



2023

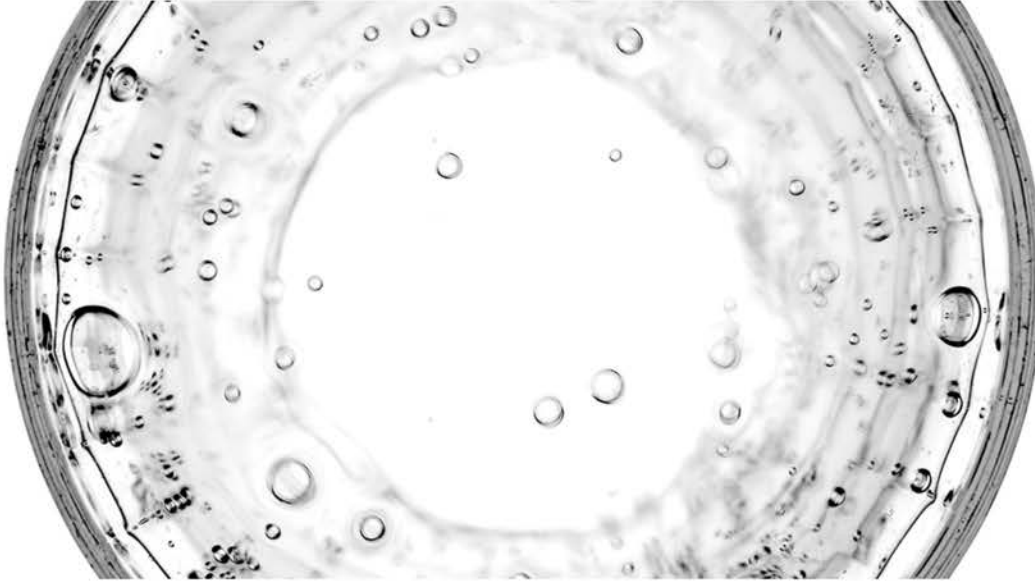
USD Discovery District: Mapping the Growth Potential

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Acknowledgements



The University of South Dakota Discovery District

Vision

Capitalize on the economic growth potential of university research, faculty, and student expertise and support the growth of private sector research and companies.

Mission

To foster economic development by:

- Growing university research capacity, resources, and talent
- Connecting these core university strengths with private sector resources and companies
- Fostering entrepreneurship and commercialization
- Facilitating the creation of the physical infrastructure necessary to support creation and attraction of research and innovation-based businesses

Special thanks to the USD Discovery District for sponsoring this market study. In addition, thank you to all stakeholders involved in contributing insights and support.

This report is dedicated to those that believe in the innovation of science through intentional discovery - much like the luminaries such as Dr. Frances Kathleen Oldham Kelsey.



Dr. Frances O. Kelsey receives the President's Award for Distinguished Federal Civilian Service from President John F. Kennedy, 1962

Source: National Library of Medicine, Images from the History of Medicine

About the Study

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In March 2023, University of South Dakota Discovery District commissioned Thel Consulting to conduct a study of research parks and the bioscience industry. Specifically, the objective of this study is to identify emerging trends and create tenant profiles for the new 50,000 sq ft facility in Sioux Falls, South Dakota. This study explores a specific sample of primary research and intensive secondary research.

Study Findings

- In 2021 and 2022, early-stage life science companies in the US secured an average of \$2 million in pre-seed and seed funding.
- As of May 2023, the cumulative seed round raise stands at \$167 million - significantly lower than the \$575 million raised in the previous two years.
- Over \$14B of series A funding was raised in 2021 for US biotech and life science companies. In contrast, \$3B has been raised in 2023 YTD.
- There are 133 active Phase 1 and Phase 2 clinical trials in South Dakota with a majority sponsored by industry.
- Merck Sharp & Dohme LLC is the leading sponsor of clinical trials in South Dakota with 22 current studies across Phase 1 through 4.
- Research parks generally have more office space (60%) than lab space (40%).
- University core facilities are the most commonly offered service from Research Parks to tenants.



1

Key Findings

1.

Long-term outlook for the biotech industry remains positive.

The industry appears to have recovered from the COVID-19 pandemic. For the short term, as long as we witness ongoing development of new treatments for diverse diseases, the industry is poised to continue its ascent. On the other hand, if the innovation momentum slows down, a decline will be inevitable.

2.

Start-ups enter a challenging environment when raising pre-seed and seed financing in 2023.

While we may anticipate similar peaks in private financing, our prediction suggests that early funding rounds will not reach the levels seen in 2021 and 2022.

3.

Tenants need access to skilled workforce and capital.

Every year, South Dakota graduates thousands of skilled talent from the university system in relevant industries. However, the state remains desolate in private financing and it appears that local investors do not prioritize funding for biotech and life science commercialization. With an increase interest from the investor community, more opportunities will be available to retain talent in South Dakota.

4.

Prospective tenants deserve specific messaging.

There is not a one size fits all strategy. This distinction is relevant to prospective tenants as they will demonstrate different, unique needs for resources, facilities, and community.

2

Major Trend Analysis

2.1 Public Capital Markets

The S&P Biotech ETF (\$XBI) is an exchange-traded fund that tracks the performance of the S&P Biotechnology Select Industry Index. The index is composed of 150 of the largest publicly traded biotechnology companies in the United States and Canada.

Since reaching its ultimate peak at \$167.51 on February 1, 2021, the index has been heading south.

We can attribute this decline to several factors including concerns about rising interest rates, inflation, and disappointing earnings reports from certain biotech companies.

Now, despite this recent downturn, it's worth noting that the \$XBI is still significantly higher than its pandemic low of \$56.49 on March 23, 2020, amidst the COVID-19 chaos.

Looking ahead, the long-term outlook for the biotech industry remains positive as it diligently works on developing new treatments for various diseases. However, in the near term the \$XBI future appears uncertain as further volatility is expected.



Figure 1. As of May 2023, the performance of \$XBI has performed similar at-like Q2 2019.

Now, let's take a closer look at some additional factors that could sway the \$XBI's performance in the near future:

A crucial factor to keep an eye on is the pace of innovation within the biotech industry. As long as we witness ongoing development of new treatments for diverse diseases, the \$XBI is poised to continue its ascent. However, if the innovation momentum slows down, we might witness a decline in the \$XBI.

Lastly, let's not forget about the overall economic environment, which undoubtedly plays a role in the \$XBI performance. As long as the economy keeps growing, it's likely that the \$XBI will follow suit. However, if we find ourselves in a recessionary phase, the \$XBI might experience a downturn.

2.2 Private Capital Markets

In the last few years, the private markets in biotechnology were moderate. Venture capitalists were investing heavily in biotech startups, driven by excitement for breakthrough technologies like gene editing and gene therapy.

Several factors fuel the enthusiasm for biotech, including the success of drugs like CAR T-cell therapy in treating cancer, the development of transformative technologies, and the growing demand for therapies due to an aging population. Key trends in the private biotech markets for 2022 include increased investment in early-stage companies, a focus on gene editing, gene therapy, oncology, and rare diseases.

While the industry shows promise, it also carries significant risks, such as high failure rates and lengthy development timelines. According to Fogel (2018), phase 3 trials with novel therapeutics had a 54% failure rate in clinical development.

The biotech industry presents both high risks and high rewards. While venture capitalists are aware of the risks, they are also excited about its potential. Their significant investments reflect their confidence and search for the next groundbreaking advancement.

Pre-seed and Seed:

In 2021 and 2022, early-stage life science and medical device companies in the US secured an average funding round of \$2 million. This average is a combination of pre-seed and seed rounds. However, the average fundraising rounds in 2023 have dropped to \$1 million. As depicted in Figure 2, cumulative raises in 2021 and 2022 appeared relatively consistent. In contrary, this year presents greater challenges for early-stage companies seeking initial private funding.

