LIFE SCIENCES SNAPSHOT

A Quarterly Report on Financing Trends

WOMEN'S & REPRODUCTIVE HEALTH
Q1 2024

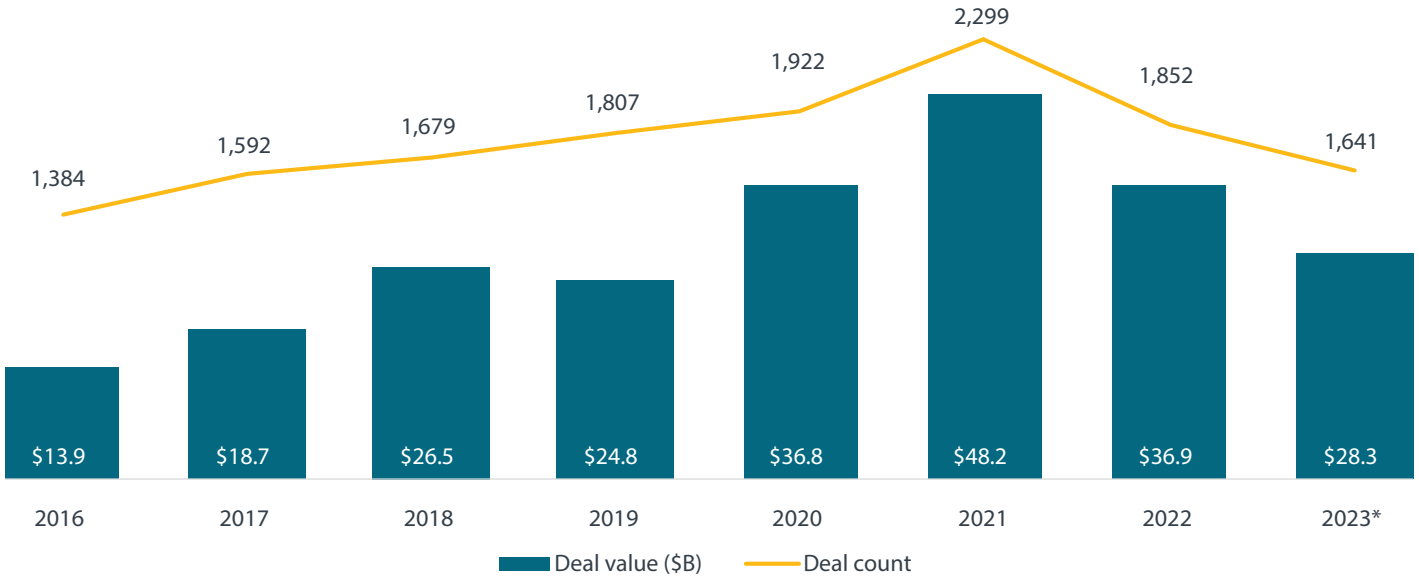
orrick

Data provided by

PitchBook

Key Takeaways

Life sciences VC deal activity



Source: PitchBook | Geography: US
*As of December 31, 2023

This report series examines quarterly trends in life sciences venture investment. Key findings for Q4 2023 include:

