



ImmunoPrecise Antibodies Ltd. NasdaqGM:IPA

Earnings Call

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Call Participants

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Presentation

Operator

Good morning, and thank you for standing by. Welcome to ImmunoPrecise Antibodies Second Quarter Fiscal Year 2023 Earnings Conference Call. Also on the call with us today are Jennifer Bath, Chief Executive Officer; Brad McConn, Chief Financial Officer; Ilse Roodink, Chief Scientific Officer; and Barry Duplantis, Vice President of Client Relations.

Before we get started, remember some statements we make today may be considered forward-looking statements for the purposes of applicable United States and Canadian securities laws. IPA cautions that these forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those indicated in the forward-looking statements.

Additional information about these risks and uncertainties is included in our SEC filings. IPA undertakes no obligation to update these forward-looking statements, except as required by law. On today's call, non-GAAP financial measures may be used to help investors and analysts understand IPA's business performance. We refer current and potential investors to the forward-looking information section of its management's discussion and analysis issued today at www.sedar.com and on EDGAR at www.sec.gov. With that, I'll turn the call over to Dr. Bath.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

Thank you, Dennis. Good morning, everyone. I'm glad that you were able to join us today. We're excited to share with you IPA second quarter updates and our progress toward achieving our strategic goals for the fiscal year, including the steady growth of our revenue, driven by our expanding client relations team as well as milestone achievements with our in-silico platform from our newest subsidiary, BioStrand. With several goals in mind, the company recently announced its voluntary delisting from the TSX Venture. These goals include creating a central market for its common shares on the NASDAQ, enhancing long-term liquidity and shareholder value, lowering administrative and legal costs, saving time and harmonizing reporting requirements.

Finally, we believe that delisting from this exchange makes it easier to reach institutional investors who are prohibited by compliance from investing in such exchanges. IPA is considering a shift in its corporate offices as a complement to a recent delisting from the TSX Venture. While the exact potential location has not yet been selected for shareholder approval at a future special meeting of shareholders. Some of the key location characteristics being considered include a U.S. location with access to high-performing workforce with relatively low average wages, a region with expanding technology-based businesses that is complemented by numerous business incentives and easy access to government officials, highly competitive cost of business operations and a highly educated workforce. This quarter, we look forward to keeping you informed of any developments relating to this particular update.

As we approach the end of this calendar year, we are focusing on accelerated revenue growth and sales integration of our in silico capabilities. This year, we're also reflecting on market conditions and our historical performance as we strive to maximize shareholder value in 2023. This graph compares IPA's year-to-date share price change to that of independently selected competitors as reported by NASDAQ with these figures as of Tuesday, December 13.

While we have maintained shareholder value in a difficult market, especially as compared to our peers, we are far from satisfied. With regard to shareholder value and corporate growth, we have set immense goals, and we are committed to working tirelessly until those are executed. We are not intimidated by the current market conditions but rather energized and inspired by the opportunity to significantly outperform them. Elaborating on our most recent press release, the emergence of Meta's ESM Fold 2 and DeepMind's AlphaFold AI-driven predictive platform, recently opened the door to the world of structures and their impact on drug discovery.

Irrespective of their precision, these platforms provided us with a novel visual representation of sequences and their uniqueness. Having fully integrated these 2 platforms into our end-to-end in silico discovery workflow, we have saved an appreciable amount of development time and cost. The timing of these platforms with Fortuitous having recently launched our structural hip, which will help explore formal and explicit biologically relevant and hidden knowledge drawing upon our hip technology, which cannot only connect sequence to structure and function but also link those sequences to structure and structure to many types of textual information such as scientific papers and also medical records.

These multi-multi-structural capabilities are unparalleled and have the potential to greatly speed up drug discovery. From a commercial perspective, we started integrating BioStrand's cutting-edge AI technology into our global fee-for-service offerings this quarter, creating unique and silicon capabilities to expand our platforms for next-generation antibody discovery and development.

These in silico services show quick turnaround times that result in faster revenue recognition, excellent profit margins and a competitive edge, thanks to our unmatched data output. One of the examples in the new in silico offerings is the recent client access to our in-silico immunogenicity screening service, which enables clients to quickly and affordably predict which these candidates may be immunogenic when administered to patients. It offers insights into which patients specifically based on their genetic background are most likely to experience an adverse event and determine which lead candidates are most likely to be safe in the majority of the population.

In order to prevent unfavorable side effects, this information may also help drug sponsors decide which patient population should be selected in a clinical or commercial context for a particular therapy. This and other new AI services have not only been launched but have also controls and by select clients as extensions to their current programs and will soon be available for all to view on our updated website.

