



"Sun Pharma Advanced Research Company Ltd. (SPARC)  
Update on Clinical Programs and R&D Pipeline Conference Call"

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**Moderator:** Ladies and gentlemen, good day and welcome to SPARC'S Update on Clinical Programs and R&D Pipeline Conference Call.

As a reminder, all participant lines will be in the listen-only mode, and there will be an opportunity for you to ask questions after the presentation concludes. Should you need assistance during the conference call, please signal an operator by pressing star, then zero on your touchtone phone. Please note that this conference is being recorded.

I now hand the conference over to Mr. Jaydeep Issrani from SPARC. Thank you and over to you.

**Jaydeep Issrani:** Thank you, Yashashree. Good evening, ladies and gentlemen. My name is Jaydeep Issrani, I head the Business Development and Investor Relations at SPARC.

On behalf of SPARC, I welcome you to SPARC's yearly Update on Strategy and Program Updates. I am joined by our CEO, Mr. Anil Raghavan, and members of SPARC's senior management team for the call today.

The format for today's discussion will be similar to our previous presentations. That is, SPARC presenters will walk you through the slides, after which the call will be open for questions and discussions.

The presentation for today's discussion was shared earlier.

We hope you have received it.

Before we start today's discussion, I would like to remind you that our discussion today includes forward-looking statements that are subject to risks and uncertainties associated with our business. Hence, actual results may be different from those projected in today's presentation.

I will now hand it over to Mr. Anil Raghavan for his presentation. Over to you, Anil.

**Anil Raghavan:** Thank you Jaydeep for the introduction.

Good evening everyone. It gives me great pleasure to welcome you to SPARC's 14th annual portfolio update. Thanks so much for your continued engagement and trust. We couldn't have reached where we have without your steadfast support every step of the way. Thanks again, and thank you for taking the time to be with us today.

As Jaydeep said, we will follow our regular discussion flow, starting with a commentary on our strategy and operational priorities followed by a report on the progress on key programs. My intent is to capture the most important elements of our post PROSEEK plan and set expectations for the short to medium-term. I will also touch upon several programs which we do not plan to cover in the program updates. On that part of the presentation, we will focus on reviewing the progress made on two specific programs which are super important for SPARC going forward.

I am delighted to introduce Dr. Mudgal Kotheekar and Dr. Sandeep Inamdar who recently moved to therapeutic leadership roles for Immunology and Oncology, respectively. Mudgal and Sandeep have been with SPARC for many years and will play important leadership roles in shaping our portfolio in their respective therapeutic domains.

Mudgal will discuss our SCD-153 program for Alopecia Areata and potentially other dermatology autoimmune conditions. Sandeep will go over the MUC-1 ADC program, SBO-154 with us.

So, with that, let's start where we have left off in our last call. Slide 4 please.

This is an overview of the PROSEEK full results. As we mentioned during interim analysis call, we have closed the study at 491 patients immediately after interim analysis results were out. We have also discontinued the long-term extension study with roughly 100 patients completing that leg of the program. We have now completed the full analysis, including the planned biomarkers and several post hoc questions. Unfortunately, the results from the full analysis closely matches the interim analysis trends that we shared with you.

The MDS-UPDRS part III trends are shown here in the graphs below. Mean of the change from baseline was the primary endpoint, which also showed a similar trajectory without adjusting for drop-outs. But in model-based analysis, adjusted for drop outs, drug arms marginally deteriorated and underperformed the placebo. Placebo performance in this study has been a clear outlier, with a modest improvement in MDS UPDRS part-3 vs both, natural history and trends from other trials in early-stage Parkinson's disease. And on biomarkers, while most markers mirrored the clinical trend, a key mechanistic biomarker, alpha-Syn in CSF bucked that trend and demonstrated a reduction in the high dose arm, a result that actually supported the c-Abl hypothesis. Pharmacokinetics, PK from both plasma and CSF, were consistent with prior studies and expectations. In fact, in the CSF, even at the low dose, we had multi-fold coverage for the c-Abl IC<sub>50</sub>. We have also analysed the LTE trends which was not a controlled study. All placebo patients transitioned to high-dose post week 40 in line with the LTE study design. Patients who remained on the drug continued to deteriorate slightly when we adjust for drop-outs using a statistical model. We used MMRM, a widely used statistical technique for making such corrections.

While it is difficult to draw firm conclusions without a placebo arm, it appears that these patients deteriorated slower than expectations based on natural history studies even in the long-term extension arm. We plan to review the full results with our scientific advisory board later this month and looking forward to publishing the study formally as soon as possible. That's all I wanted to say at this point. We can revisit PROSEEK during our Q&A if you have additional questions which I am sure some of you may have. Slide 5 please.

Understandably, PROSEEK was a significant turn for us. Now as we pivot from that chapter, we have to address the important, top of the mind question that ourselves and our investors have..... regarding the value of the residual portfolio, and how do we resource them? We spent a lot of time after PROSEEK data readout, analysing our other active programs and potential options and settled on three important priorities for SPARC going forward –

First pillar is having an optimized portfolio with a narrower therapeutic area focus with SCD-153 and SBO-154 as the anchor assets, that's Itaconate and MUC-1 ADC.