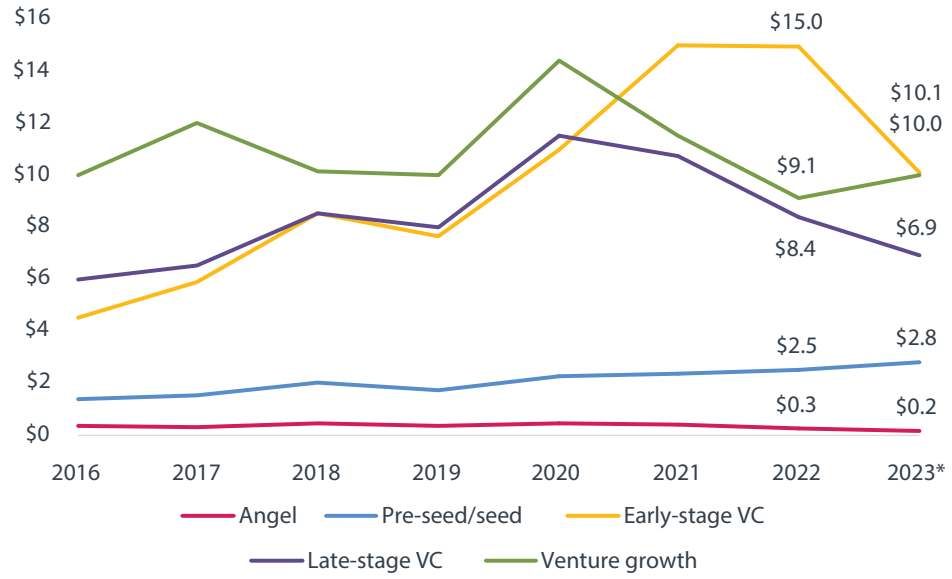
- Life sciences VC deal value in Q4 2023 totaled $6.6 billion, representing a 25.0% decrease from the prior quarter. Total deal value for 2023 reached $28.3 billion—a 23.2% decline from 2022 and the lowest annual total since 2019, indicating a return to pre-pandemic levels of activity as the VC environment has yet to fully regain its momentum.
- Deal sizes declined for most company stages in 2023 as fundraising slowed and investors shifted toward portfolio monitoring. Early-stage companies experienced a decline in the median deal size for the first time since 2019.
- Valuations also declined for all company stages except pre-seed/seed, as companies and investors continued to face funding headwinds but recognized opportunities within the earliest stages of development.
- The exit environment for life sciences VC also remained in the shadows of its 2021 record high, with a total of $16.3 billion generated across 120 deals, which represents a further moderate decline from 2022. Acquisitions and buyouts emerged as more popular exit routes in 2022, and this trend continued throughout 2023.

Market Analysis

Life sciences VC dealmaking finished the year at a lower level of cumulative value compared with 2022, marking the second year of a slowdown amid prolonged economic concerns. While deal value grew in each of the first three quarters of 2023, the fourth quarter ended that run with a 25.0% decline. Deal count ticked downward in each quarter as well as investors pulled back from new commitments and focused on portfolio monitoring. Similar trends took shape across other industries as the entire venture ecosystem contended with a new normal for dealmaking following a surge in 2021. However, life sciences deals can benefit from longer time horizons and milestone structures, thus providing some insulation from near-term economic concerns. The industry has seen advancements in areas including gene therapy, and major players have indicated interest in partnerships to drive continued innovations, thereby offering opportunities for dealmakers despite the slower pace.

Median deal size trends exhibited a mixed bag of changes in 2023, with material decreases year over year (YoY) for both the early- and late-stage VC categories, and double-digit increases for the pre-seed/seed and venture-growth categories. Early-stage VC experienced its first YoY decline since 2019, while late-stage VC has declined each year since 2020. At the onset of the pandemic in 2020, all stages initially saw an increase in median deal sizes, but they have since experienced varying degrees of normalizing. Early-stage deals were initially insulated from the market downturn in 2022, but deal sizes are beginning to come down. Late-stage deals began declining earlier, with the continued pressure applied in 2023 resulting in a median deal size already more in line with pre-pandemic levels.

Median life sciences VC deal value ($M) by stage



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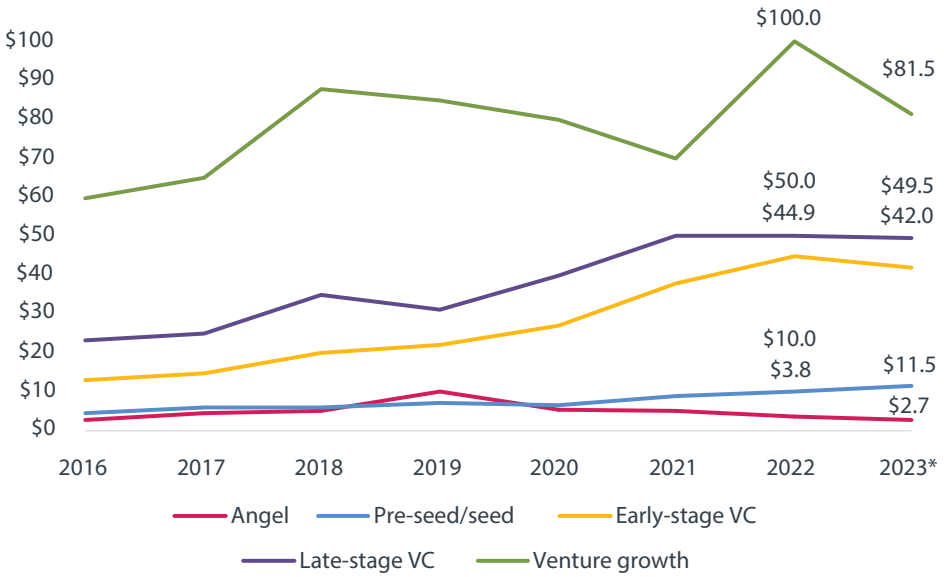
Median life sciences VC pre-money valuation ($M) by stage



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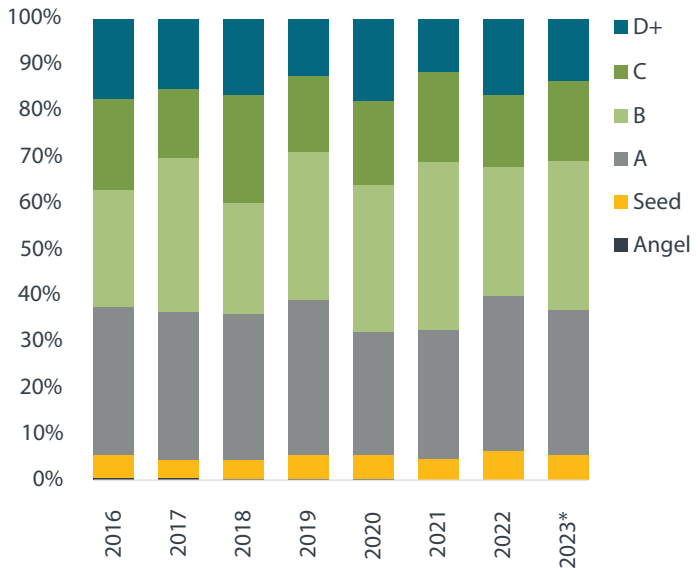
Share of life sciences VC deal value by series



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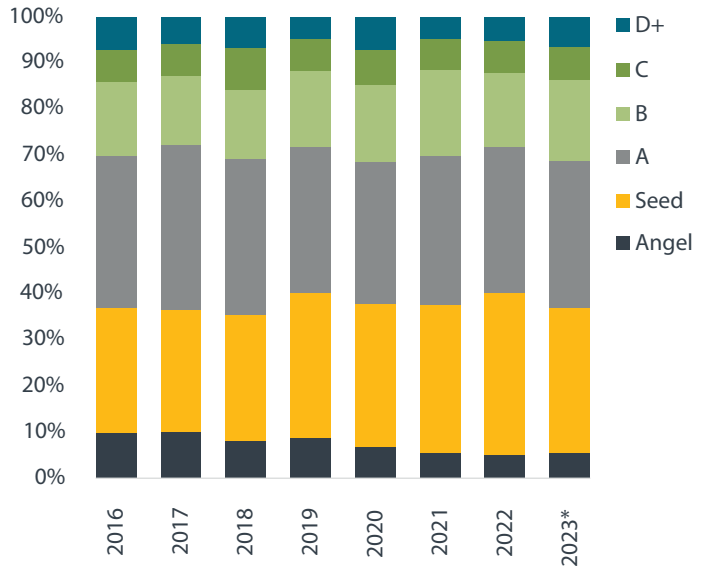
Share of life sciences VC deal count by series



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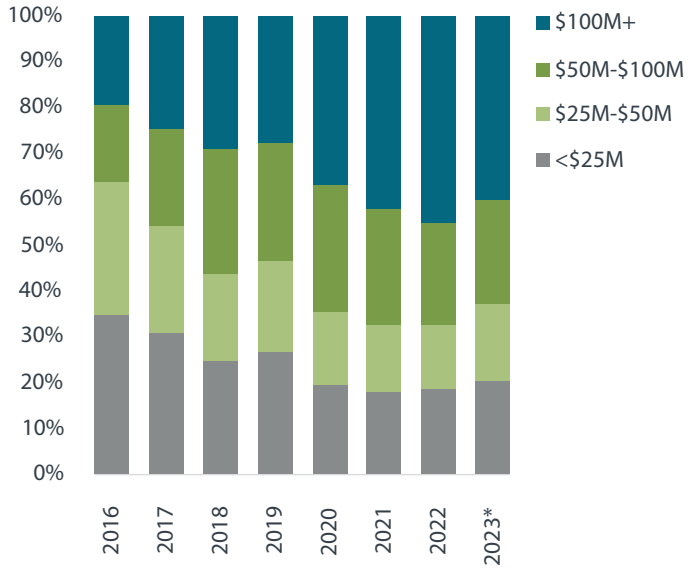
Share of life sciences VC deal value by size range