With that, I will turn the call over to our Vice President of Client Relations; Dr. Barry Duplantis.

Barry Neil Duplantis

Vice President of Client Relations

Thank you, Jennifer. This quarter, IPA grew its sales team in key geographic areas. I'm pleased to report that a new Director of Client Relations started with us shortly before the end of Q2. This new addition is covering CRO service sales in the San Francisco and Pacific Northwest region and brings with her years of experience serving clients from past antibody service sales and project management roles.

In addition, the IPA has received a signed commitment from an East Coast-based Senior Director of Client Relations set to join the team in early calendar year 2023. This individual has an impressive background in antibody discovery while also possessing firsthand knowledge of client needs and expectations. The San Francisco and Boston regional markets have always offered significant market potential for IPA, and we look forward to the impact these 2 key hires can bring IP in the future. Last quarter, we spoke of a significant increase in Q-over-Q sales orders.

Those sales orders have helped drive a 9.8% increase in revenue of Q2 over last year. They've also yielded record quarters at both IPA Canada and the Utrecht sites. The Canadian site also posted a single monthly revenue record reporting over \$844,000 in October, and we're optimistic for continued growth with strong revenue trends continuing through November. These results are primarily driven by a continued and growing interest in IPA's memory B cell selection workflows, particularly IPA's rabbit B-cell platform, while the Utrecht site is beginning to take advantage of their increased capacity following a seamless move to their new facility, which Jennifer will expand on later. We've also recently announced that IPA's BioStrand subsidiary has signed a research collaboration and license agreement with a clinical stage bio company, BioStrand. The research collaboration is based on BioStrand's ability to develop clinically relevant antibodies using its multifaceted in silico HIF-based platform.

Due to the unique nature of BioStrand's therapeutic discovery potential, we're happy to announce this is the first non-fee-for-service based discovery program run by a service-based IPA subsidiary. While the fee-for-service models have served IPA's traditional wet lab services very well, the fiscal benefits of using an in-silico discovery workflow, asset ownership retention until certain contractual requirements have been

met and the potential back-end value of the program make for an incredibly attractive business model available to BioStrand's technology.

Lastly, we'd like to turn our attention to the growing market of wind proteins, where IPA Europe's Utrecht campus is occupying a rapidly growing niche with an exclusive product arrangement and IP protection. An organoid is an in vitro 3-dimensional replica of an organ that has been scaled down and simplified to display accurate microanatomy and they are increasingly valuable model systems for human biology. Wind surrogate is a protein that is required as an organoid growth factor.

IPA has seen an uptick with our wind surrogate production and sales at our Utrecht site, which is consistent with our views that the organoids market is rapidly growing and demand for growth factors continues to increase. According to a vision's research reports, the global organoids market is valued at over USD 2 billion in 2021 and is predicted to reach well over USD 12 billion by 2030 at a CAGR of 21.58% during that time frame. With UPs move to the new accelerator building, the company is well equipped to meet the rapidly growing demand.

I will now turn the quarterly updates over to Dr. Ilse Roodink for IPA's Chief Scientific Officer.

Ilse Roodink

Chief Scientific Officer

Yes. Thank you, Barry, and Good morning all. As recently announced, IPA's subsidiary Talent Therapeutics entered into a strategic collaboration with Ligand Pharmaceuticals' new subsidiary, OmniAb, expanded the ongoing relationship by further developing 3 antibody programs with validated immuno-oncology targets. Under this agreement, Talem will lead the progression to clinically suitable molecules by combining their expertise with IPAs LENSai in silico technology to advance out-licensing and commercialization of these 3 human antibody therapeutics. Immuno app and Talem will share certain research costs of each program and are eligible to receive shared downstream economics upon potential out-licensing or commercialization of each program. We believe that the application of our in silico analysis has the potential to greatly enhance the quality and value of these programs as it does for any discovery preclinical or clinical program.

During our last earnings call, we announced the maintained efficacy of PolyTope, Tyler's first generation 4 antibody combination therapy against the SARS-CoV-2 variants, BA.5 and BA.2.75. We are very delighted that NIAID has agreed to include our product in their regular literalization screenings of clinical and authorized antibody therapies towards emerging variants. This demonstrates NIAID's recognition of the exceptional resilience of PolyTope in maintaining effectiveness against variants to date.

We have also had ongoing conversation with NIAID on clinical trial support 2 mechanisms facilitated by NIAID. We are pushing for the first patient doses of PolyTope in the spring of calendar year 2023, and accordingly, we have engaged a global clinical trial CRO named Celsius to support us with clinical development of dial Celsius was selected based on their experience and constructive interactions as well as the results of an independent audit at IPA's request.