Secondly, we have to adopt a more flexible business model for resourcing and encashing our assets and capabilities, this means for example, a willingness to partner key assets much earlier than we have been traditionally exploring or we were comfortable exploring, and ~~third~~, finally a sharper focus on execution of short-term, cash generating opportunities. We have several milestones with varying degrees of likely impact, varying probabilities of success and time to event horizons. Now let me talk to all three of these pillars in a bit more detail in the rest of my presentation.

Let's start with slide 7 on portfolio optimization.

Let's first look at what is not here. Neurodegenerative diseases. While our challenges with Vodobatinib were truly multi-factorial, couple of key ones stood out on reflection. Reliability of animal models and viability of appropriate clinical trial designs in terms of duration of the study, number of patients, availability of reliable biomarkers, etc. These were two of the most important. We had several programs in the neuro-degenerative diseases area, going into the PROSEEK data event, pursuing similar or complimentary hypotheses. Since the outcome of PROSEEK which was a real downer for these programs, we have parked all but a couple of early platforms building efforts in the neurodegeneration space, pending our review with our SAB and determination of ways to mitigate the key risks.

In the interim, Oncology and Immunology will remain mainstay of our portfolio and they are somewhat natural choices for us from both an opportunity attractiveness standpoint and capability maturity perspective. Oncology represents significant unaddressed disease burden and pricing support, in spite of intense competition. We will focus on two key themes which enjoyed a lot of success off late. Smart delivery of cancer drugs, mediated either through an antibody or small molecule ligands. We will look to deliver a variety of pay loads including chemo therapeutics, immune activators, and other targeted therapies. Another theme we are excited about

is new synthetic lethality targets which can work in either PARP resistance or in new synthetic lethality pairs. We have a couple of interesting ideas that we are currently pursuing. One key element of this approach, especially the smart therapeutics part, is its modular nature. Many of its components, be it targeting moieties, linkers or payloads can work in multiple combinations and permutations, which gives us significant efficiencies in terms of discovery and early preclinical development.

Immunology is a bit more nuanced picture; the autoimmune field has seen significant level of success moving the standard of care substantially in recent past. Mostly on the back of resounding success of antibodies blocking key cytokines such as IL-23, 17 in Psoriasis and 4 and 13 in Atopic Dermatitis. But the field really has a sub-optimally addressed need for a safe oral or topical alternative for biologics depending on disease severity. JAK inhibitors which provide an effective alternative have their own liabilities on safety. That's where SPARC is trying to position in Immunology. Novel mechanisms which can lead to safe topical alternatives to Biologics and JAKs. We believe it will also meet another key unaddressed need in this space, that's for combinations which can improve efficacy and therapeutic windows. We will have more to say on this later on. Now let's move to slide 8 please.

Bit more on 154 and 153 programs. We have introduced these programs in our earlier calls. Let me give you a quick recap of these programs as a refresher. SBO-154 is an Antibody Drug Conjugate which targets a novel combinatorial epitope of a tumor associated antigen called Mucine-1. As you know, we have in-licensed these unique antibodies from a university of Tel-aviv start-up called, Biomodifying. 154 is the first product on that platform and it leverages a robustly validated linker and payload, that is MMAE using a PABC linker. We have already achieved preclinical validation for several key aspects of the hypothesis which we will go over in the next set of slides.

SCD-153 is a pro-drug of an analogue of an endogenous immunosuppressive metabolite called Itaconate, which was originally developed by a team at Johns Hopkins. We have built the 153 program on multiple topical formulations of this itaconate analogue which we believe, can be effective interventions in Auto-immune disorders like Alopecia Areata and Vitiligo. The

program has completed its 'first in human' single ascending dose study recently and a multiple ascending dose study in Alopecia Areata patients is expected to start in early part of 2025. Mudgal will walk us through the program in a bit more detail. As I mentioned earlier, we are really excited about the platform nature of both these assets. Upon clinical validation, both assets can deliver multiple indications and products in the monotherapy setting as well as in combinations. I want to talk a bit more about the promise of these two opportunities in the next couple of slides before I move on from the portfolio optimization priority, starting slide 9.

The ADC field has been on fire recently on the back of the success of products like Enhertu and Trodelvy. And in fact, a lot more is in the works, making ADCs one of the hottest, busiest areas for innovation in Oncology, and hopefully even beyond, particularly in Immunology in the future. What is making this surge possible? Evolving maturity of linker payload technologies is a big factor in addition to opening up of several key technology elements such as linker systems, giving broad freedom to operate. The field is also learning from growing clinical experience about optimal DARs, i.e., drug antibody ratios, effective ways of management of typical adverse events, viable dosing regimens and so on and so forth. SBO-154 looks to leverage some of these key learning from the field's recent success with a potentially novel targeting moiety, the SEA domain of Mucine 1. Why is that important? Let's get to the slide 10.

A lot of intense activity that we are currently witnessing in the ADC space is driven by classic herd mentality. Take a look at the antigens targeted. A lion's share of these programs targets less than 10 cancer specific antigens. Even within that distribution, two antigens HER-2 and TROP-2 account for a vast majority of current active programs. In our view, HER-2 and TROP-2 boats have already sailed for classic ADCs with chemotherapeutic payloads, which is what almost all of these programs are trying to do. So, there is a real dearth of potentially high impact targeting agents and that's what we believe what gives MUC-1 SEA a distinctive edge. MUC-1 alpha has been and continues to be a target of active interest for ADCs and even other approaches like cancer vaccines. All these programs need to swim against substantial blood levels of

cleaved alpha region which makes tumor targeting difficult. 154 overcomes that issue by focusing on the SEA combinatorial epitope which improves its tumor specificity significantly. We now have validation for two key elements of this idea – the relatively low levels of floating SEA compared to floating alpha in patient plasma and the appreciable surface expression of the epitope of our interest on highly prevalent tumor types. Sandeep later in the presentation will discuss the data from these validation studies in greater detail. As I said earlier, if we successfully reproduce these outcomes in the clinical setting, that gives us a new viable targeting moiety which can be used extensively with other types of modalities such as other cytotoxins, immune activators and T-cell engagers etc. That’s certainly exciting.