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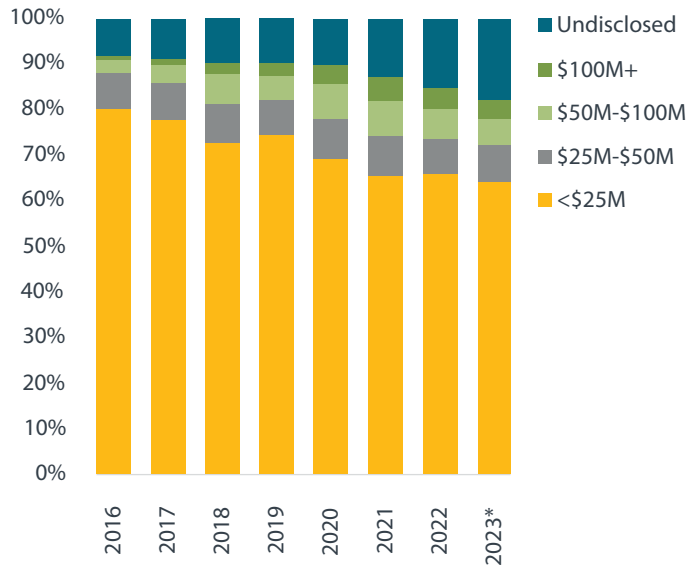
Share of life sciences VC deal count by size range



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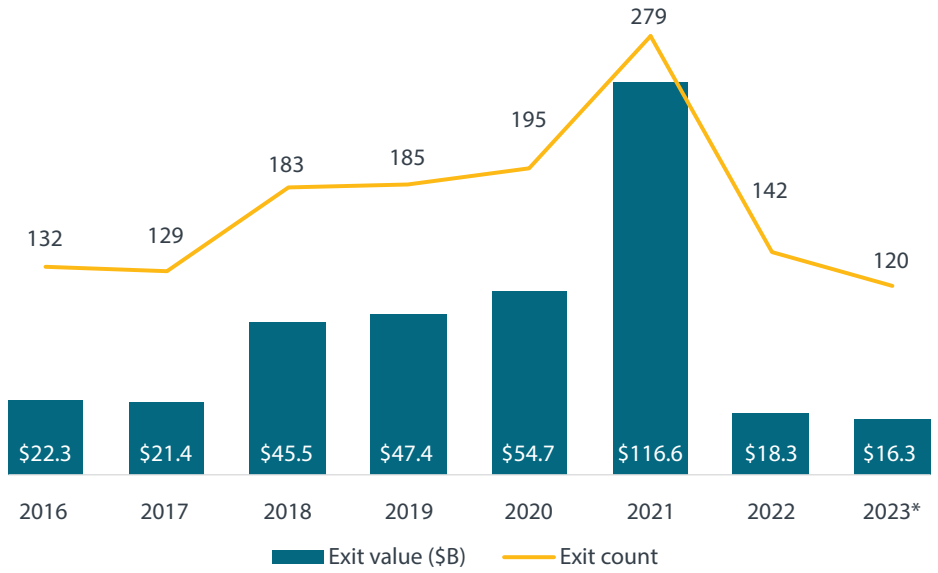
Market Analysis

As valuations remain compressed, deals of $100 million or more represented a smaller portion of total deal value for the year, reversing a trend of growth seen since 2019. Median pre-money valuations declined in 2023 for all stages except pre-seed/seed as companies and investors continued to face funding headwinds. Companies in these very early stages of development have maintained consistent median valuation growth for the past five years, even as macroeconomic constraints impacted other stages. Avilar Therapeutics secured the largest seed round of the year, at $75.3 million for multiple pipeline programs related to extracellular proteins. There has been a notable rise in deal count for the pre-seed/seed category over the past decade as well, providing a solid pipeline for future life sciences players and their investors.

Despite a strong showing in Q3 2023, VC exit activity ended the year below its 2022 level, as the industry continued to face the effects of a dry IPO market. $16.3 billion was generated across 120 exits, marking the slowest year for life sciences VC exits since 2012. Acquisitions remain the favored route for investors, accounting for nearly two-thirds of the total exit count in 2023 compared with just over half in 2022. The number of IPOs closed represents a further decline from 2022, although 28 companies made the leap into the public markets in 2023. Performance over the next several quarters alongside anticipated positive economic markets like federal interest rate cuts will determine if a greater recovery is on the horizon, though for now, the market remains quiet.

Life sciences VC exit activity



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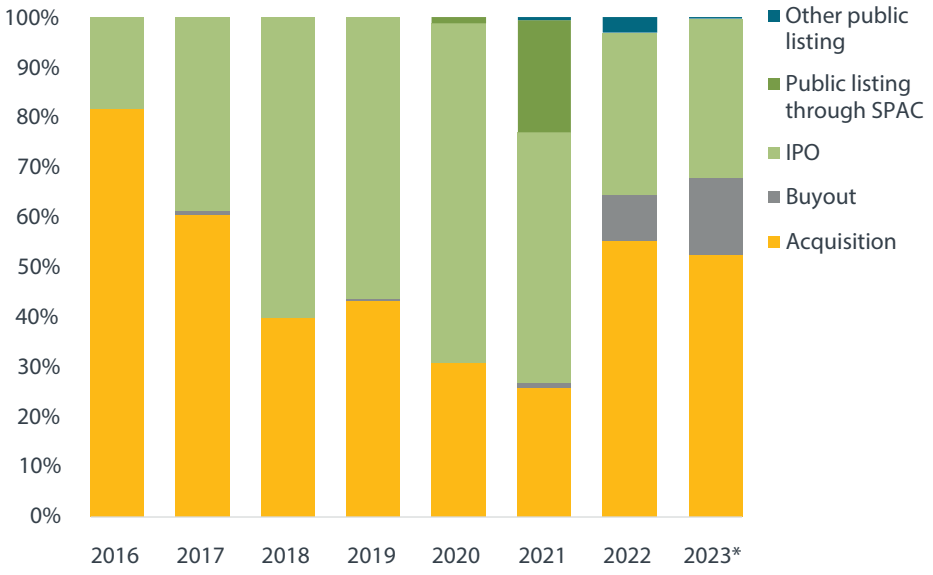
Share of life sciences VC exit value by type



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Roundtable

INTRODUCTION

Women's healthcare is going through a period of significant development, which aims to address persistent challenges in access and quality. These ongoing developments present intriguing investment opportunities in the field of reproductive health, which itself is experiencing an insurgence of exciting new drug discoveries, therapies, technologies, and evolving paradigms. In this edition, we speak to some of the key investors and innovators in this exciting space.

Panel

Contributors

Piraye Beim
Founder & CEO, Celmatix

Celmatix is addressing areas of high unmet need by developing the next generation of interventions and pioneering advancements in ovarian health. Celmatix's proprietary multi-omic ovarian health platform, the world's largest of its kind, is the foundation of the company's novel pipeline of first-in-class therapies.

Jill Angelo
Founder & CEO, Gennev

Gennev is the nation's leading virtual menopause clinic, providing accessible menopause expertise to women in all 50 states through its team of OB/GYNs and Registered Dietitian Nutritionists.

Anne Morrissey
CEO, May Health

May Health is developing a modern approach to treat Polycystic Ovarian Syndrome (PCOS) with a single treatment.

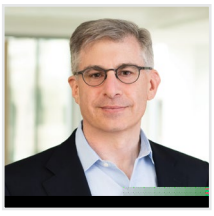
Sabriya Stukes
Partner, SOSV and Chief Scientific Officer, IndieBio New York

IndieBio is a start up development program of SOSV, a global venture capital firm providing multi-stage investment to companies addressing the biggest issues facing human and planetary health.

Facilitators

Thora Johnson
Partner and Co-Chair of Life Sciences Group, Orrick

Neel Lilani
Global Head of Tech Clients, Orrick



Stephen Thau
Partner and Co-Chair of Life Sciences Group, Orrick

in my own doctor's office, I often don't have the language to ask the right questions but have become comfortable speaking up for myself when needed. That's not the case for everyone.

Jill Angelo: Companies like ours have a dual role, educating as well as treating. At my organization, Gennev, we spend at least 50% of our time educating our patients, helping them understand what to be aware of, why it's happening, what kind of questions they should take to their healthcare providers, how they should disseminate the things that are trustworthy versus those that are not, etc.

Anne Morrissey: Yeah, I think it's interesting. PCOS, which is what we treat, affects more than one in 10 women. It affects them across their lifespan. It can be incredibly debilitating. Ultimately, our goal is to treat women even if they're not trying to get pregnant. It is a medical condition, and they should be treated for it, and them responding to a treatment will in turn help with their fertility. Long term, the big boulder that we're pushing up the hill is making PCOS recognized as a medical condition. It's better for the woman. It's better for the physician. But that's a long term proposition that I don't know that I could get investors to. It would be much harder to get investors to invest without the fertility aspect.

Sabriya Stukes: One of the nice things about working at a fund that primarily invests in companies that have biology and engineering at the core of their companies is that we understand science takes time and are in it for the long run. It can take anywhere from 5 to 10 years to see a return on our investment especially if it's in the therapeutics space. To your point, Jill, the amount of times I've heard male investors come up to a founder and say, "Does it really take five to 12 years to diagnose endometriosis?" and then also in the next breath ask "What is endometriosis?" is a lot and so they are spending precious time needing to explain the problem when they want to be talking about their solution. Many people also don't understand how these conditions can negatively impact a woman's quality of life. It can affect how she shows up to work, her community, supporting her family or simply how she moves through her own day to day.

Thora Johnson: Do you find it easier to talk about investments in women's health?

Piraye Beim: I'd really take it back to the broader feminist movement that has been happening during the past four years. Dobbs was a really sobering moment for people in the space, but the sea of change started around the time that we saw the #MeToo movement, and I think we've been riding that wave a little bit.

When I first started my company, I was 30 years old, and I had no idea how rare it was to be a 30-year-old female launching a biotech company. One of the anecdotes that I share a lot is that I ended up having to go to a makeup counter at Bloomingdales to ask for makeup that would make me look older. This French woman behind the counter was like, "I've been in cosmetics my entire career, and you're the first person in my life who's asked me to make them look older." It was because I had this realization that no one was taking me seriously in meetings. To Sabriya's point, I couldn't even get to the solution or the differentiation because I was spending a lot of time saying, "Well, here's an anatomical chart of lady parts and here are all the statistics about why you should care about the space." It was an uphill battle to educate people about the unmet need. 2022 was a milestone year for Celmatix, because it was the first year that we could remove an anatomical image of a female reproductive track from our pitch deck, because it was the first year that enough people had seen those images and knew what those body parts were that I didn't have to dedicate a few minutes of my pitch to educating people.

I think Dobbs, and some of the awareness and energy that went into the space around that time, certainly was a help. But I really think that the broader sea change has been riding kind of this wave of awareness that we aren't empowering female check writers and we aren't backing female founders. There's huge disparities in research. Women aren't in clinical trials. 2023 was the 30-year anniversary of the congressional bill that basically said, "You have to include women and minorities in NIH funded research." It's crazy that it's taken 30 years to start to see some progress, but it really has. But I would say the last two years have felt much more friendly to fundraising in the space than 10 years ago, for sure.

Sabriya Stukes: A lot of female founders say to us,"we didn't see anyone else doing it, so we did it ourselves." I do think there has been a galvanization of folks who are bringing the necessary people together and raising their voices to say we won't be ignored because the burden shouldn't be placed solely on women to make change in this space. This creates a ripple effect in how we invest not just in women but in women's health companies.

Jill Angelo: Coming out of the pandemic we saw the great resignation and women not coming back into the workplace. Oftentimes, it takes a bigger economic drought or gap to really drive not only innovation, but coverage. In the menopause space, it's one thing to bring a treatment solution to the market and another to actually get it covered by insurance or employers. This has been the real game changer for Gennev as we've continued our growth in supporting women in menopause. Women weren't coming back to work, so employers are then more motivated to cover what they must in order to support them.

Piraye Beim: It's worth mentioning that 100 years ago, the average life expectancy for a woman in the United States was 43. It's crazy! We only got antibiotics in the middle of the last century. We went from women living into their 30s and eventually their 40s to basically, in a generation, women living decades beyond where they had ever lived before. Menopause is a modern phenomenon in the sense that, because women's ovaries work until about their early 50s, most women died with a functioning ovary since the beginning of time. Now, not only are we outliving our ovaries, but we're outliving our ovaries by decades, and what that means is that we have not only more women in the workplace than ever before, but we have menopausal women in the workplace, and they're menopausal in the workplace for decades. I think it is so, so exciting to see the progress we've made with Gen 1 FemTech, as I call it, in destigmatizing conversations about fertility.

Neel Lilani: What are the biggest challenges that women are facing as they enter menopause while in the prime of their lives (both professionally and personally)?

Jill Angelo: If you're a woman in the workplace, you're not really motivated to go to your manager to say, "I've got some brain fog. I have a hot flash. I can't sleep at night, and my anxiety is off the charts, so it's hurting my job performance." That's not really a ticket to promotion or taking on the biggest challenge that the workplace has to offer you. You often say to women, and I've heard this so many times, "You need to advocate for your care." One study we did with Milliman, a third-party actuarial firm, surrounded the question of what the cost is of not treating menopause by the time it hits your benefit plan. We found in that study that women exhibiting menopausal symptoms utilize their medical benefits and/or insurance 47% more than those that do not. So if they're going to be using their care plans, get them the right care so that you bring those costs into a more controllable state.

The average age of our patients is 49; a perimenopausal woman. It's not someone coming to the end of her career. She's at the height of her career. So lifting her up is the big thing.

Piraye Beim: I once met a woman and was trying to educate her about HRT hormone replacement therapy and the impact it could have, and she said, "Oh, no, I'm on like six drugs already. I can't take another drug." And she explained that, when she got into menopause, virtually every aspect of her health had gone off the rails. She was on all these drugs, and she couldn't possibly add another one to the mix. Through the conversation we talked about potential root causes. HRT could have helped prevent some of this, and when she had that realization, she became emotional. She felt deeply angry that no one had educated her. She ended up with a heart stent, she ended up with elevated cholesterol, and no one had ever tied it back to the fact that this vital organ in her body was no longer functioning. It was just very sad and infuriating for her. A lot of people still think the only menopausal symptom is hot flashes, right? And I can't tell you how many women say, "Oh, no, no, I don't have menopausal symptoms," because they don't have hot flashes. "But my joints hurt. I can't sleep — I have brain fog. I can't recover from injuries as well. My immune system's trashed. You know, I have issues metabolizing glucose." So I think one of the things that we're really trying to do is elevate the role of the ovary as a vital organ. It's not just a reproductive organ. Every other organ in our body, we strive for its longevity: our teeth, our bones, our brain, our muscles. But the ovary, supposedly is a natural thing that it just stops working in midlife, and we don't do anything to try to optimize and extend its function.

Thora Johnson: It's essential to educate the providers. It's got to be part of the narrative. They aren't talking about HRT. And if you ask them about it, it's almost as if it's a weakness.

Anne Morrissey: I think we're at the beginning. Root cause is important to consider. I was talking with a physician about our protocol design for treating what we're currently doing. And I said, "Let's just make this as a treatment for PCOS." And he said to me (and this is somebody who's on faculty at a very prestigious medical center, and is in obstetrics and gynecology), "Well, we have treatments for PCOS." I asked him to tell me what they were. He said, "We have oral contraceptives." What is accepted even by medical professionals as solutions and as treatments are only Band Aids. Imagine having a treatment or a medication for PCOS that actually reaches the underlying cause. It changes the conversation.

Sabriya Stukes: It's possible that many women don't even know what their options are. One of the biggest points that I keep coming back to our founders on is that you could have the best technology in the world, but if no one's going to pay for it, or if no one knows that it exists, how do you get it to market and make sure it is accessible across a wide range of communities? How do we make sure that the tools, technologies and solutions are getting to everyone who needs them the most? There are many terrible things that you could hear in a doctor's office, but for me one of them is "We don't know what's causing you this pain." followed by "We do know, but we don't have a treatment for it."

The words "education" and "trust" have come up so much in this conversation which I'm so grateful for. There is no single solution that will solve the issue of mistrust in the medical community or the lack of knowledge around some of these

conditions. Still the more people talk about it, the more stories that are shared, the more information that is readily accessible the more agency and tools we can give to those who are searching for the right answers.

Jill Angelo: One thing that Gennev is really starting to do is partner with primary care physicians. The more that we partner and offer ourselves as a surround service that complements and augments existing physicians, the better. Because women so often are left to navigate alone after they hear so many answers that make them feel like they're being gaslit or unheard, or prescribed 12 different medications for a myriad of symptoms. So that's a big part of something we also have to accomplish.

Neel Lilani: In determining which indications to treat, what data are you analyzing and how are you obtaining that data?

Piraye Beim: Celmatix was originally founded as a precision medicine company, and the biggest gap was that we didn't have the data. We partnered with over a dozen of the leading fertility centers in the U.S. and had a multi center clinical research protocol where we would approach women when they came into the infertility clinic and say, "Hey, do you not like not having answers? You can help." Virtually none of the women who was approached for participation said, "No, I prefer not to." Patients were very, very willing to share their hemhare their erl.9 (ti, ₹(er)hi( )(w)W)52 (ef)8 (er not t)11 (o)x w (ef)8 (er not t)11 (o)xT a: emti₹w)3Nouswillin0hare their

fund females, because we can relate, and it's something that's very near and dear to us.

The other important thing, I think, is the new White House initiative around women's health. It's been promising that this idea of data collection keeps coming up as something that should be prioritized. Jill, I'm going to reach out to you about this data that you just shared, because I'm super inspired that you're collecting it. And that population level data, an academic isn't going to be able to tap into something like that. But that public-private interface between the data that we're all holding behind our proprietary, very safe server ecosystems or cloud ecosystems, and what an academic might be able to collect.

Anne Morrissey: I'm very excited about the new bill. Unfortunately, there's no funding attached to it. Our government has power to be the deliverer of the next wave of technologies by helping fund the basic science that actually needs to happen so that we can continue to develop treatments for all of these conditions.

Piraye Beim: Women's health lives within child health. They're combined like in the *Titanic* – women and children.

Jill Angelo: Going back to Thora's point around regulation, I think FTC and HHS regulation of securing this data is on the rise, and at an all time high and for good reason. I know we are preparing and speaking to them in ways all the time. You've got to have a regulatory attorney by your side in building your organization. It's yet another cost, but it's absolutely critical as data becomes so core to what we're doing.

Neel Lilani: What technologies and breakthroughs are you most excited about? What's next? What is the climate for exit for innovators in this space?

Anne Morrissey: I'm excited to see what the next five years bring in change. I'm also very excited about what we're doing here, running a clinical trial. We'll have data read out in a year and a half. The beauty of devices versus drugs: they're a little bit quicker.

Piraye Beim: It does really feel like there's a huge wave, and we're finally riding the wave instead of getting crushed by it. We have five innovative drug programs. We've only been able to announce three of them. But I think in the coming year, we'll announce the last two. One is an additional fertility treatment.

Sabriya's mentioned endometriosis many times. I have endometriosis. I'm on the board of the Endometriosis Foundation. That's another condition like PCOS, that impacts more than one in 10 women and touches virtually every aspect of her health. I really appreciate you all, shining light on this.

Jill Angelo: Over the next five years, what I'm most excited about is going to be value-based care. If you are getting at the root cause of a woman's issue in menopause, or with PCOS, or endometriosis, you are effectively cutting out unnecessary costs. And you're improving health outcomes. I'm really excited about that.

Sabriya Stukes: I am very excited about writing more checks into both women's health companies and female founders, because I know that is a huge bottleneck when it comes to getting some of these tools and technologies into the market. I'm also excited to see more therapeutic modalities come out to address women's health issues so that we can both diagnose and subsequently treat these kinds of conditions. There is something to be said for investing in a company at the earliest stage of their development, helping them grow into the billion-dollar company and knowing it has the potential to positively impact over a billion people as well.

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