Celsius is involved in the finalization of the study protocol to evaluate the performance of PolyTope in humans and will prepare other documents required such as manuals, patient information and patient informed consent. And Celsius will, on behalf of us be responsible for clinical site monitoring regulatory safety and data management and logistical aspects transferring the drug product and clinical samples. To date, we are pleased to state that the production of the final drug substance having completed and the filing of the drug product and placebo are in the final stage. This slide summarizes our pulp and ongoing task towards regulatory submission for clinical trial approval. With the continued mutation of SARS-CoV-2 resulting in highly politicized dropout authorized therapies, there is a growing need and interest for more sustainable and broadly efficacious product. This unmet need has been recognized by health and regulatory authorities as well.

As such, the FDA and EMA organized a joint workshop that takes place a day, IPA was invited, along with a handful of leading pharmaceutical companies who previously had effective anti-SARS commercial therapy that have lost regulatory support to join an additional working group leading up to the final workshop.

The aim of the working group is to identify alternative strategies to expedite testing of effective antibody therapies targeting new SARS-CoV-2 variants to align our perspective regarding possible regulatory relations for clinical development and to prepare a joint presentation to the EMA and FDA at the workshop.

Building on our lead with the readiness of our drug product, while others are back in the development phase as well as a very favorable earning potential of infectious diseases, disease assets in general, put Talem in a good position for partnering and out-license discussions for PolyTope in particular with human safety data on the horizon.

From an intellectual property perspective, we are pleased to share that we have received very promising feedback from the examiner regard our U.S. national patent for PolyTope and expect that its granting is close. As discussed during the last quarterly update, Talem has combined lead candidates from 2 oncology programs into a bispecific therapy to create a potential best-in-class [indiscernible] T cell engager that has now been proven to recruit and activate T cells in vitro. Of interest, it was noted that T-cell activation by our bispecific candidates differs from that of a chosen benchmark, commercial benchmark.

We believe that these differentiating properties open avenues to develop safer and potentially more effective oncology therapies and underscore the first and best-in-class potential of these candidates. We have filed provisional patents for each of these programs, including [indiscernible] T cell engagers, having established priority days for these programs allows us to create more visibility for these assets publicly greatly benefiting our ongoing partnership discussions. With this, I would like to turn the call over to Jennifer to discuss updates on our facilities.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

Great. Thank you, Ilse. As a result of meticulous relocation planning, IPA's Utrecht team executed an extremely smooth transition to the new accelerator facility in October and quickly ramped up production to seamlessly serve clients. Lab floor space has doubled and new equipment and staff additions are in place to support the increase in production capacity afforded by this move. The new facility will also allow the Utrecht team to add new services, including the expansion of offered biophysical characterization assays. In fact, even in the short period of time since the expansion, we have witnessed an appreciable revenue gain from the new facility offerings as will be highlighted next by Brad McConn.

Brad McConn

Chief Financial Officer

Thank you, Jennifer, and good morning, everyone. I will provide an overview of our financial results for the second quarter before touching on our financial position as of the end of the period. As a reminder, all numbers I referenced are in Canadian dollars, unless otherwise noted. Before we dive into commentary on the financial results, I briefly want to touch on the change that we made to the organization of operating expenses on our comprehensive income statement.

We've updated the classification of our expenses to be organized by function as opposed to our previous presentation by nature. The 4 functions you'll see this quarter and moving forward are research and development sales and marketing, general and administrative and amortization of intangible assets. I want to touch specifically on the research and development function and note that it includes compensation expense related to research, including share-based compensation, research supplies and materials, service contracts for research projects and allocated depreciation.

We feel this organization provides increased visibility into the cost structure of the company and much improved comparability to our publicly listed peers. Turning to the financial results. IPA recorded total revenue of \$5.2 million during the second quarter, a 9.8% increase from \$4.7 million during the second quarter of fiscal 2022. Barry previously mentioned record quarters at both Victoria and Utrecht and both achieved greater than 20% revenue growth compared to Q2 of last year.

Gross profit for the quarter totaled \$2.8 million, an increase of 7.9% compared to the same period last year. Gross profit margin of 54% is a slight decrease from 55% in fiscal 2022. Our increased cost of sales is primarily attributable to increased salaries and benefits and lab supplies allocated to projects to support

our increased revenue, along with some small effect of inflation on the cost of supplies. Moving to our operating expenses. Research and development costs increased to \$4.6 million from \$3 million during the same period last year.