And now a brief update on SCD-153, slide 11 please.

This slide builds on a couple of points I mentioned earlier on. In spite of its enormous commercial success, the clinical impact of biologics is limited to more advanced patients fighting severe manifestations of certain diseases, such as Atopic Dermatitis, Psoriasis, IBD, Rheumatoid Arthritis, etc. The number of lives impacted is far fewer than patients who are managed with small molecule orals or topicals. The real issue here is the stagnation in non-biologics standards of care both in terms of safety and efficacy. So, moving the therapeutic needle would require new approaches which expands choice for physicians and patients fighting these difficult diseases either as standalone agents or potential combination partners. That’s the real promise of SCD-153. We have learned so much about the pathway and the new chemical entity in our productive collaboration with JHU and are really looking forward to subsequent phases of clinical development. Mudgal will review some of the science and early clinical outcomes with us later in the call.

So, let me leave this segment with two or three key messages.

SPARC will pursue select themes in Oncology and Immunology for its portfolio build going forward. That’s leveraging tumor specific delivery options and synthetic lethality in Oncology and novel pathways which can become topical options in certain dermatology auto immune conditions.



SCD-153 and SBO-154 offer potentially high value options and ideal vehicles to test this approach with great upside if we are successful.

And we will direct our resources preferentially to developing these programs to its clinical inflection points and these will remain the primary focus of post PROSEK SPARC. Now, let me quickly go over the next two tenets of our strategy going forward. Starting with a key shift in our partnering approach and I will use the SCO-155 program to illustrate the change we are trying to highlight. Slide number 13 please.

Certainly, one of the challenges we have, coming out of a costly clinical data setback, is the resource constraint that we have to navigate. Committing to continue developing the prioritized assets would consume a significant share of resources that we have access to. That leaves several important programs in our portfolio with very difficult choices.

Historically our intent has been to stay on to our programs at least till we obtain clinical proof of concept and enter late-stage clinical development. We need to re-examine that construct and that is what we are intending to do. We will look for partnerships at an earlier stage of development. In addition, we will also look for alternative structures, like asset specific NewCo creation. We have a specific example for this shift in approach, coming out of our work with UCSF. I want to go over the program and the construct in a bit more detail in the coming slide. But before I do that, let me also make a brief comment on another business model opportunity which we have shied away from in the past, that's leveraging our discovery and translational capabilities in a services model to de-risk SPARC. Even though there are really strong tail winds in terms of market forces supporting India based services businesses, and a real need to de-risk SPARC for downside protection, we continued to stay on the side-lines for several reasons and we have spoken about them in the past. While that remain the case, we will continue to review our options and risks carefully and take a final position on this opportunity in the coming year.

Now to get back on our collaboration with UCSF, let's look at slide 14.

This slide captures the broad timelines of our relationship with UCSF. UCSF was one of our earlier strategic collaborations with a master collaboration agreement taking shape in 2017. The program that led to SCO-155, was conceived in 2020 and we could identify a lead candidate with preclinical validation in two years flat. We are proud of the quality of collaboration with the UCSF team and the accelerated nature of our early development.

We have explored setting up a NewCo for advancing this asset and that thought led to the formation of Tiller Therapeutics. A company founded by a team of UCSF investigators, SPARC and UCSF itself. Earlier this week we announced the successful closure of the letter of intent between SPARC and UCSF to go ahead with this construct. SPARC and UCSF will license rights to its joint IP to Tiller Therapeutics and Tiller will raise external dollars to fast-track SCO-155 to clinic. We believe this is an exciting business model option which we can explore with many other programs in our early-stage pipeline which in the broader scheme of things allows more shots on the goal and certain level of risk mitigation at the portfolio level. Next slide, slide 15 has more color on the program per say.

PSMA has been targeted for tumor specific delivery of chemotherapeutics for a long time. The field had its first major breakthrough with the radio ligand therapy pluvicto which uses a small molecule ligand of PSMA to deliver radiotherapy. In spite of impressive data early on, the RLT field faces many challenges, leaving alternatives to come in and improve the outcomes. There is significant opportunity to reduce variability in therapeutic benefits plus improve overall safety profile, particularly reducing the bone marrow toxicity. Alternatives can also help overcome limitations in terms of life term hard caps in addition to all the logistical challenges in putting together and distributing a radio therapy. SCO-155 provides a differentiated approach using a synthetic PSMA ligand for targeting, but delivering alternative payloads. We believe this approach helps to overcome some of the limitations of the radio ligand therapy as well as PSMA targeted ADCs which are tested so far. In an indication where unfortunately, there is progression with tragic quality of life and survival implications, SCO-155 can offer a very useful treatment option.

Please move to slide 16 which discusses some illustrative data from this program.