Companies enter a challenging environment when raising pre-seed and seed financing in 2023.

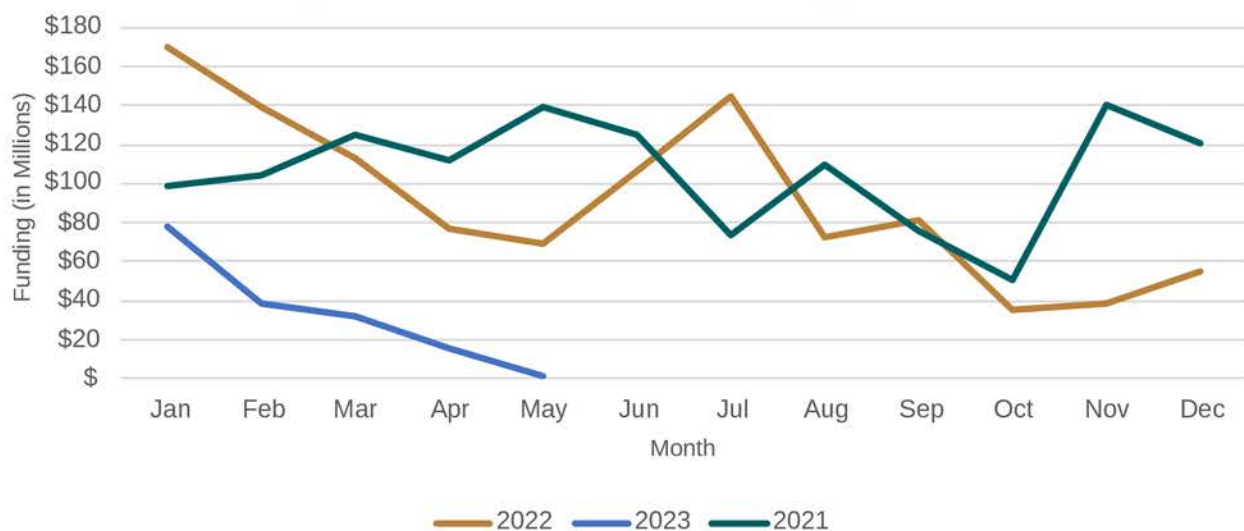


Figure 2. A monthly breakdown of pre-seed and seed funding rounds. Source: TheI, Crunchbase

As of May 2023, the cumulative raise for these two rounds stands at \$167 million as shown in Figure 3. This is significantly lower than the \$575 million raised 2021 and 2022, each year.

This 70% decline is a significant indicator of reduced activity and a more challenging environment for raising initial private capital.

As of May 2023, pre-seed and seed cumulative funding is near 70% less than previous years.

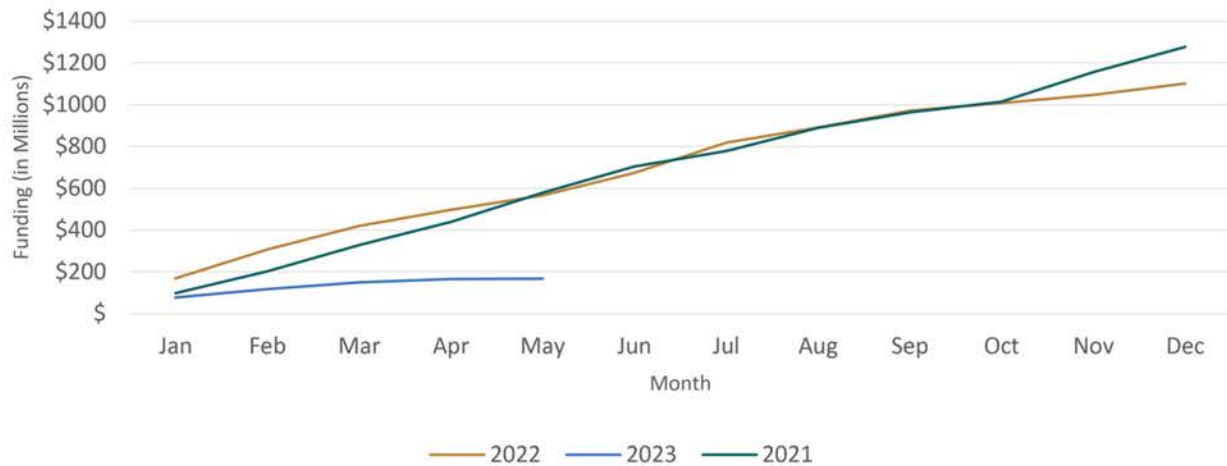


Figure 3. A gross cumulative view of pre-seed and seed funding throughout the year. Source: Thel, Crunchbase



Series A Venture:

In 2021, Series A financing for biotech companies showcased substantial value. But this didn't sustain as the momentum started to wane in 2022. As shown in Figure 4, there has been a pulsing increase during the summer months and by mid-November.

From a cumulative perspective, it becomes evident that venture activity in the biotech sector is experiencing a slowdown. While we may anticipate similar peaks in financing, our prediction suggests that the venture activity will not reach the levels seen in 2022. Figure 5 communicates this clearly.

2021 - 2023 YTD Monthly Series A Funding

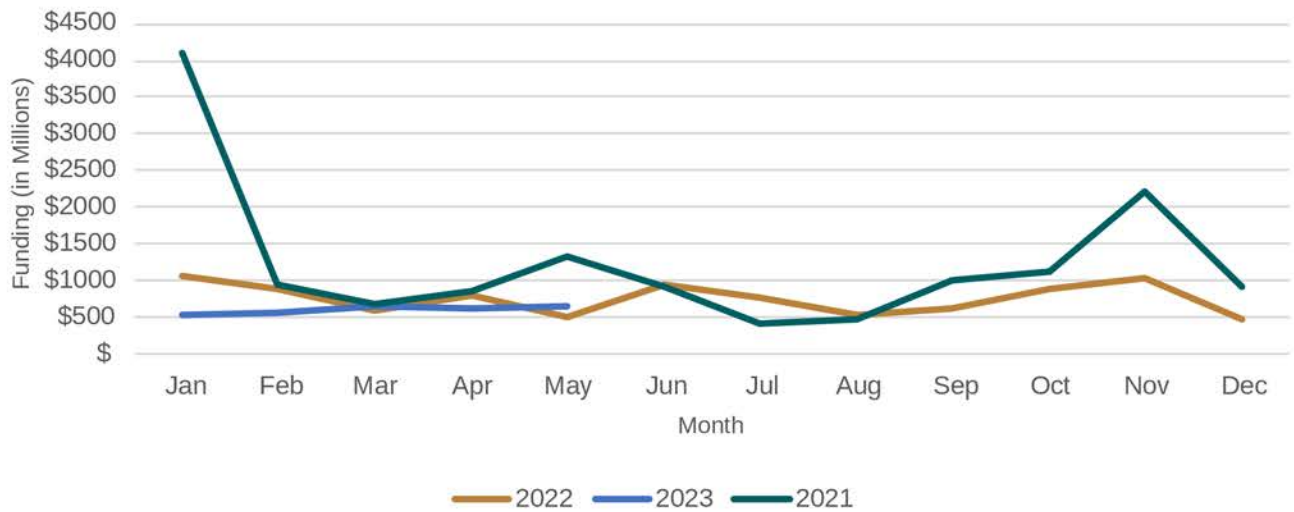


Figure 4. A monthly breakdown of series A funding rounds. Source: TheI, Crunchbase

2021 - 2023 YTD Cumulative Series A Funding

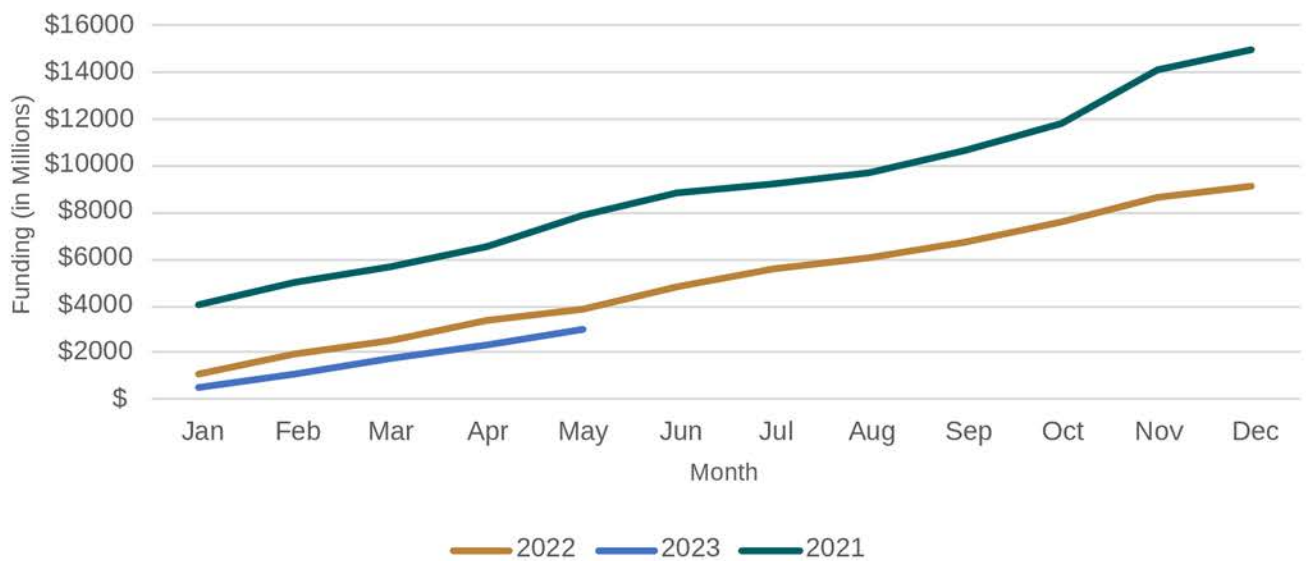


Figure 5. A gross cumulative view of series A funding throughout the year. Source: TheI, Crunchbase

Pre-seed and seed capital raises as of 2022, in millions

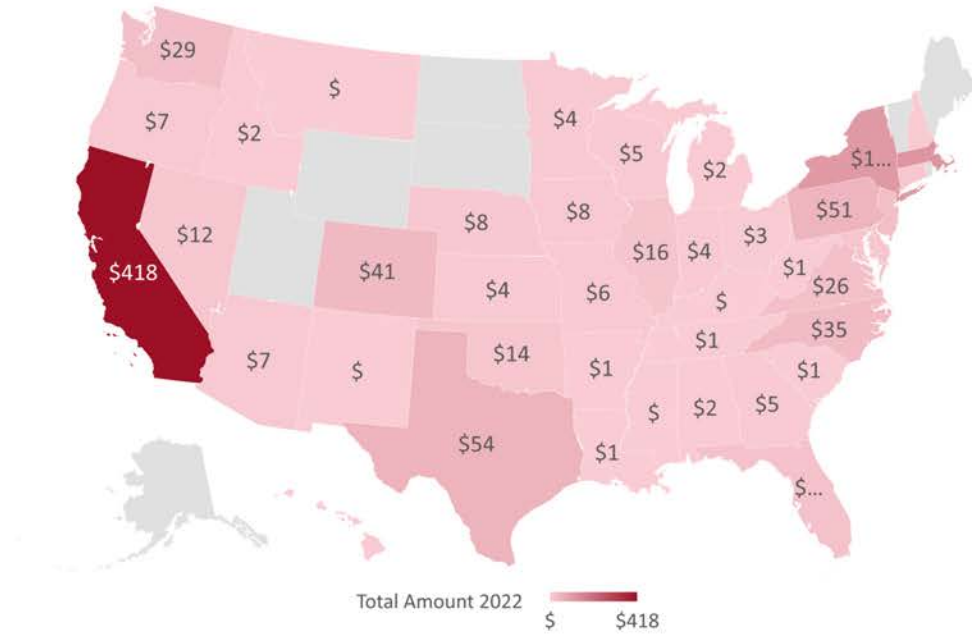


Figure 11. A geographical breakdown of early stage funding in 2022. Source: Thel, Crunchbase

Pre-seed and seed capital raises as of May 2023, in millions

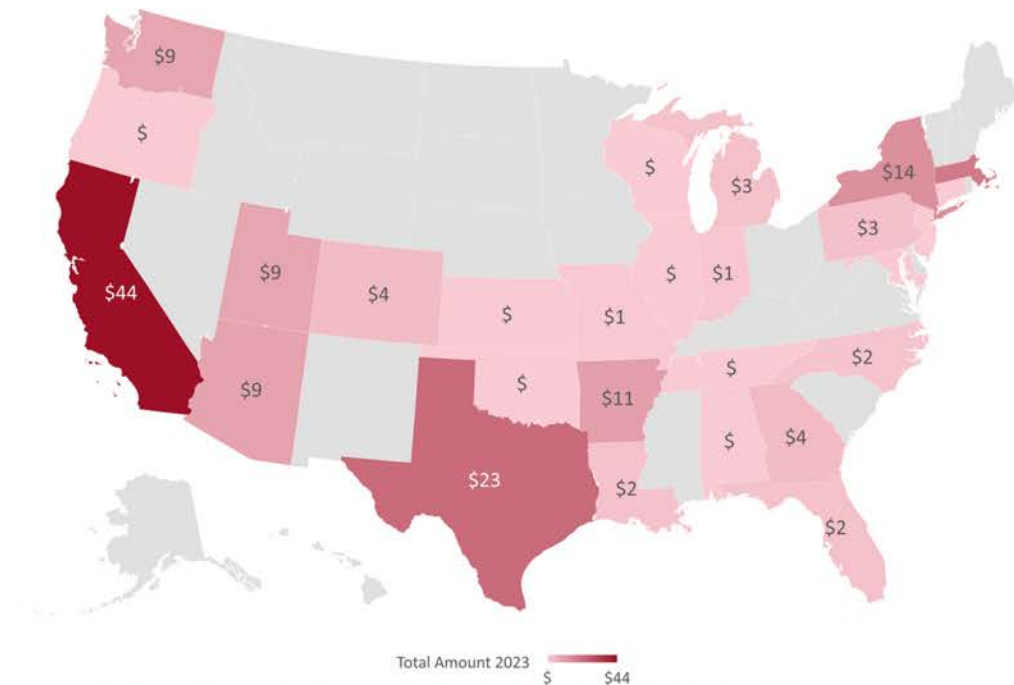


Figure 12. A geographical breakdown of early stage funding in 2023. Source: Thel, Crunchbase

When comparing Figure 11 and Figure 12, we predict that states with previous early stage capital activity will likely support biotech and life science startups in 2023. Specifically, states such as Nebraska and Nevada supported start ups with \$8 million and \$12 million in 2022 respectively, but have yet shown any activity in 2023. These states, amongst others, will likely have more pre-seed and seed activity in 2023.

3

Clinical Trial Activity

Clinical trials are the gold standard for evaluating new medications and devices. They're generally conducted in four phases, each with a different purpose.

- **Phase I trials** are the first time a new treatment is tested in people. The goal is to assess safety and for the example of a drug discovery company, determine the best dose.
- **Phase II trials** are conducted in a larger group of people to see if the treatment is effective.
- **Phase III trials** are the largest and most rigorous trials. They compare the new treatment to the standard of care to see if it's better.
- **Phase IV trials** are conducted after the treatment is approved for use. They collect additional information about safety and effectiveness.

As of May 2023, there are 133 active Phase 1 and 2 clinical trials in South Dakota. The majority of the trials (68%) are in Phase 2, which means that they are testing the effectiveness of a new treatment in a larger group of people.

Industry companies are the sponsor of the majority of the trials (54%) whereas NIH made up the remaining (46%). **With the concentrated support from the industry, this presents an opportunity for the USD Discovery District.**

In Phase 2, the most common diseases being studied in the trials are cancer, digestive system diseases, and immune system diseases.

Overall, Merck Sharp & Dohme LLC is the leading sponsor of clinical trials in South Dakota with 22 current studies across Phase 1 through 4. This provides a glimpse into industry-initiated vs investigator trials.

South Dakota participates in these active Phase 1 and Phase 2 clinical trials as of May 2023

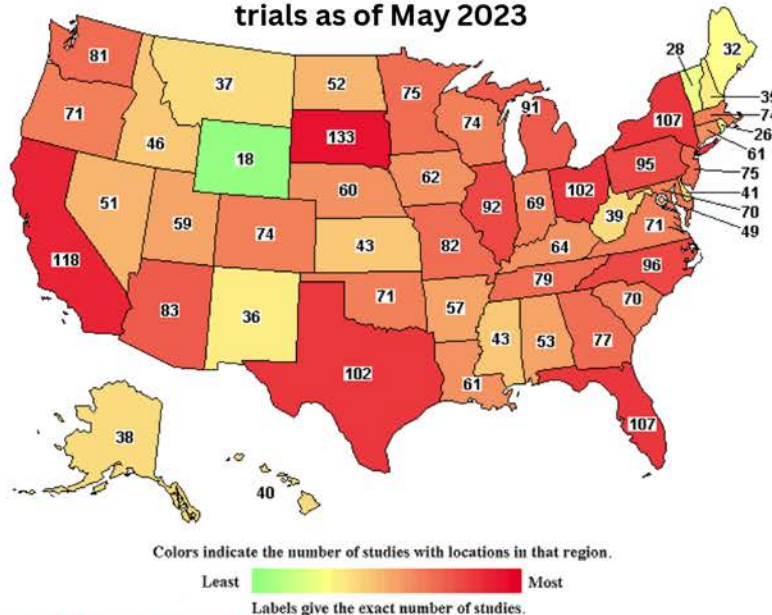


Figure 6. Source: NIH US National Library of Medicine

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Research Parks

Through our primary research, we surveyed and interviewed several representatives from research parks across the nation. Based on the survey respondents, there is an emphasis on office space when compared to lab space. Specifically, 60% of the total square footage is dedicated to office with the remaining 40% is for lab space. **This aligns with tenant needs in the Development stage.**

In addition to Figure 7, some parks also indicated that they leverage acres of land to test and demonstrate technology that is being developed at the park. Other services include business and commercialization services and industry-university collaboration.

Research Park tenants value specialized laboratory facilities, transportation, and parking.

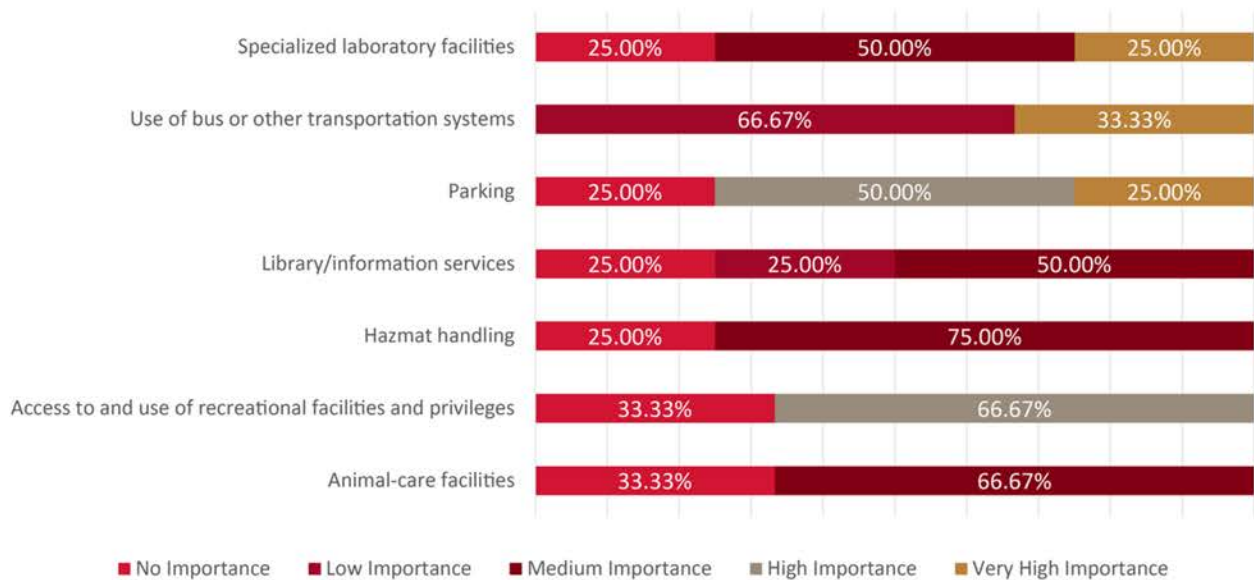


Figure 7. Source: TheI

As shown in Figure 8, feedback indicates university related resources such as the USD GEAR Center are commonly available to research park tenants. Respondents indicated access to these facilities and resources (e.g. analytical lab, prototyping lab) are a significant benefit and a factor in the decision to locate within a research park. Furthermore, research park tenants have access to university tech transfer, commercialization office, and human resources for matching internships, co-op programs, and post-doc hiring.

University core facilities are commonly offered to Research Parks tenants.

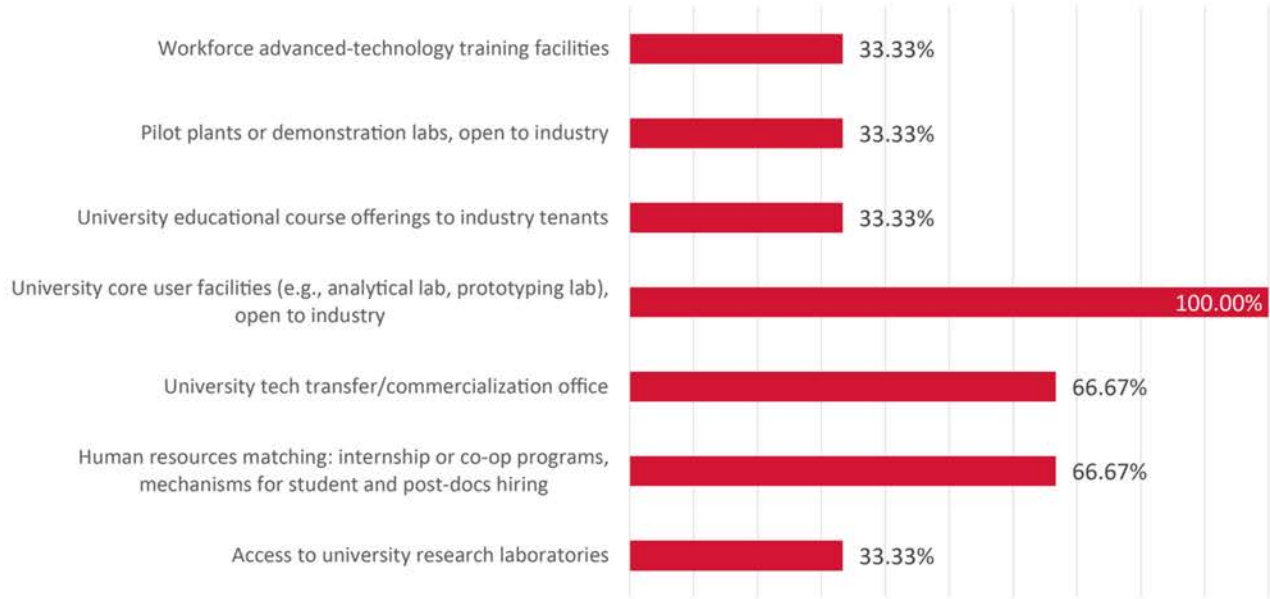


Figure 8. Source: TheI

The commitment of university leadership and clear competency alignment with tenants are the primary reasons for success.

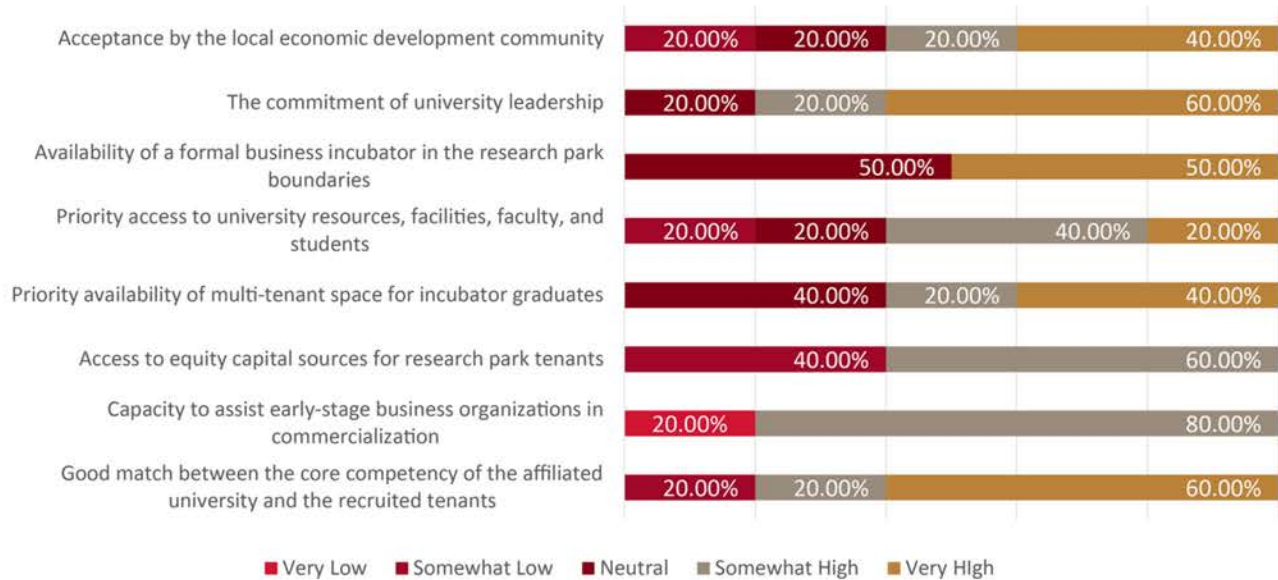


Figure 9. Source: TheI

Implications of COVID

There was a surprising mix response from research parks with respect to COVID. Some research parks indicated that vacancy rates are increasing as they are still waiting for all employees to return to the workplace. On the other hand, some research parks indicated that tenancy has increased as a result of remote/flexible working has changed some uses of existing spaces.

Development challenges in the next five years

All research parks in the study believed that two challenges will have a medium significance: 1) competition from other sources, and 2) insufficient customer use to expand retail/commercial components of the park. Additionally, a majority believed that capital for park development and renovations and equity capital for tenants are other driving factors.

Why would tenants locate in university research parks?

Majority respondents indicated that access to a skilled workforce, including students, are a very high importance factor for prospective tenants. Other high importance factors include: quality of buildings and flexible leasing space.

Top tenant prospect recruitment methods

- Speculative lab buildings for inventory of space
- Tenant improvements in lab spaces
- Flexible tenant improvement allowances
- Outreach to c-suite and alumni

Tenants relocate to Research Parks for access to skilled workforce.

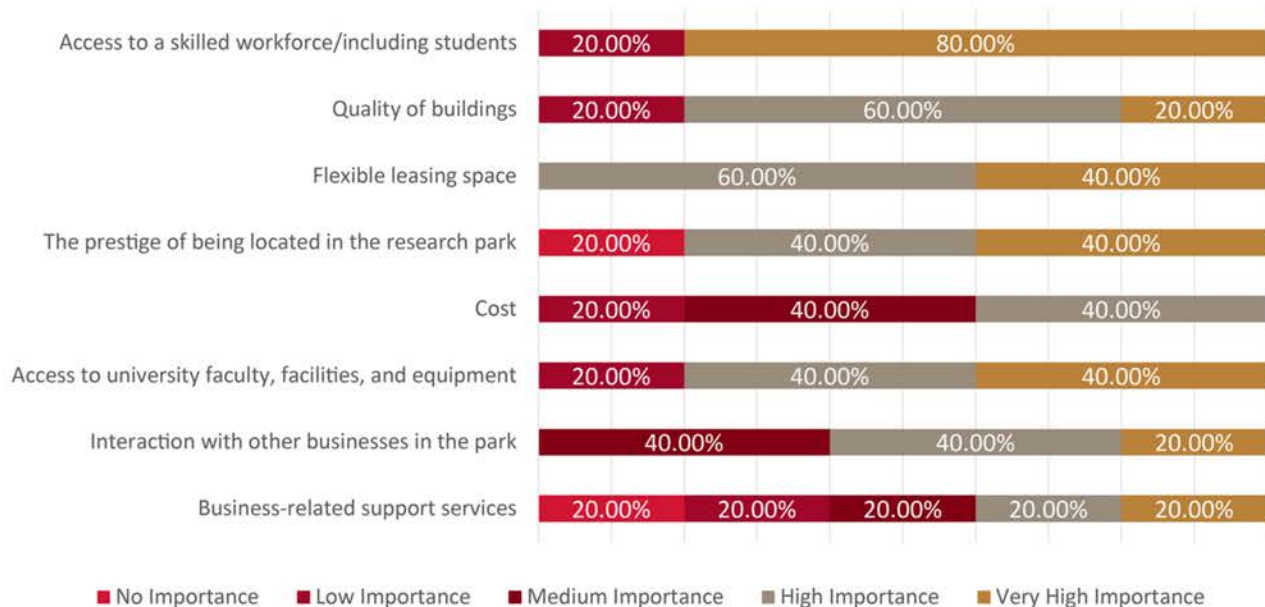


Figure 10. Source: TheI

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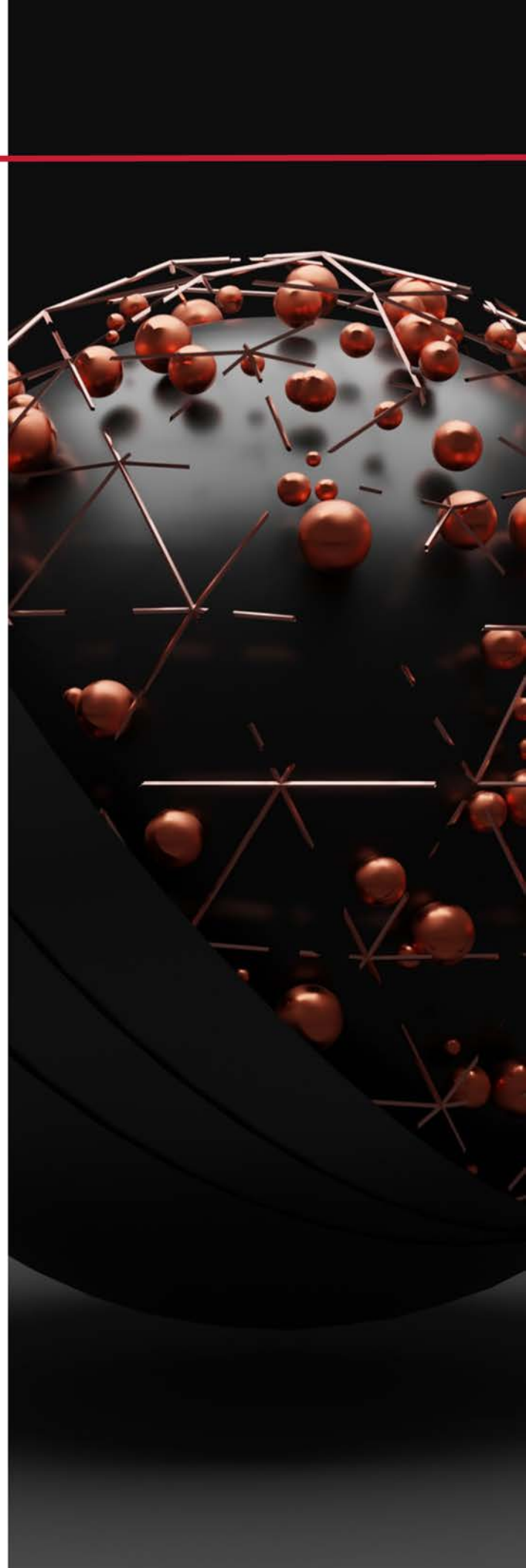
Tenant Profiles

USD Discovery District Building 1 resides within the City of Sioux Falls, zoned as S-2 which has permitted uses for research facility, office, and dwellings above first story. Therefore, the proposed tenant profiles will meet the defined zoning district S-2 requirements. In addition, the proposed tenant profiles will be required to meet USDRP Permitted Use Criteria such as meeting Economic Development & Innovation Economy Objectives and Place Making & Community Objectives.

Before the tenant profiles are presented, it is worth making a significant distinction between incubation and lab scale facilities. **It must be clear that the USD GEAR Center is for incubation tenants whereas the USD Discovery District is for lab-scale tenants.** Alternatively, the USD GEAR Center educates and trains the next generation of skilled talent through *research* and exploration. The USD Discovery District serves as a launchpad for companies to fast-track the *development* of groundbreaking solutions to the most crucial obstacles in health and life science.

Here is why the distinction matters. Research and development are often lumped together as R&D, but it's important to understand the difference between the two.

- **Research** is the process of gathering new knowledge. It's typically done in a lab setting, and it often involves a lot of experimentation.
- **Development** is the process of turning research into a product or service. It's typically done in an office setting, and it often involves a lot of planning and collaboration.





Each stage of R&D requires different types of space:

- **Research** requires a high ratio of lab to office space. This is because researchers need a place to conduct experiments and gather data. Companies will likely require specialty labs for activities such as tissue culture.
- **Development** requires a lower ratio of lab to office space. This is because of the increase need of a place to plan, collaborate, data analysis, and market their products. However, these companies may require a vivarium and/or scale-up labs. **The USD Discovery District is positioned to serve this specific market.**
- **Clinical manufacturing** requires a similar ratio of lab to office space as development stage companies. However, it may also require a pilot plant and increased regulatory compliance.
- **Commercial manufacturing** requires a separate facility. This is because commercial manufacturing requires a large-scale production facility that meets all regulatory requirements.

To recruit the best tenants, it is worth understanding their business in great depth. In the next sections, we take a closer look at understanding product evolution, product type, and structure.

- **Product evolution** is the process of a company's product going from idea to market. This requires understanding the company's research and development process, their clinical trials, and their product launch strategy.
- **Product type** is the category of product that the company makes. We explore three main types: drug discovery, drug delivery, and medical device.
- **Structure** is the way that the company is organized. This requires understanding their core operating functions, their organizational culture, and their leadership.

Within the Product Type, here are a few of the most common:

- **Drug discovery** is the process of finding new drugs to treat diseases. There are two main types of drug discovery: pharmaceuticals and synthesis. Pharmaceuticals are chemical drug compounds, while synthesis is the process of artificially producing life forms.
- **Drug delivery** is the process of getting drugs into the body. There are five main types of drug delivery: solid dose, parenteral, inhalation, transdermal, and topical. Solid dose drugs are tablets, parenteral drugs are injections, inhalation drugs are powders or liquids that are inhaled, transdermal drugs are absorbed through the skin, and topical drugs are applied to the skin but do not absorb into the body.
- **Medical devices** are products that are used to diagnose, treat, or prevent diseases and other indications. There are two main types of medical devices: in-vivo and in-vitro. Examples of in-vivo devices are implantable devices, while in-vitro devices are non-life-critical devices.

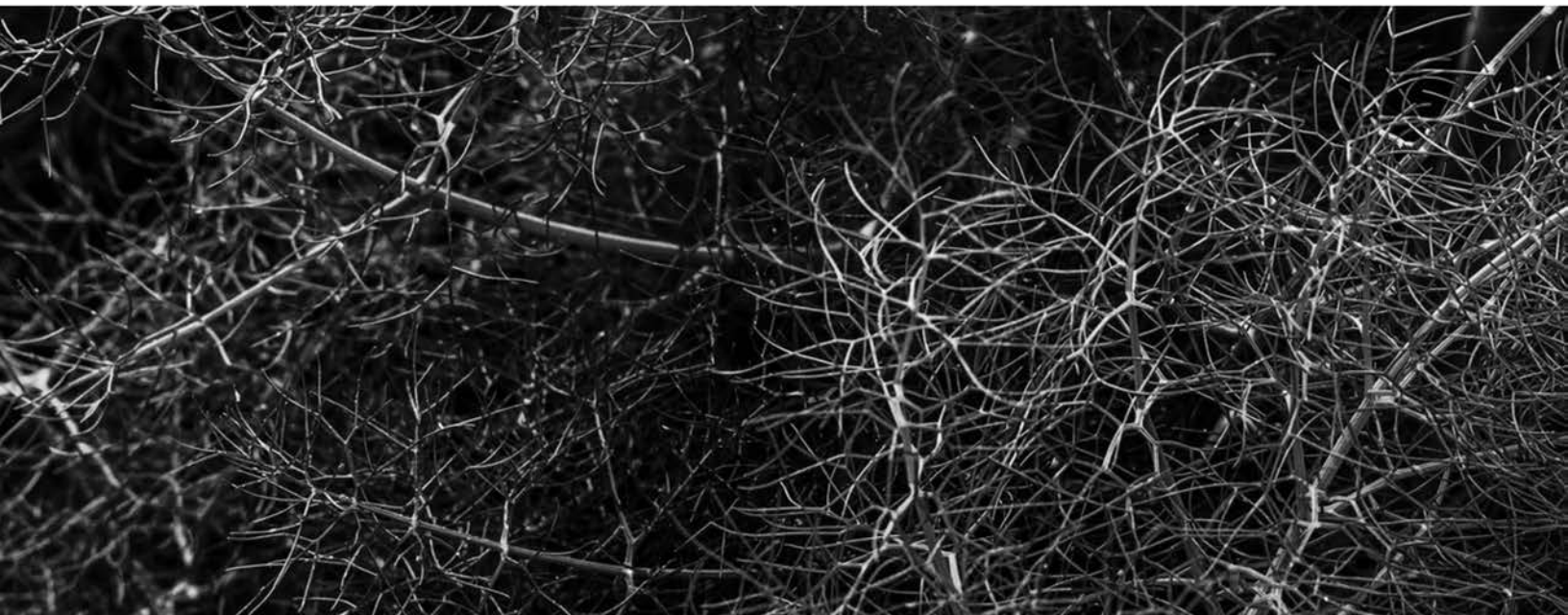
Next, we address other criterion that should be considered when evaluating a prospective tenant.

- **Funding:** As previously addressed, access to capital is one of the main priorities for prospective tenants. As a result, the timing of fundraising for tenants will be upmost important for their operations.
- **Current Location:** The ideal tenant will likely relocate geographically to where opportunity is present. Therefore, it is critical to understand the tenant's current location to uncover their infrastructure and resource needs. Lastly, understanding their location will guide the competitive advantage for the USD Discovery District. See Figure 11 and 12.
- **Workforce:** As other Research Parks have identified, access to talent and workforce is a main priority for prospective tenants. We use a benchmark of 300 sf per person. The ideal tenant is likely positioned for growth and therefore will have to recruit talent to further commercialize their product. **The post-secondary education system in South Dakota will play a critical role in this.**



As a result, here is the **tenant profile criterion**. A perfect score will be 135. Each profile will be evaluated per each criterion and scored accordingly. The multiplier column represents the weight of importance.

Criterion	Description	Multiplier (1-5)	x	Score (1-5)	=	Final Score
Product Research Stage	Preclinical, Phase 1, Phase 2, Phase 3, Phase 4	4				
Product Type	Drug Discovery, Drug Delivery, Medical Device	3				
Company Structure	Organizational Chart, Entity Type	3				
Company Development Stage	Research, Development, Clinical Manufacturing, Commercial Manufacturing	4				
Workforce	# of staff and anticipated growth	5				
Funding	Pre-seed, Seed, Series A, Series B, +	5				
Current Location	City, State	3				
Total Score						SCORE





Example 1 of an ideal profile:

Criterion	Description	Multiplier (1-5)	x Score (1-5)	= Final Score
Product Research Stage	Phase 1	4	4	16
Product Type	Medical Device	3	4	12
Company Structure	Chief Executive Officer, Chief Medical Officer, Chief Operating Officer of Limited Liability Company	3	3	9
Company Development Stage	Development	4	5	20
Workforce	< 4 employees and plans to hire 7 more employees (researchers and engineers) 1200 sqft to 3300 sqft	5	4	20
Funding	At Series A, raised a total of \$6M to date	5	5	25
Current Location	Reno, Nevada	3	3	9
Total Score				111

To cast a broader net of tenant profiles, we examined service providers in the life science and biotech industry. Namely, contract research organizations (CROs), companies that provide research services to the pharmaceutical, biotechnology, and medical device industries. CROs offer a wide range of services, including:

- Biopharmaceutical development
- Preclinical research
- Clinical research
- Clinical trial management
- Data management and regulation adherence services
- Development, advancement, and formulation of devices and medications

CROs can provide a valuable service to pharmaceutical and biotechnology companies by helping them bring new drugs and medical devices to market more quickly and efficiently. CROs can also help companies to reduce the cost of research and development.

Example 3 for CRO tenant profile, a perfect score is 85:

Criterion	Description	Multiplier (1-5)	x Score (1-5)	= Final Score
Sales Revenue	Average \$2M from past 3 year financials	4	5	20
Specialty	Regulatory affairs, clinical research, quality assurance in life science	3	4	12
Company Structure	President & CEO of Limited Liability Company	2	2	4
Workforce	< 5 employees and plans to higher 3 more employees 1500 sqft to 2400 sqft	5	4	20
Current Location	Omaha, Nebraska	3	3	9
Total Score				65

According to IBIS World, the CRO industry is predicted to grow 4% in annual revenue by 2027. The growth of the CRO industry is being driven by the increasing demand for new drugs and medical devices, the rising cost of research and development, and the increasing complexity of clinical trials.

CROs typically require large, well-equipped laboratories, as well as office space for their staff. Leasing to CROs can provide a number of benefits including:

- **Stable income:** CROs typically have long-term contracts with their clients, which can provide a consistent stream of leasing revenue.
- **Job creation:** CROs create jobs in the local area, which can boost the local economy.
- **Innovation:** CROs are at the forefront of drug development, which can attract other innovative companies to the area.



Here is a **tenant needs matrix**. The matrix effectively evaluates the alignment between tenant needs and research park offerings, enabling the identification of compatible matches. This analysis enhances the potential for fruitful collaborations and long-term partnerships between tenants and the research park.

Tenant Needs, by Company Type

	Drug Discovery	Drug Delivery	Medical Device	Contract Research Organization	Life Science Services
Flexible leasing space	✓	✓	✓		
Specialized lab and equipment*	✓	✓	✓	✓	
USD GEAR Center services*	✓	✓	✓		
USD Discovery District Offerings Student workforce*	✓	✓	✓	✓	✓
Access to grant and private funding	✓	✓	✓		
Animal facilities*	✓	✓	✓	✓	
Quality of building	✓	✓	✓	✓	
Access to university services	✓	✓	✓		
Located near customers				✓	✓

**each tenant profile will likely require a specific need. E.g. a medical device company may need a material test system whereas a drug delivery company will not.*



“

"No individual is alone responsible for a single stepping stone along the path of progress, and where the path is smooth progress is most rapid."

”

E.O. Lawrence

6

South Dakota Insights

Workforce and Talent

As of September 2022, South Dakota employed 361 people in the biotechnology and other life science industries. This appears to be 8% decrease from three months prior according to Bureau of Labor Statistics. Furthermore, there is a combined 77 establishments in South Dakota that are in biotechnology and life science.

According to the South Dakota Board of Regents Fiscal Year 2023 Factbook, the state has invested \$60.6M in the Governor's Research Center (GRC) Program. As a result, 25 startup companies affiliated with the research centers have created over 200 jobs in South Dakota and received over \$8M in Small Business Innovation Research (SBIR) funding.

In 2022, South Dakota graduated over 2,500 students with BS, MS, and PhD in relevant studies including engineering, biomedical engineering, health science, physical science, business management marketing, and others. Overall, we believe there is a dedicated talent pool in South Dakota for biotech and life science companies. The question remains is how does the state increase the talent retention?

Dilutive Funding

The main hurdle faced by biotech and life science companies is accessing funding. Despite the presence of four active angel funds in the state, very few, if any, investments have been made in these industries. The funds commonly cite the lengthy timeframes needed for research

and development before commercialization can occur. Consequently, this indicates a potential absence of emphasis on biotech and life science within the local private equity community. As we've previously discussed in both public and private market analysis, this industry is subjected to prolonged commercialization timelines. Factors contributing to this include increased regulatory compliance, such as FDA market approval, and clinical trials. For South Dakota-based startups to successfully secure private funding, it will likely require finding lead investors who comprehend the market and commercialization timelines. Currently, South Dakota's biotech and life science startups have limited choices in the state and therefore will have to seek early-stage capital elsewhere.

A Unique Startup Culture

Over the last 3 years, USD Office of Research has taken strides to cultivate the development of entrepreneurs and graduate students in technology commercialization. Specifically, the USD Tech2Launch program and USD Technology Readiness Acceleration Center (TRAC) have played significant roles. USD Tech2Launch is a program aimed to relieve SD inventors from business operations tasks by providing back-office business support such as legal, financial, and business consulting services. To date, the program has assisted 10 start-ups across SD in business formation and fundraising strategies. USD TRAC is a fellowship program that pairs graduate students to industry and university intellectual property with the goal of commercialization training to further advance research into the marketplace. Other universities have also created specific technology commercialization programs.

In addition, here are a few specific resources:

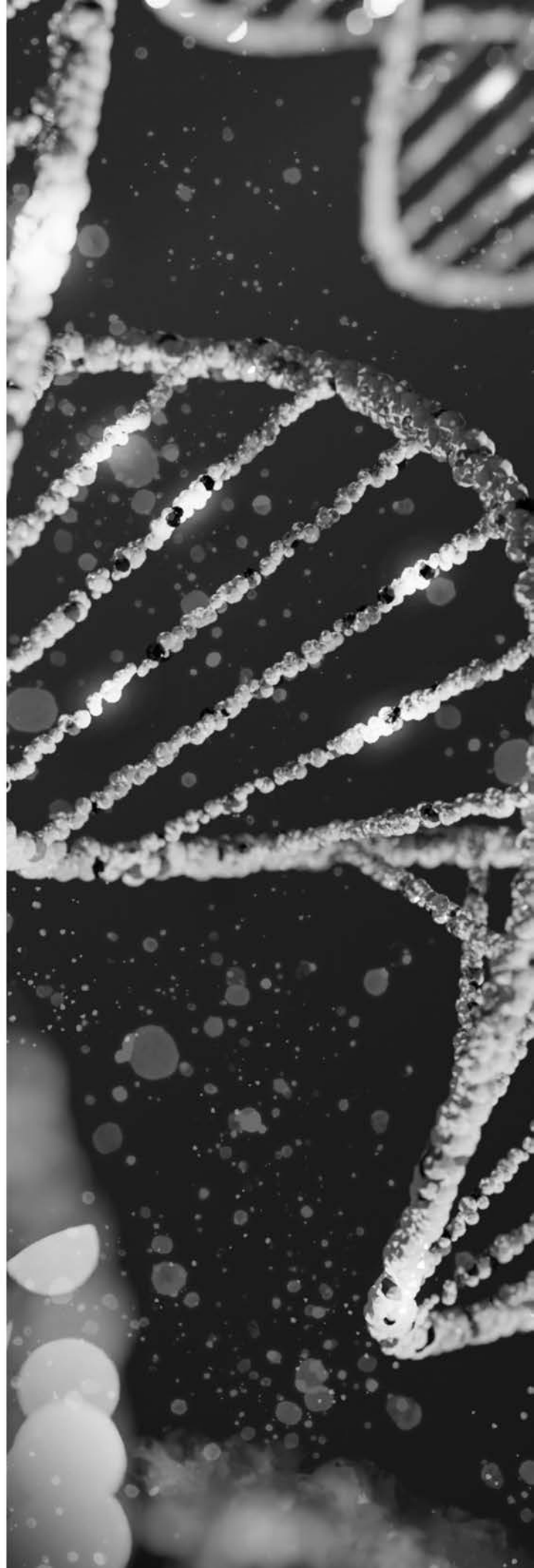
- South Dakota Governor's Office of Economic Development *Proof of Concept Award*
- South Dakota Governor's *Giant Vision Competition*
- South Dakota Biotech Association, South Dakota Established Program to Stimulate Competitive Research (EPSCoR), Dakota State University *FAST Launch*
- Dakota State University *Launch Lab*

Life science and biotech startups in South Dakota have access to approximately \$65K in non-dilutive funding from various in-state sources.

Additionally, they individually receive approximately \$25K worth of in-kind services and programs such as mentorship, consulting, and training. Together, these resources provide a value of approximately \$100K to assist startups in developing business plans, receiving commercialization training, and advancing proof of concept.

As we've previously discussed, the life science industry operates on an extended commercialization timeline. The \$100K in-state value may be utilized within a span of 12 months and startups must identify their next funding sources. The natural step would be to apply for SBIR grants. These are federal grants to help businesses conduct research and development. However, the success rates for these grants are relatively low. According to the National Institute of Health and the National Science Foundation, the success rate for a Phase 1 application (around \$250K for a one-year project) is less than 15%.

One approach to accelerate funding for life science and biotech startups is to increase engagement through pre-seed and seed investments. Achieving this goal will require establishing dedicated networks and increase awareness to South Dakota investors about the opportunities in the life science industry.



7

Conclusion

Define Marketing Channels Within Sioux Falls and South Dakota

A successful marketing campaign will require distributing messages and content to various distribution channels. A suggested step is to create collaborative content with other stakeholders and publish the content to respective social media platforms. This approach demonstrates organization and collaboration to create specific and approved messaging that promotes Sioux Falls and South Dakota.

Craft Specific Messaging That Each Prospective Tenant Deserves

Through the development of the tenant profiles, it is clear that each prospective tenant values different resources and has unique goals. Therefore, it is best to create specific messaging for each tenant profile so that engagement is maximized and leads are qualified quickly. Regionally and nationally, we suggest the next step is to identify 100 tenants through current contacts, SBIR awardees, and existing clinical trials. For those qualified, in-person engagement will be required to build the relationship and meet specific needs.

Search For Prospective Tenants In States With Limited Resources

Prospecting in biotech hubs and large metropolitan locations will likely increase competition from varying sources. Therefore, search for tenants that currently reside in states that are similar to South Dakota and states that have less resources than what South Dakota has to offer. South Dakota may not be the final destination for tenants, but it can be the graduation space. An example is to reference the states that are anticipated in raising early stage capital.

Engage With USD Alumni

Access to workforce and specialized talent is a priority need for prospective tenants. One way to address this need is to interview USD alumni in life science and biotech industries, preferably alumnus in a c-suite role. The message here is to communicate to the alumnus that, “you know the quality of graduates from USD because you are one” and “how are you addressing your organization’s growth?”. An example would be to collaborate with USD Foundation.

Explore The Supply Chain

It is worth investigating the supply chain of life science companies existing in South Dakota and the surrounding region. Look for companies that want to be geographically near an important client in order to provide better service and cost. This also includes companies that want to be co-located and have in interest in connecting to the university and other local organizations. An example will be to identify approved vendors and service providers for existing clinical trials in South Dakota.

8

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About



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About TheL Consulting

TheL Consulting is a multi-disciplinary consulting firm based in Sioux Falls, SD. Our mission is to empower business leaders in shaping exceptional end user experiences. We imagine a future where business leaders make the best and thoughtful decisions for their customers.

Tung Nguyen is Partner at TheL Consulting. After graduating with a Mechanical Engineering degree from SD Mines, he spent his early career in the Oil & Gas industry in engineering and sales roles. During the height of the COVID pandemic in 2020, he and his wife, along with their dog TheL, relocated to South Dakota to be closer to family. He graduated with his MBA from University of South Dakota Beacom School of Business in 2022.

From Tung Nguyen:

Over the past year, I've had the pleasure of working with these South Dakota start-ups. Although this is an abbreviated list, these founders are dedicated in solving some of the world's biggest challenges in industries like healthcare, life science, and energy. Inspiration is an overrated descriptor. At the very least, these startups have ignited a new era of entrepreneurship and I'm grateful to be a little part of their journey.

In no particular order:

SoDak Solutions, Dangler Bio, Human It, Straight Up Care, BioBest, Greenlight Bionics, Oncoplant, BioNanoTech, CellField Technologies, Bio-Navitas, eqUTI, Score-Score, Cyber Astronautica, Amber Aqua, Hydrolyst, Shepherd VR.

Appendix

SYSTEM TECHNOLOGY TRANSFER	FY21	FY22
Invention Disclosures from Research	34	43
Patent & Other IP Protection Filings	21	21
Patent Issued	9	18
License Agreements with Start-up Companies	5	0
All License Agreements	9	6