The majority of research and development costs related to the clinical manufacturing of the PolyTope antibody combination therapy, which totaled \$3.7 million during the quarter. Other notable expenses include \$0.3 million in compensation expense and \$0.1 million in depreciation allocated to R&D. Sales and marketing expense totaled \$0.8 million during the quarter, an increase of \$0.2 million compared to fiscal 2022. This increase is attributable to additional advertising expenses, compensation expense and consulting costs.

General and administrative expense was \$4.3 million during the period compared to \$3.1 million in fiscal 2022. Salaries and benefits increased \$0.4 million and management fees, \$0.3 million, primarily due to the addition of staff at BioStrand and some routine pay increases. Office and general expenses allocated to G&A increased \$0.1 million. Consulting fees increased \$0.6 million. Lastly, share-based compensation decreased \$0.4 million year-over-year.

Finally, amortization of intangible assets increased \$0.4 million due to intangibles that we recorded for the acquisition of BioStrand. Other income totaled \$0.3 million during the second quarter of fiscal 2023 compared to a loss of \$0.1 million during the same period last year. The largest variance to note is an increase in unrealized foreign exchange gain of \$0.4 million compared to the second quarter of fiscal 2022. All total, IPA recorded a net loss of \$7.4 million during the second quarter of fiscal 2023 compared to a net loss of \$5 million during the same period last year. As previously highlighted, the major drivers of the increase in net loss include increased investment in research and development activities and increased G&A costs. Moving to the balance sheet. IPA held cash of \$15.1 million as of October 31, 2022 compared to \$30 million as of April 30, 2022. Cash expenditures totaled \$5 million during the 3 months ended October 31, 2022, a reduction from \$10.6 million in expenditure during Q1 of fiscal '23. The cash used in investing activities include \$0.8 million in the purchase of equipment and \$0.7 million for the first deferred payment for the acquisition of BioStrand. Cash from financing activities includes an outflow of \$0.6 million from lease payments, offset by inflows of \$0.6 million from the issuance of shares due to option exercises. With that, I'll turn the call back over to Dennis for the Q&A session.

Question and Answer

Operator

[Operator Instructions] And your first question will come from the line of RK with H.C. Wainwright.

Swayampakula Ramakanth

H.C. Wainwright & Co, LLC, Research Division

And congratulations on a very successful quarter. In terms of -- I have a few questions, so I'll just go one by one. In terms of the revenue trajectory, which we are seeing, it turn is moving in the right direction, and it's very encouraging. In terms of the resources that you are adding in Europe to offer increased quantity and also quality of services. What do you -- what are your expectations in terms of the growth in the project revenue from these additions? And what percentage of -- what percent growth in project revenue would make you and the team comfortable, especially going into fiscal year '24 and beyond.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

So with regard to specifically the growth and added space, we've taken on in Europe and then also with regard to the additional company in Europe. I can touch on that from a couple of different perspectives here. So the first one I'll start with is the expansion of our space in Utrecht, where the majority of the expanded space is actually ROI-generating space. And we're looking for a couple of areas there where we have specifically focused on for increased revenue, not only ability to take on more programs because that site has been at maximum capacity for probably about half of the previous fiscal year.

But in addition to that, to be able to take on certain types of programs that we've had to decline historically, because of needed additional footprint to be able to house some of the equipment that we now have purchased since the move. So some of those include extremely high throughput, small-scale protein production from some of the large pharmaceutical companies in that region who have a very particular need for that and have inquired specifically about us filling that need. And the other one is exactly the opposite.

It's extremely large-scale manufacturing in which we have received numerous requests over the most recent months here to produce both proteins for outsourcing to a large companies interested in reselling those products for us. So we're looking forward to the continued growth at that site. It's already kind of beyond our expectations after just having moved 2 months ago. And we believe that revenue trend will continue there.

As Brad stated, it's already 20% year-over-year right now. So what would we anticipate or forecast on officially going forward and expect -- I would expect that to at least double in size for that particular location with regard to the particular types of activities I just mentioned. With regard to BioStrand, as you know, BioStrand is still a pre-revenue company. We anticipate that to change relatively quickly. As mentioned, we have put out these offerings for fee-for-service work. That's just been on a face-to-face one-to-one offering with clients we're in communication with. It's not something that's been wide-scale offered or is available on our website at the moment.

These are wet lab capabilities that are still running fee-for-service. But as I mentioned in the call, they are different than our existing wet lab services in the sense that because they do provide results relatively quickly depending on the offering anywhere from 12 hours to 3 days as opposed to several months. We obviously anticipate much faster revenue recognition. The profit margins are also significantly higher than our existing profit margins. We definitely anticipate that site to be revenue generating in the very new future -- in near future.

What we're really -- what we'd really be happy with that site is to see some of the revenue generation, not just from those fee-for-service program. but from the de novo in silico programs, such as the one that was just agreed to with Bristol. We are anticipating closing several more of those this year. And so ideally, we

would see some of those upfront payments rolling in, which range anywhere from \$500,000 up to several million dollars, depending on which company when hit those milestone goals.

Swayampakula Ramakanth

H.C. Wainwright & Co, LLC, Research Division

Just to follow up on your last set of comments. And at a high level, those offerings within that AI-based products is basically to kind of test the market and see not only assessing your ability and successful delivery of whatever the objectives are for the client, but also kind of to tweak your product in such a way that you can offer it to all the current plants and also to prospective clients. So for that -- for you to get to that level, what is the sort of time line that you're wanting within your teams to deliver? And also, I know it's very difficult to figure out what part of growth you'll in there. But for people like me who kind of think about numbers, how should we think about that? So if you can comment a little bit on the timing whatever you can give at least qualitative statements about growth expectations.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

Absolutely. So with regard to those offerings, which I just mentioned, we actually do include expected time lines in those agreements that have been drafted for those clients. So one thing I'd like to point out is with these groups that we have gone out to specifically, we went to 4 groups, this is something else that -- or 4 different companies. This is something else that we have not offered on our website or been very public about.

And with respect to these particular groups, what we offer were for unique packages that we anticipate will become the future standard de novo and silico offerings at BioStrands -- and with regard to those, we've given very specific time lines for the anticipated output of in silico sequence products. And every one of these packages on our early adopter program, as I mentioned, are slightly different. Some of these groups will be required to make an upfront payment as soon as an in silico product is generated, whereas others are based on actual validation of the product being able to do something most commonly a functional tests.

The anticipated time line, I would say, average, that's been given for the in silico work is about 4 weeks. The anticipated time line for follow-on proof-of-concept work from the actual product produced from the in silico sequences 4 to 6 weeks. So for the majority of programs, we would anticipate that we would see some revenue generation somewhere between 8 to 10 weeks after starting a program with these groups. And that first initial payment laterally becomes what we're referring to as the upfront payment to actually be able to receive the sequence and the product that's been tested.

Swayampakula Ramakanth

H.C. Wainwright & Co, LLC, Research Division

In terms of the commentary that we heard today on the organized business and how that could be growing quite rapidly in the R&D. Certainly, you've seen in the literature, -- but how is that really translating into the wind protein sales because even though quarterly on a quarterly basis, it's certainly growing, but on a yearly basis, it seemed like it declined a bit. I'm not trying to make a big fuss about it, but I'm just trying to understand, is there some anomaly between last year and this year? And what -- what has changed? What are the expectations for this year and next year?

Jennifer Lynne Bath

CEO, President & Non-Independent Director

That's very observant on your part for our product sales year-over-year. And so a couple of clarifications on that when we break down and look a little bit more closely on our product sales. So the wind protein is actually our bestselling off-the-shelf product coming from our Utah facility. And as mentioned, by Barry, it is something that we have exclusivity to an IP protection around. To wind protein is interesting in the sense that our primary buyers for that protein are ones who are seeking to include that in growth media for these organoids and also large-scale contracts to be able to turn around and actually resell the wind protein. So that needs to, in those particular cases, be bought in bulk so that they can be sold

competitively still on the market. With regard to any sort of decrease in product sales, that's because when we provide our product sales numbers, we actually do it in the Netherlands. And as of this year, the group that routinely plays in order for that particular product has not yet placed an order, even though we still anticipate them to do so because they've been a regular client.

So that dip is actually not something that pertains directly to the wench protein. And so going forward, we actually do anticipate that in protein to take over more and more significant share of the off-the-shelf product. And that's in part because what we're beginning to see is more and more groups wanting to be able to come in and get access to that wind protein because of the quality of that protein, the stability of the protein and the increased activity of that wind surrogate protein reported by several different larger technology companies compared to some of the standard wind proteins that are otherwise available on the market.

Swayampakula Ramakanth

H.C. Wainwright & Co, LLC, Research Division

What is there in the product set -- so one final question from me before I step down. On -- in terms of the talent, we see -- it's obviously very encouraging to see TaxOX3 able to neutralize even the latest mutant of the virus. Holler is this -- how big of a commercial opportunity do you think this is especially when you would be coming into the market, at least 2 years down the line, if not more. And with the virus mutating all the time, do you think the structure of your antibody is such that it can capture whatever mutants comes down the pipe. So that's one question. And the other question is on the oncology offerings. Are those more for you to out-license? Or are these products more for similar to what you're doing with catering the sense at least initiate phase data and then go to the market for out-license.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

Okay. Yes. So starting, first of all, with the PolyTope program. So I think one of the first things to always cover is the fact that we absolutely don't see Sars-CoV-2 going anywhere. -- just based on the science and what we know about virus evolution and its ability to continue to adapt. With regard to the relevance of our poly charge, we actually believe that we're in a better position than we ever could have. We were so, I think, specific from the beginning and saying we are not going to be the first out there.

But our intent is obviously to build something that has sustainable efficacy so that eventually, when we predict others will need to go back to the drawing board because they will lose efficacy that we will retain that efficacy and eventually take a full position in the market because we never had to go back and reset our time lines and reset our strategy. And so today and kind of going back real quick to one of the things that also mentioned, here we are sitting in working groups with these large pharmaceutical companies that did get products out there that did have commercialized products with emergency use authorization.

Many of the products that only lasted a couple of months actually in that commercial setting. And then we're no longer efficacious due to these mutations. -- and lost, obviously, the regulatory approval and so had a relatively short time frame with regard to commercial benefits. From our perspective, the probability of our program, of our products staying efficacious and having a much longer-term window in a commercial setting is probable. And the reason why we say that is because we have all of our historical data and based also on the scientific way that we actually constructed PolyTope it was actually designed to do exactly that. So we are, at this point in time, the only first-generation therapeutic that has retained efficacy for all of the variants of concern that have emerged. And we retained that efficacy within a relatively small window of potency. So while we've watched all these commercial products dropped off, we have sustained that efficacy, and we have continued to move forward.

And it's that historical data that gives us the confidence that we're likely to move forward under those same exact conditions because it hasn't mattered whether it's a parental virus variant that continues to pick up mutations or it's a new virus backbone with many more mutations that has been emerging. Another thing I think for people to keep in mind when they think about the potential sustainability of polytope -- it's not just that historical information we rely on, even though we've never had to swap to date any of the product out of that combination therapy to retain efficacy, in part because even if one does

reduce in binding our efficacy on its own, we have synergy built into that, that we have demonstrated. And so the other antibodies are retaining that efficacy for us.

But we did build in a backup option should we ever actually reduce significantly in efficacy, which are the backup bins that we've talked about historically, our plug-and-play options. Those plug-and-play auctions would allow us should we ever significantly decrease in efficacy to slide over in one of the regions where we may have decreased in efficacy with an antibody that has been optimized for binding in that particular region, but a boys and epitope that may have been mutated.

And one of the reasons why we have felt some of our conversations with one of the regulatory authorities involved in the process of giving us feedback and making the final approval for this product that has been so encouraging is that they've actually encouraged us to go ahead and consider trying some of those backup antibodies in the clinical setting, which is actually incredibly encouraging. So we have this first line of defense that just hasn't been broken.

We're the only group with that first line of defense that hasn't been broken. And then we have a second line of defense that we feel quite confident with. And this -- one more thing to mention with regard to how we constructed that, that I think is also really important to keep in mind is that a lot of the new mutations that are occurring are mutations that are cropping up in people who have reduced or inadequate immunity to the virus. So people who might be immunocompromised people that were not vaccinated. That has already been demonstrated to be one of the areas where we see an increase in these mutations occurring and then those novel variants of concern beginning to spread.

And another way that we had another reason we had built in to PolyTope different safeguards with having synergy with having Fc function activity and also with the 4 antibodies in the combination therapy is under the premise that we may be able to stop a novel variant of concern with new mutations in a patient from continuing to replicate and continuing to spread. So it could actually be a novel and efficacious way to actually prevent the spread of new variants of concern and prevent them from emerging in populations in addition to being able to treat patients prophylactically and therapeutically. That's where our real confidence in this is coming from. And with these working groups also mentioned, it has been clear to us that we really are in a pull position and the other groups really have had to go back in recent months to redefine and rediscover new molecules. With regard to the oncology programs and your question regarding those and in particular, with our bispecific T-cell engager, we do not anticipate taking those into the clinic.

We built these particular programs based on unmet needs in the market based on really attempting to be best-in-class products in the market. Actually, that particular T cell engager is probably the hottest asset that we have on our books right now, and it is something that we do intend to out-license and then collect additional downstream milestones in royalties for.

Operator

Your next question is from the line of Michael Freeman with Raymond James.

Michael W. Freeman

Raymond James & Associates, Inc., Research Division

I wonder as it relates to the Bio Strand offerings and the general sort of in silico offerings that you are rolling out. I wonder if you could provide sort of a high level -- your high-level thinking on how that offering will be stage gated from being sort of an internal development to early adopter phase rollout to being more available to clients broadly. If you could take us through that process and your thinking.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

So as I mentioned a little bit earlier, we started with limiting who we went out to share these opportunities, specifically for the de novo in silica programs. And we did so based on wanting to offer these early adopter basically pricing, but in return for an AP and return for our ability to collect that information and use that information also in a blinded manner to go out and also show proof of concept

of our capability to other companies when we were ready to do so. And so what we really wanted to start with was, let's find some of these groups. We have very good relationships with already, but we also have insight into what they've been working on for the last multiple years. What's been their pain point, what's been that program. They couldn't be successful with historically with other CROs and with other partnered programs and really demonstrate to them how we can conquer these challenges that haven't been conquered by more traditional methods.

And so with those particular groups, we decided to stop with the outreach with just those for particular groups and not further specifically so that we could continue to optimize our algorithms so that we could adjust if we saw any areas that we felt needed improvement. And so that we could utilize all of the sequence information coming in from those programs to also feed our algorithms as our AI would enable it to continue to collect statistical data and improve. We anticipate that it's probably 2 to 3 months before we go out with data. And again, it really depends on how these programs go from a time line perspective and a quality perspective. But to be able to start using some of that data to go out and share with other groups, probably again for several months on a face-to-face one-on-one offering with various groups. And I would anticipate -- and again, there's caveats there that make it difficult to exactly pinpoint. But not until we've had a total of 5 or 6 successful programs through there that we would open this up on math to larger offerings.

That being said, the offerings that we've gone out through for right now for these 4 groups are 2 smaller biotech and 2 very large, more like top 10 pharmaceutical companies. And what we anticipate and what's also been indicated by those larger companies is if we were successful with these programs for them, they would likely be interested in taking on larger target deals to use up the capacity that is available at BioStrand with a larger upfront payment. So whether it's more companies are just more programs, we'll have to see. The overall time line for that, if we had to put an estimate on it, it's probably around 8 months.

Michael W. Freeman

Raymond James & Associates, Inc., Research Division

And I'm glad you provided that detail of 2 small biotechs and 2 large biopharmas, I guess. I get -- and this is a nice thing to my next question. We were glad to see that you were able to publicly announce the name of your -- the partner that you're working with in SL. We recognize that you are partnered with a high-quality group of partners through the historical CRO business and your other businesses? Do you expect you will be able to announce the names of partners that you work with in the future? This is helpful to understand the pedigree of groups that are attracted to the offerings we have.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

Yes. Great question. So right now, as a part of the early adopter program, it is actually a requirement that we have written into the 4 different standard agreement options. So right now, we do have approval from those groups and the 3 remaining groups that if those agreements go through, we would be able to share their name publicly. There is one-time consideration for one of those groups who said we are currently working on something that's very important that would suggest that maybe not releasing our name right away would be pertinent.

But that time frame is possibly 1 to 2 months old. So if that deal closes prior to that particular significant event changing for them, then we would make the announcement without the name and then follow up on the first event with that program with the name on the contrary, if their personal big event for them occurred prior to signing the agreement, we would be able to announce it. So short answer is that yes, it's been written in definitely for the 75% 3 of the 4, and the name will be out there in the initial announcement for one it may trail slightly.

Michael W. Freeman

Raymond James & Associates, Inc., Research Division

Fantastic. Well, we'll watch the news wire to see those names now.

Operator

Your next question will come from the line of Will McHale with Ingalls & Snyder.

William Campbell McHale

Ingalls & Snyder LLC, Research Division

I am delighted to see the progress at BioStrand so far with partnership agreements. I was hoping you could explain what specifically about the technology is resonating the most in discussions? And how it might be differentiated from other offerings out there?

Jennifer Lynne Bath

CEO, President & Non-Independent Director

So as I mentioned a minute ago, we had offered these 4 different companies from smaller well-funded biotechs to top 10 pharma participating in this early adopter program. And during the due diligence process, what really became evident for these companies going into due diligence, especially the larger ones was really what was kind of driving their excitement around these particular programs and why they came to us in general. And one of the more common themes here is the potential for Lend AI software to analyze and solve these very complex programs that couldn't be achieved with those traditional laboratory settings. And in addition to that, we saw a number of programs that reflected therapies that these groups have been working on for close to a decade that never had a success.

The -- a lot of the enthusiasm, which I think is also of note, has been around the concept of the hip and the uniqueness of the hips as a distinguished and differentiator from our competitors. In fact, the 2 larger pharma companies that we've been working with have gone into a pretty significant due diligence on that and really wanting to understand how the hips really drive that differentiation. And it's garnered quite a bit of excitement around how the hits drive the algorithm-based exploration and their potential to be able to identify these relationships that a traditional AI and ML supported codes being used by other companies don't have.

And so I think that's actually been -- where quite a bit of the interest and differentiation has come in is around the uniqueness of the way that we have a real true discovery backing the development of these codes and the fact that for them, that concept of a shift and how that it relates to what we understand about evolutionary biology is very tangible and very directly related to their experience in biology -- let's see, Will, I apologize. I don't know if I answered all of your questions. So...

William Campbell McHale

Ingalls & Snyder LLC, Research Division

I guess then I also wanted to ask just sort of looking back over the course of 2022, multiple members of the management team have bought stock in the open market and pretty consistently throughout the year. So I was curious to just hear from you guys what most excites you about the IPA investment case going forward.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

Yes, absolutely. So yes, you know that we are really excited. And part of it really is because all along, will we have had this really a magnificent vision for IPA. Our strategic goals every fiscal year have been aligned toward that vision. Many of the milestones that we have accomplished in the past couple of years were built specifically toward our vision of fully integrating digital fully being -- I'm sorry, a fully integrated digital technology company that's able to solve the most complex personalized medicine challenges. And I think also importantly, on an unprecedented time line and budget. And so for years, we have emphasized increase in our discovery program throughput and then accordingly, also the optimization of antibody sequence outputs from our lab, standardizing those workflows across all of our locations. We focused on high throughput NGS or next-generation sequencing capabilities.

But more specifically, we built a digital pipeline to line large, multi-species sequences and structures with amplified functional diversity. And then another milestone we had built into that was we coded

algorithms to -- and this is outside of BioStrand. We coded algorithms to augment our ability to mine and formalize and perform deep sequence analysis while building a repository for all of the data. So our ultimate aim was to apply this information to the right tool when that tool was identified with the ability to continuously learn from an AI or ML perspective and then to apply the knowledge gained from these collection processes.

And that tool is now our Linde tool that we acquired through Bio's trend. So going back more specifically to your question, during the past 3 to 4 months, our excitement is definitely palpable in particular amongst the management team because we're starting to see very real-world examples of how we're able to process and interpret these informative models to solve real and complicated life science problem.

And not only do we see our vision now starting to come to fulfillment, but it's also being accomplished on a time frame that accelerates some of our more lofty ambitions around the de novo and silico discovery and development, which is actually the foundation of the application supported by the BriaCell deal that we've been discussing and then some other similar discussions. So in essence, really, we see strong concrete signs that our vision is rapidly unfolding that the pieces of the puzzle that we've been strategically constructing over the past couple of years are coming together. And the potential that it generates is at the root of our enthusiasm and our excitement. So I think going forward, we're most excited to demonstrate the power of our algorithms to solve these challenges for our partners. And then, of course, along with the anticipated revenue generation that could result from these accomplishments.

William Campbell McHale

Ingalls & Snyder LLC, Research Division

Great. It seems like the scientific achievements are really on the verge of producing some pretty exciting financial performance as well.

Operator

And at this time, there appear to be no further questions. Dr. Bath would you like to take over for closing remarks.

Jennifer Lynne Bath

CEO, President & Non-Independent Director

Yes. Sure. Thank you. All right. So first of all, I wanted to start by just talking a little bit about the fact that we have accomplished a great deal in developing and integrating these new technologies to drive our commercial potential. We've also been successful in recruiting and assembling a world-class team, which continues to execute on our stated objectives to achieve new heights in terms of our commercial goals. All of this was accomplished also while delivering on our partnerships and signing our first extended revenue potential deal, which is the in silico licensing agreement with Brose.

We are confident, and we remain confident in our capacity to continue acquiring new in silico partners and programs this year as well as our potential to realize revenue through comparable agreement structures through our Talem Therapeutics subsidiary. Prior to closing, I would like to recognize and thank our team for their unwavering commitment and remarkable efforts so far this year. And as you can tell, we are very enthusiastic about the future. And we look forward to communicating with all of you and even meeting some of you next month at JPMorgan. And we appreciate your attention. And again, we look forward to speaking with all of you soon.

Operator

Thank you all for joining today's call. You may now disconnect.

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