The graph on the left highlights efficacy in an *in vitro* system. The chart plots PC3 prostate cancer cells for both PSMA overexpressing PC3-PIP cells and PSMA null PC3-FLU cells. SCO-155 efficiently inhibits the PIP cells at less than a picomolar IC<sub>50</sub> and has a 1000-fold advantage over the null FLU cells.

And on the chart over on the right side, we have an *in vivo* proof of concept from a PC3 xenograft model. Our small molecule drug conjugate at 60 microgram/kg dose is tested in both PIP and FLU Xenografts against the vehicle. While SCO-155 in the FLU xenograft and vehicles in both xenografts did not make any impact. Look at the drug curve on the overexpressing PIP model, it leads to a complete regression of the tumor.

These and other critical pieces of data validating this asset have paved its way to a set of IND enabling studies setting up its clinical entry in the short to medium-term. Slide 17 please.

As mentioned earlier, Tiller Therapeutics was formed between SPARC, UCSF and its scientific founders. SPARC will receive 55% of Tiller's initial shares in two tranches. This equity will be issued in full within six months of signing the definitive agreement.

Tiller plans to build its pipeline focusing on the Small Molecule Drug Conjugate modality with additional targeting ligands and payloads in a wide variety of solid tumor milieu. We are super excited about many things here. Firstly, SCO-155 as an asset and its potential to emerge as a true alternative to other PSMA targeted approaches. That is foremost. We are working with a very high profile and high impact team as scientific founders of Tiller. We believe in their ability to follow through and develop a pipeline using this approach. And finally, this experiment offers a viable alternative model to advancing interesting programs, particularly on the face of resource constraints. That's very promising as we continue to build differentiated preclinical programs, all fighting to find a way to clinic sooner than later.

That takes me to the final set of slides on my part of the presentation which aims to cover certain short-term cash catalysts which we are tracking closely. Let's move to slide 19 please.

In the next few slides I want to focus on two things. On the left bucket here, we have a bunch of short-term milestones with potential cash events. They come with a mix of probabilities which will be difficult to estimate accurately at this moment, but they all offer a definitive path to adding additional resources to support prioritized programs and beyond. And therefore, very important.

Equally important is optimizing our cost structure to the demands of our current portfolio and intent. Not just structural adjustments though, but finding ways to do more with less constantly. We have done quite a bit of this since PROSEK IA and may have potential additional adjustments to make in the coming year depending on where the chips may fall in the first bucket.

Let's take a look, slide 20 please.

We have four programs which can potentially lead to cash generating milestones in the short-term. Let's go one by one starting with Sezaby, which is our benzyl alcohol free Phenobarbital formulation which got approved in November, 2022. There are two potential opportunities which we are aggressively pursuing, that's finding a way to convince the agency to reconsider the denial of a pediatric rare disease voucher which we believe we were eligible for. And secondly, convincing the agency to enforce the orphan drug exclusivity that Sezaby was granted. I will cover both these opportunities in bit more detail in the next slide.

Vodobatinib's CML opportunity is the next one in this set. It was always meant as a hedge for the PD program and I will update you on where we stand on our efforts to find a development and commercialization partner.

PDP-716 is another asset with potential access to cash. As you may remember, we received a complete response letter which primarily cited the unacceptable regulatory status of our API partner. Since then we have replaced the API source and made certain changes to the process. Primarily

moving to a higher volume capacity for the finished product manufacturing. On the partner end, Visiox went through a couple of ownership transitions involving a SPAC deal which did not conclude and a merger with another pharmaceutical company. We are working very closely with the current management of Ocuvox, that's their new name, to complete the CRL response by 2nd quarter of the next financial year and ensuring a successful launch once we get the approval which we hope to get before the turn of FY26. PDP-716 launch has a significant milestone attached to it.

We have also made substantial progress with Vibozilimod, which has a couple of phase two studies targeting AD and Pso.

Let's start with Sezaby. Over to slide 21.

Let me start with a caveat on the potential pediatric rare diseases voucher. This matter is the subject of an active litigation and there are significant restrictions in terms of how much we can discuss. So, I will limit my comments to providing necessary background and the potential impact of a positive outcome.

PRD voucher program was established with an intent to incentivise development of better and safer medications for pediatric rare diseases. The PRDV statute lays down very specific qualifications for a product to meet in order to be eligible for a pediatric rare diseases voucher. During the approval of Sezaby in 2022, FDA denied us the voucher and shared with us the agency justification supporting the denial which was built on a certain interpretation of the PRDV statute. SPARC believes the agency interpretation led to an unfair denial of the voucher and we are committed to exploring all available options to correct this. We have been on this path since the approval including directly presenting our case for reconsideration to the agency. After exhausting all available reasonable options, we have approached the court for direction in February 2024 and we expect the courts initial opinion on this matter in the last quarter of this financial year. We hope for a positive turn of events and if we get a favorable outcome, as you can see from the rest of this slide, PRV is a highly valued tradable devise which has recently been sold for values in

excess of 150 mn USD. Unfortunately, we cannot go into any more detail on this here, given the active status of this matter. We will keep you posted.

Now on the exclusivity piece, please go to the next slide please. Slide 22.

When the agency approved Sezaby, they granted SPARC a 7-year orphan drug exclusivity, which if enforced will force marketers of unapproved formulations of Phenobarbital IV out of the market. FDA follows a long-standing policy of risk-based enforcement of exclusivity. We have been working with the agency through this period to remove unapproved products from the market.

We have been in touch with the agency through direct representations and using formal devices like citizen petition. Given the complexity of the case, FDA has indicated they need more time to formally respond to our citizen petition. In the meantime, we have been communicating with the marketers of unapproved formulations, making them aware that they cannot continue to be in the market as Sezaby is formally approved in the US market. This was done through formal cease and desist letters.

We have also been working to make our supply chain more robust by adding additional external capacity which is under agency review as we speak. We remain hopeful that the exclusivity will be enforced as it is not just a matter of getting unapproved products out. In addition to being the only approved IV Phenobarbital in the US, ours is the only product which doesn't have the potentially harmful excipients such benzyl alcohol. FDA has a stated intent to remove products containing benzyl alcohol, especially when it can pose significant potential risks to vulnerable populations such as neonates. So, going in to 2025, all hands on the deck and staying hopeful.

Now let's turn to slide 23 for an update on Vodobatinib.

Post PROSEK IA results, we engaged with USFDA for CML to have clarity on registration expectations and agree on key elements of a phase 3 design. The schematic here on the top half of the slide captures the expected phase 3 program. There are a couple of major elements to highlight here in terms of FDA expectations. First the population – patients who have failed at least one

2nd generation TKI. We need to include a smaller dose-finding leg with at least two more doses other than proposed 174mg dose. So, in this design we have 20 patients at 200 and 130mg each. We have kept this an integrated protocol which can move to the phase 3 part of the program post analysis of the randomized dose-finding part. We have to get an agreement on the Phase 3 dose with the agency at this stage before we initiate a formal comparative study against 500mg bosutinib.

Our intent is to keep the program at a state of readiness to launch a registrational program, while we finalize a potential development and commercialization partner. We have initiated that process in the second half of this year and have completed our initial outreach. As you can expect, given the niche orphan indication, we are working with a limited field here. We are working towards identifying a partner by the end of this financial year.

Final program in this list is Vibozilimod, or SCD-44 which is licensed to Sun Pharma. Slide 24 please.

As you know, we have two active phase two trials for Vibozilimod ongoing in Atopic Dermatitis and Psoriasis. The most important update here is, we have achieved enrolment competition for both these programs. Atopic dermatitis 16 week topline is expected in Q4 of FY25, while Psoriasis is expected to reach topline readout in Q1, FY26.

At this point, we keenly await data and looking forward to working with our commercial partner to advance the program to phase 3. Slide 25 please.

Coming into this year on the back of the PROSEK outcome, one of key objectives was to find ways to preserve capital without sacrificing the most important portfolio priorities. So, as you can see, we have prioritized MUC-1 ADC and Itaconate AA program as our top execution priorities. Plus wanted to continue to shape these two programs and its extensions preclinically without losing momentum, in addition to exploring some of our more promising discovery programs. What are the implications of this?

We minimized all additional spend on the ongoing CML program and decided to focus on transitioning the asset to a potential partner with a fully conceived

program. We found an alternative model for developing the SCO-155 which as you can see, we are really excited about. And even on our high priority programs, we have significantly increased the India clinical component to keep the overall costs to clinical PoC's under check.

On the organizational side, coming into this year, we were gearing up for a significant Vodobatinib PD phase 3 program. Or even multiple programs. Given the early-stage nature of assets we are assigning higher priority now, there was a significant mismatch between the scale of our clinical development team and our current scope. Or even the scope we are expecting in the short-term. As you can see here on these charts, we are currently at 324 against a planned FY 2025 headcount of 400+. This reduction is driven by significant down-sizing in the clinical development capability, here in India and also substantially in the US. Our US headcount dropped from 37 at the beginning of this year to 7 currently.

Our resourcing is certainly an evolving situation. We started the year with 15.2 mn opening cash. But with PROSEK turning out the way it turned out, we had to rely on our smaller operating cash flow and approved debt limits which are primarily coming from our promoter group companies or from commercial banks with promoter group guarantees. This may take us to mid of Q1 next year. As I mentioned, we have several potentially cash generating catalysts in the short-term. We will review where are at the end of this year before finalizing a medium-term resourcing plan for the company. We will keep you posted. Slide 26 please.

Here is a snapshot of our short to medium-term execution priorities. I have touched on objectives for Sezaby, Vodobatinib, PDP-716 and Vibozilimod in detail in the previous slides which I don't plan to repeat here. We have additional objectives set for SCD-153 and SBO-154 in this slide. But in the subsequent sections, Mudgal and Sandeep will give you additional color on the status and plans for these programs. So, let me not steal their thunder.

So, in closing, let me say this. We have tried to turn the page and focus on two very promising assets to have additional shots for SPARC. We have several other interesting ideas preclinically which have important data milestones



coming up in short order. What we did with SCO-155 may give us a good template to progress these programs without committing additional resources from our end. In the short-term, we will stay super focused on achieving potentially cash generating milestones. Once we are through with that, we will take a hard look at the end of the year to see where we are and our options going forward and go from there. So, thanks for your time today. I will transition the call to Dr. Mudgal Kothekar at this point for an update on SCD-153 and looking forward to seeing you for the Q&A later. Thank you.

**Mudgal Kothekar:**

Thank you, Anil. Good afternoon. So, I will provide an update on the SCD-153 program for the treatment of Alopecia Areata. As shown here on Slide 28, Alopecia Areata is an autoimmune disorder that results in patchy hair loss as shown here. It affects 2% of the global population and the prevalence is increasing. Some patients, especially with a mild disease recover spontaneously but most need medical intervention for hair growth. Corticosteroids are used off-label with limited efficacy and risk of side effects on long-term use. Recently approved JAK inhibitory carry black box warning for some serious side effects such as cardiovascular events, infections and malignancies. This hair loss in Alopecia Areata is because of infiltration of immune cells such as the CD8+ T cells around the base of hair follicles that attack and damage these cells.

Next slide, please. So, SPARC has developed a topical agent called SCD-153 for the treatment of Alopecia Areata. This is a first in class compound that targets the basic pathogenesis of the disease. SCD-153 was evaluated in an animal model of Alopecia Areata in mice. The pictures on the left side, show the animals in this model; SCD-153 at various doses and dosing regimens resulted in growth of hair in this model while the animals treated with vehicle showed no hair growth. The figure on the right side shows hair growth in terms of hair growth index. You can see that SCD-153 at most dosing regimes resulted in hair growth over time while there was no hair growth in the vehicle arm. The dose 3, regimen 1 showed the most remarkable hair growth. Next slide.

Now in the same study, we evaluated the effect of SCD-153 on the CD8+ T cell infiltration around the hair follicles. The figure on the left side shows a reduction in the CD8+ T cells at the base of the hair follicle compared to the

vehicle arm. As shown on the right side, there was a significant and dose dependent reduction in the CD8+ and NKG2D+CD8+ T cells in the skin that was treated with SCD-153. It may be noted that the NKG2D+CD8+ T cells are a type of CD8+ T cells that are specifically implicated in the pathogenesis of Alopecia Areata. On Slide 31 is an update on the Phase 1 program.

We have recently completed a Phase I study of SCD-153 in healthy volunteers. In this study, single increasing doses of SCD-153 were evaluated in five sequential cohorts of healthy volunteers with 8 subjects in each cohort. SCD-153 was well tolerated up to the highest dose strength evaluated. The maximum safe dose was not reached as the highest dose was also found safe. No subject experienced dose limiting toxicities. Next Slide. This slide shows the drug related adverse events that were reported from the study.

One subject at the dose level 4 experienced mild erythema and burning sensation. Two subjects at the dose level 5 experienced mild erythema and one subject experienced burning sensation. These events were mild in severity and resolved without treatment.

On the next slide, slide 33, is an update on the planned study. In this study, skin biopsies were taken 24 hours after the drug application to estimate the concentrations of SCD-153 in epidermis and dermis. As shown here, detectable concentrations of SCD-153 were observed dose level 2 onwards with an increase in the concentration with increase in the dose. Next slide.

We have planned a phase IB study in patients with Alopecia areata in India. The protocol has been submitted to the DCGI. This is a randomized double-blind study to evaluate the safety, efficacy and pharmacokinetics of SCD-153 compared to vehicle in the AA patients.

The flowchart describes overall design of the study.

After screening assessments, eligible subjects will be randomly assigned in a 4:1 ratio to SCD-153 or vehicle arm in sequential cohorts of four dose strengths of SCD-153.

Initially, patients will be enrolled in the first cohort of dose level 1.

Subjects will receive a single application of the assigned treatment, SCD-153 or vehicle on day 1 followed by safety and tolerability assessments up to day 8.

Subjects who have tolerated the single application of the drug will receive once daily application of the assigned treatment, SCD-153 or vehicle for 2 weeks followed by safety assessments on day 22.

Subjects will continue to receive the assigned treatment for next 10 weeks i.e. up to week 13.

Subjects initially randomized to SCD-153 will continue to receive SCD-153 for another 12 weeks. Subjects initially randomized to the vehicle will be switched to SCD-153 at the same dose or strength as the active arm of the cohort for the next 12 weeks. Patients will be enrolled in the subsequent dose level after the evaluation of safety data up to day 22 by a Committee. Next slide please.

To summarize, SCD-153 employs a new mechanism of action to address the complex immune pathogenesis that could be implicated in a diverse range of clinical manifestations. In addition to providing an alternative option for treatment as a single agent, SCD-153 also has a potential to be used in combination with the established treatments to improve their efficacy in terms of durability of response or increase in the response rates. SCD-153 has a potential to be explored in multiple dermato-immunological disorders and multiple topical formulations of SCD-153 could be developed. Thus, SCD-153 is a topical first-in-class alternative that has a potential to address the limitations of existing therapeutic options.

On the next slide, that is Slide 35, are the projected milestones for this program. The Phase IB study in Alopecia Areata patients will be initiated in the Q1 of FY26. We will get interim readout from this study in Q1 of FY27 and we target to initiate a global Phase IIB study in Q4 of FY27.

So here I conclude the update on SCD-153 and I hand over to Dr. Sandeep Inamdar for an update on SBO-154.

**Sandeep Inamdar:**

Thanks Mudgal. So, we will now shift our focus to SBO-154, an anti-MUC-1 antibody drug conjugate with a monomethyl auristatin or MMAE payload being developed for the treatment of multiple advanced solid tumors. So, MUC-1 is a highly glycosylated transmembrane protein consisting of an extracellular alpha subunit, a membrane proximal beta subunit and a short cytoplasmic tail. It is widely expressed in normal globular epithelial cells such as the lining of the gastrointestinal and respiratory tracts. It is normally expressed exclusively on the apical or glandular surface of the epithelial cells.

However, during malignant transformation there is an increase in the cell surface expression of MUC1 along with a change in the normal pattern of the expression resulting in MUC1 expression across the entire cell surface in cancer cells as opposed to the apical expression seen in normal cells. This change in expression pattern may allow anti-MUC1 ADCs to selectively target the tumor because the apical surface in normal tissues is not usually accessible to administered drugs. Next slide.

SBO-154 is a first-in-class humanized IgG1 antibody targeting what is known as the SEA domain of MUC1. The SEA domain is located in close proximity to the cell surface, at the junction of the extra-cellular alpha sub-unit and the partially embedded beta sub-unit. Historically, it has been easier to develop antibodies against the alpha subunit, particularly the VNTR region and therefore most of the previous clinical efforts have been directed against this region of the protein. However, the VNTR region is subject to significant proteolytic cleavage resulting in a large amount of circulating MUC1 in the peripheral circulation that may have originated from the tumor cells. In fact, the well-known cancer antigens CA15-3 and CA 27-9 that are over-expressed in breast and some ovarian cancers are circulating MUC1 entities cleaved off from the tumor cells.

Large amounts of circulating alpha sub-unit MUC1 in the periphery may sequester or bind to exogenously administered therapeutic ADCs resulting in a sink effect thereby limiting the access of the antibody to the actual site of tumor. Since the SEA domain is not subject to the same level of proteolytic cleavage as the VNTR region it is unlikely to be subject to this sink effect in the plasma. Next slide.

SPARC has evaluated the cell surface levels of SEA domain MUC-1 in various patient-derived tumor tissues using a proprietary immunohistochemistry assay. We have seen high levels of SEA domain-specific MUC1 expression across a variety of common tumors such as adenocarcinoma of the lung, ER+ positive breast cancer and ovarian cancer. The median H-score which a measure of cell surface expression of the protein exceeded 200 out of a maximum possible score of 300 in most of these tumors that were predominantly Stage IV. For context an H-score greater than 100 would be considered moderate and scores exceeding 150 are generally considered high. It also appears that the level of MUC1 expression increases with increasing stage of the disease.

Amongst these, breast and lung cancer samples had broad circumferential expression. The expression pattern in ovarian and pancreatic cancers was predominantly apical, however given that tumors generally lose the typical glandular architecture that is present in normal tissue, the extent to which this apical expression will restrict access to SBO-154 is unclear. Given the very high expression levels in ovarian cancer we plan to enroll a cohort of these patients in our phase 1 study which I shall discuss in the next couple of slides. Next slide.

In order to further test the sink-effect hypothesis, we have also evaluated the levels of circulating SEA domain MUC1 and compared that to the VNTR domain in plasma samples of patients with advanced cancers. Across all tumor types tested we find that the levels of circulating SEA domain are significantly lower than the VNTR domain from the alpha subunit indicating that SBO-154 may not suffer from the same sink effect that impacted the earlier generations of MUC1 targeted therapies. Next slide.

We have evaluated the activity of SBO-154 in in vitro cell lines and in vivo animal models with different levels of MUC1 SEA expression. The in vitro cytotoxicity data are depicted in the table at the top of this slide where it's evident that SBO-154 shows higher potency as seen by lower IC50 values in the higher expressing COLO357 and MCF7 cell lines compared to the lower expressing HT29 cell line. Similarly, when the COLO357 cells were xenografted in nude mice the tumor volume reduction was significantly greater upon

treatment with SBO-154 compared to vehicle control. In contrast SBO154 resulted in relatively modest reduction in tumor volume in the HT29 xenograft study indicating that the preclinical efficacy of SBO-154 correlates well with target antigen expression. Slide 43 please.

Preliminary non-GLP toxicology studies have been completed in cynomolgus monkeys, which is the pharmacologically relevant species for this antibody. In an exploratory 7-week dose range finding study in 2 animals, SBO-154 was administered at doses of 1, 3 and 6 mg/Kg for 3 doses at every 3-week dosing schedule. SBO-154 was generally well tolerated up to the highest dose of 6 mg/Kg. There was no mortality or adverse clinical signs with no effect on body weight and food consumption. There were laboratory abnormalities of bone marrow suppression such as reduction in blood cell counts which is consistent with the known adverse event profile of MMAE. Histopathology was also consistent with the observed lab value changes. There was a dose proportional increase in exposure of SBO-154 and the highest non-severely toxic dose or the HNSTD was established as 6 mg/Kg. A repeat dose GLP tox study is currently ongoing as part of the pre-IND requirement. This will help confirm the preliminary tox results and estimate the starting dose in our phase 1 study. Next slide, please.

Now I would like to provide a program update in terms of next steps for this molecule. We had submitted a pre-IND meeting request to the US FDA for which we received a detailed written response in late November. Their response indicates broad agreement with SPARC's proposed IND data package and we do not anticipate any barriers to the IND filing early next year. We proposed a multi-country phase 1 dose escalation and expansion study in patients with advanced epithelial solid tumors and standard eligibility criteria for a study like this. The dose escalation portion is expected to enrol approximately 30 unselected solid tumor patients who have failed available therapy. Once a maximum tolerated dose has been established we plan to open 3 tumor specific expansion cohorts of approximately 30 patients each in tumors that are known to highly express MUC1 SEA. This includes ER+ breast cancer, adenocarcinoma of lung and ovarian cancer. This will be an adaptive

design with the goal of establishing early clinical proof of concept for the program. Next slide.

Finally, a quick update on the upcoming milestones for this program. We anticipate an IND filing by the end of Q4 FY2025, followed by initiation of the Phase I study in the subsequent quarter. Next slide.

So, while that concludes my specific discussion of SBO-154, I'd like to highlight that the MMAE payload-based approach is only one of the multiple ways we can leverage MUC1 targeting. This uniquely-targeted antibody has the potential to serve as a platform for other payloads, including other chemotherapeutic agents such as cytoskeletal disruptors or DNA-damaging agents, immuno-oncology based approaches using both immune agonists as well as checkpoint inhibitors and agents targeting angiogenesis. We have very early programs in development for some of these approaches. I will now hand it back over to Jaydeep to direct the rest of this session.

**Jaydeep Issrani:** Thank you, Sandeep. This is the last slide for discussion today and it summarizes SPARC's pipeline of disclosed assets and their stage of development. We have multiple other programs under development that are not disclosed and we will share details of those programs at appropriate times in future. With that, we would now open the call for question and answer session.

**Moderator:** Thank you very much. We will now begin the question-and-answer session. We have first question from the line of Vishal M from Systematix. Please go ahead.

**Vishal M:** Thanks for the opportunity. So, my question is assuming we have some milestones coming up wherein we can potentially generate cash. One is a licensing deal for your CML candidate. The other is a priority review voucher that you might get issued, but in a worst-case scenario, assuming there is a delay in monetization of these opportunities, what is the cash level we have currently and how long we can continue to fund our operations?

**Anil Raghavan:** Vishal, thank you for the question. I am sure it is top of the mind for a lot of investors and as I said we have a significant number of opportunities here,

not just the two that you noted, that is the priority voucher and potential licensing. We have other options like the PDP-716 launch, the exclusivity enforcement on Sezaby. So there are four or five potential areas where we can have access to short-term cash.

But if you come back to where we are in terms of operating cash flows and access to debt that we have, it will probably take us to the early part of next year. And then depending on where we reach with the short-term cash-generating opportunities, which we will have visibility by the end of this year. We will have to take a position in terms of how we plan to resource the continuing development of these programs, which we are committed to do. But we haven't had a final decision on how we will go forward from there, even though we have some options, which we will disclose once we reach that point in the first quarter of next year.

**Vishal:** So, you also expect phase 2 data on Vibozilimod in Psoriasis and Atopic Dermatitis. Assuming the data is positive, do you expect milestone income on a positive data base?

**Anil Raghavan:** It is. Yes, once it reaches the next level of development, it should move to a phase 3 program. It is a milestone event for us. It is listed as one of the short-term opportunities in our presentation.

**Vishal:** Right, so just any sense that you would have gathered on the efficacy of Vibozilimod in Psoriasis from your early data that you would have both in Psoriasis and Atopic Dermatitis versus the other oral options in the same therapy? While you are targeting these and safety is one of the topmost priority, but just getting a sense on the efficacy that you would expect from these drugs compared to the other oral options on the market?

**Anil Raghavan:** Vishal, we are in a blinded study at the moment. We have no visibility in terms of early signals of efficacy and the studies that we have done earlier were phase 1 trials. The only human trials that we had were multiple phase 1 trials.

And I don't know whether you've been part of the previous discussion, the translational case for Vibozilimod was built on two things. One, we have seen significant ALC reduction, that is lymphocyte reduction in circulation, and that



is the mechanistic marker and the dose that we are studying in phase 2 setting.

And if you look at literature, there are other products in this class which were tested in Atopic Dermatitis and Psoriasis. And there is a certain threshold of ALC reduction that was required for competitive activity. And we have reached that level of ALC reduction in the phase 1 setting. So that was the translational case for initiating these phase 2 programs. But we do not have any inkling of what is in store given the blinded nature of the study.

**Vishal:** Right, and just one final one on Sezaby. Any technical hurdles there in terms of getting exclusivity? So, just want to understand whether it is a process or there is also uncertainty around the process?

**Anil Raghavan:** It is a process in the sense, the process that FDA follows is a risk-based assessment of how and when to enforce the exclusivity. So, FDA usually gives time when a new product comes to establish a robust supply chain and be in the market before they start enforcing the exclusivity. So, it is a process and we are in the process of engaging with the agency.

And we are hopeful as we have indicated, by the third quarter of this coming financial year, we hope to have exclusivity.

**Vishal:** Right. Just one more on the in-licensed asset SCD-153. Do you, would you kind of and would you need to pay some milestone income there whenever you get positive data or these are completely your own assets now?

**Anil Raghavan:** No, we have, these are licensed very early. That was a multi-year option agreement that we had on an early-stage preclinical asset. We have milestones and royalties which are typical to those kinds of deals, which is usually in low single digit percentages. So we have a structure which has both milestones and royalties. But given the early stage nature, it is not like commercial licensing.

**Vishal:** Right. Got it. Thank you very much.

**Moderator:** We'll take our next question from the line of Bino Pathiparampil from Elara Capital. Please go ahead.

**Bino Pathiparampil:** Hi. