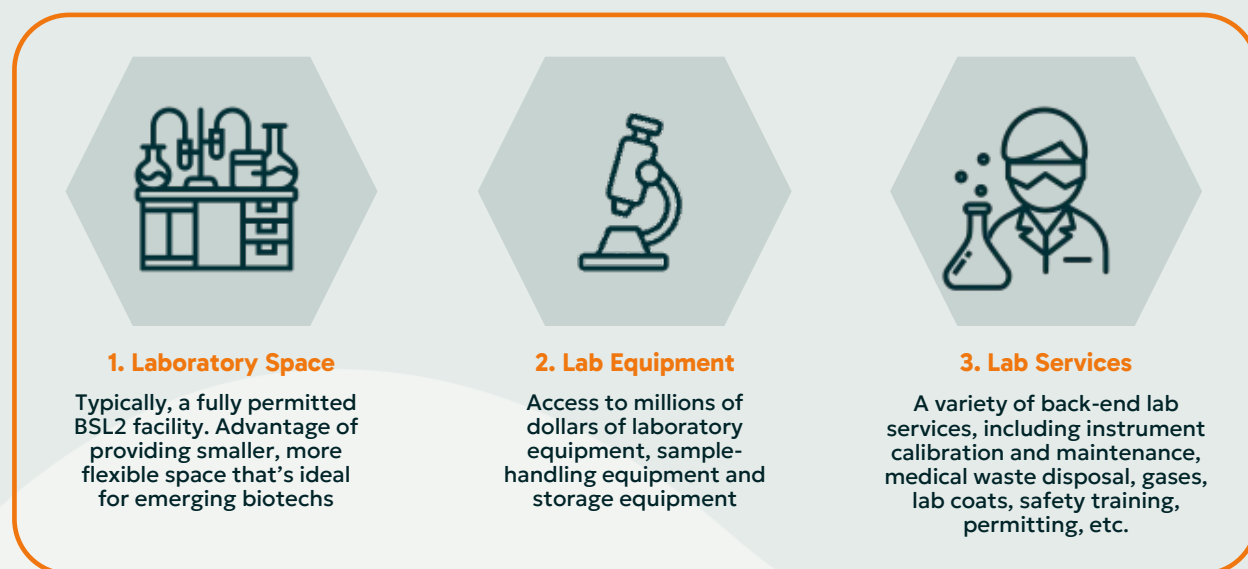
calibration, lab purchasing systems, medical waste removal, laboratory gases, lab coat cleaning, and more. This frees emerging biotechs to focus on their core mission of advancing their science. Shared labs also eliminate the need for emerging biotechs to hire a lab manager, saving on non-core personnel cost.

- **Community:** The best shared labs craft a vibrant, creative environment. Scientists are not isolated like they might be in rented lab space; instead, they are able to socialize and feel part of a true community of like-minded scientists and entrepreneurs.

Shared Laboratories: Much More Than “Lab Space”

High-quality shared laboratories offer much more than just “space”. Shared labs provide everything necessary for emerging biotechs to perform their science.

Three elements combine to form the core value proposition for shared labs:



The monthly fee charged by shared labs includes all three components – space, equipment, and lab services – bundled into a single price. By packaging together all three, shared lab operators create a simple and transparent solution for their emerging biotech customers.

By contrast, traditional lab leases and subleases only account for the lab space component. The laboratory rent typically does not include lab equipment or lab services or utilities, all of which the emerging biotech must pay for on its own.

Cost Comparison: Lease / Sublease vs. Shared Laboratory

To understand the true cost of operating a lab, we've created an analysis that compares (A) the total cost for a laboratory sublease, including rent, equipment and lab services, and (B) the total cost for a shared laboratory.

	Cost Comparison for Emerging Biotechs	
	10-15 Person	2-4 Person
	Biotech	Biotech
1. Lab Space: Sublease Rent Expense		
Square footage (1)	6,500	2,000
Rent per sq. ft. + taxes + utilities	\$105	\$105
Monthly rent expense (2)	\$56,875	\$17,500
2. Laboratory Equipment Expense		
Lab Equipment (total price)	\$792,400	\$510,800
Monthly cost of 3-year equipment lease (3)	\$24,212	\$15,608
3. Laboratory Services Expense		
Monthly cost of lab services and personnel	\$49,438	\$22,475
Total Sublease Expense:		
Total Monthly Cost for Sublease	\$130,525	\$55,583
Total Annual Cost for Sublease	\$1,566,297	\$666,993
Total Shared Laboratory Expense:		
Total Monthly Cost for Shared Laboratory	\$47,500	\$12,500
Total Annual Cost for Shared Laboratory	\$570,000	\$150,000

(1) Finding attractive sublease space of less than 10k sq. ft. tends to be quite challenging
 (2) This analysis assumes no build-out costs, which is the best-case scenario
 (3) Includes modest financing cost of 7% per year on equipment lease

The above analysis shows that the total cost of leasing / subleasing is substantially more expensive for emerging biotechs than a shared laboratory option. Note that the “lab space” / rent component – in isolation – appears to be comparable to the cost of shared lab space. However, including the cost of lab equipment and lab services (and taxes and utilities) makes it clear that shared laboratories offer far superior value.



While the first component – lab rent – is the most visible, our analysis shows that, for the typical 10-15-person emerging biotech, lab rent only accounts for 44% of the total cost to operate a laboratory. The other two components – lab equipment and lab services – account for 56% of the total costs. The contrast is even more striking for 2-4 person biotechs: lab rent accounts for only 32% of the total costs, while equipment and lab services account for nearly 68% of the total cost. (See the Appendix for additional details on this analysis.)

In short, this analysis shows that shared labs are the superior option for almost all emerging biotechs with fewer than 25 employees and who've raised less than \$120 million in capital.

The Fallacy of “Dollars Per Square Foot”

Labs are often compared by the same simple metric: “What’s my dollars per square foot?”

However, for shared labs, “dollars per square foot” is a deeply deceiving metric.

First, the lab space reserved exclusively for your company – whether a single bench, a group of benches, or a private suite – represents only a tiny fraction of the space to which your team has access. High-quality shared labs offer unfettered access to entire shared rooms dedicated to tissue culture, chemistry, bacteria / viral work, and microscopy. Shared labs also provide office and open desk seating, conference rooms space, kitchens, and more.

Second, lab equipment and lab services are not included in a leases’ “dollars per square foot”. Subleases are tempting because the monthly rent seems to be cheaper on a “dollar per square foot” basis. But what emerging biotechs need is a fully functioning laboratory to advance their science. Lab rent only accounts for 40%-55% of the total cost.

In short, lab equipment and lab services are the “hidden costs” you hadn’t thought about!

Shared Laboratories: The Right Option in Today’s Market

Finally, the value proposition of shared laboratories is particularly compelling in today’s more cost-conscious environment. The venture capital community seems to agree:

Question: “What’s one piece of advice you’d offer to biotech CEOs today?”

Answer: “I’m telling every company: Don’t build cathedrals! Be nimble and flexible, both with your space and with hiring. That’s the way forward in this environment.”

- *Camille Samuels, a leading biotech-focused VC at Venrock, Jan. ’24*

II. How to Select a Shared Laboratory

Shared laboratories have become the preferred option for emerging biotechs. Within the greater Boston and Cambridge biotech / life science hub, we are fortunate to have a few shared laboratory and incubator options. How is an emerging biotech to choose?

Here are the key criteria to select a shared lab / incubator:

- Overall facility quality: Is the facility conducive to attracting and retaining employees? Is the lab clean and inviting? Is this a place where you feel confident developing your lead drug or therapeutic candidate?
- Location: Is the location easy to get to? Or will employees have to suffer through long commutes in Boston / Cambridge traffic jams? Is there available (and affordable) parking? Is there access to reliable public transportation?
- Scalability: Does the incubator or accelerator “kick you out” after a certain timeframe? Or does it offer a scalable path for growth?
- Quality and breadth of equipment: Does the shared laboratory offer a wide array of high-quality lab equipment? Is the equipment new or used?
- Equipment uptime: Is the equipment calibrated and regularly maintained?
- Quality and breadth of lab services: Does the shared lab take care of medical waste? Does the staff play a helpful role in solving your problems? Is it a true BSL2 (or BSL2+) facility?
- Hidden costs: Is the pricing all-inclusive? Or are you “nickel and dimed” with endless and annoying fees?
- Amenities: Does the shared lab space offer access to convenient amenities such as food options, tech-equipped conference rooms, bike storage, gyms, and more?

Incubators vs. Shared Laboratories

The terms “incubator”, “accelerator”, and “shared laboratories” are often used synonymously; however, there are important differences.

Incubators / accelerators force start-up and emerging biotechs to “apply” and jump through needless hoops. Once accepted, incubators want companies to stay within the incubator only for a brief period of time, typically 12-18 months. At that point, incubators “encourage” – and sometimes force – companies to move elsewhere to make room for a crop of new arrivals. Incubators tend to measure their success by counting the number of companies “spun out”.

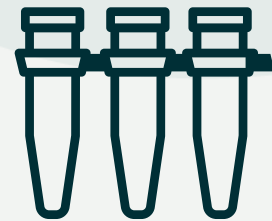
By contrast, shared laboratories offer a flexible and scalable path for growth. Emerging biotechs can continue to operate within a shared lab until their lead program reaches clinical development and beyond. Shared laboratories can scale and serve as a multi-year home, minimizing disruptive moves.

Finally, incubators make money by taking equity stakes in their customers. Paying for lab services using equity might seem look a good deal, but the reality is that early equity is extraordinarily expensive and dilutive to founders. It’s also risky: What happens if the relationship with your incubator – who is now also your investor – deteriorates? Will you *really* feel comfortable having that difficult conversation?

Labshares

The greater Boston and Cambridge area has a rich ecosystem to support start-up and emerging biotech and life science companies. Below is a summary that compares the leading shared labs and incubators along the key dimensions:

	Labshares	LabCentral / biolabs	Cambridge Scientific	Harvard Incubators	ABI-Labs	Nest.bio
Lab Equipment Quality & Breadth	✓✓✓	✓✓✓	✓	✓✓	✓	✓✓
Lab Services Quality & Breadth	✓✓✓	✓✓✓	✓	✓	×	✓✓
Scalability for Growth	✓✓✓	×	✓	×	✓✓	✓
Transparent Pricing	✓✓✓	×	✓✓	×	✓	✓✓
Amenities	✓✓✓	✓✓✓	×	✓	✓✓	✓
Type	Shared Lab	Incubator	Shared Lab	Incubator	Shared Lab	Incubator
Convenient Location	✓✓✓	✓✓	✓✓	✓	×	✓
Free Parking	✓✓✓	×	✓✓	×	✓✓✓	×
Price	✓✓	×	✓✓✓	✓	✓✓✓	✓



III. The Labshares Difference

How does Labshares differentiate itself among shared lab and incubator options?

First, we operate in the “Goldilocks zone” of greater Boston biotech: We’re only a short drive from downtown Boston and Kendall Square and offer a far easier commute and abundant free parking compared to other shared lab spaces. No more wasted time in traffic jams or paying through your teeth just to park! We’re also close to public transportation and have available on-site bike storage.

Second, we are committed to helping you succeed and grow here at Labshares. Unlike incubators, we don’t make you wade through an annoying application and then kick you out after 12-18 months. We are scalable, providing a clear pathway to grow within our flexible lab space. Our customers often start by licensing 1-2 lab benches. As they succeed, they expand into a small private lab suite, and then ultimately graduate into a large private lab suite. Labshares’ scalable model minimizes downtime and eliminates disruptive re-locations.

Third, we don’t surprise our customers with hidden “one-time” fees or equipment usage fees. Unlike some of our competitors, Labshares’ pricing is all-inclusive and highly transparent.

Fourth, we purchase new, cutting-edge scientific equipment which we meticulously maintain. Our equipment has historically had 99%+ uptime. This allows our customers to focus on the science without having to worry about re-calibrating and fixing equipment.

Fifth, our staff has deep scientific expertise and specializes in helping you to solve your scientific problems. Our entire aim is to help you get up and running quickly and to help you meet your milestones.

Finally, Labshares fosters a connected and caring community. It’s a place where our members feel engaged and energized. We host a variety of social events, lunch and learns, and other programs that help to make Labshares feel like a true home.

Labshares: It’s science, streamlined.



Labshares

**Science Streamlined:
Step In, Scale Up**



Pictured above: Labshares’ clean and open laboratory, offering a wide array of world-class lab equipment and services

Appendix

Below are additional details on the total cost of lab equipment and lab services for emerging biotechs (this analysis focuses on emerging biotechs with 10-15 employees):

Laboratory Equipment Expense	Cost	Qty	TOTAL
BSCS	\$10,000	4	\$40,000
Incubators	\$10,000	6	\$60,000
Full Fridge	\$9,000	2	\$18,000
Full -20	\$12,000	2	\$24,000
Full -80	\$20,000	2	\$40,000
LN2 Tank	\$8,000	1	\$8,000
Table Centrifuge	\$20,000	1	\$20,000
Inverted Microscope	\$8,000	1	\$8,000
Waterbath	\$1,800	3	\$5,400
Plate Reader	\$70,000	1	\$70,000
QPCR	\$65,000	1	\$65,000
Cell counter	\$4,000	1	\$4,000
Autoclave	\$16,000	1	\$16,000
Flow cytometer	\$200,000	1	\$200,000
Florescent microscope	\$90,000	1	\$90,000
Ice machine	\$8,000	1	\$8,000
Glass washer & RO rinse	\$16,000	1	\$16,000
Pure water system	\$9,000	1	\$9,000
Analytical balance	\$10,000	1	\$10,000
Flam storage cabinet	\$2,000	2	\$4,000
Nanodrop	\$12,000	1	\$12,000
plate washer	\$35,000	1	\$35,000
Security System/Cameras	\$20,000	1	\$20,000
Internet/router/firewall/Wifi	\$10,000	1	\$10,000
TOTAL			\$792,400
Monthly Cost Assuming Lease @ ~5%			\$24,212

*Equipment list doesn't include electrophoresis, gel doc or ultra centrifugation

Total Lab Services Expense	Fee Type	Annual Costs	Monthly Costs
Equipment & CO2 Monitoring	Annual	\$20,000	\$1,667
Fire Dept Permit	Annual	\$100	\$8
MWRA Permit	Annual	\$100	\$8
Purchasing System Fee / Upkeep	Annual	\$5,000	\$417
Security Badges	Annual	\$250	\$21
CO2 and LN2	Monthly		\$150
Dry Ice	Monthly		\$150
Equip Calibration & Certification	Monthly		\$2,000
Equipment consumables**	Monthly		\$1,000
Gas/delivery/maintenance	Monthly		\$1,200
Internet/ISP	Monthly		\$500
Janitorial Services	Monthly		\$3,500
IT Security/Support	Monthly		\$3,000
Lab Coats	Monthly		\$200
Lab Consumables**	Monthly		\$1,000
Maintenance Contracts	Monthly		\$5,000
Parking (\$500 pp)	Monthly		\$5,600
Pest Control	Monthly		\$100
pH Monitoring	Monthly		\$2,000
Pipette Tip Recycling (\$1000/mo)	Monthly		\$1,000
Printers, Ink, Paper	Monthly		\$250
Safety Partners/EHS Services	Monthly		\$500
Snacks/coffee & Concessions	Monthly		\$1,000
Trash Disposal	Monthly		\$1,000
Medical Waste	Monthly		\$1,500
Hazardous Waste	Monthly		\$300
TOTAL, pre-personnel			\$32,771
Lab Manager w/ benefits / bonus	Annual	\$ 200,000	\$16,667
Lab Services Expense per Month			\$49,438

**Equipment consumables for flow cytometer, distilled water, filters, soap, etc. Lab consumables include bleach, alcohol, paper towels, etc.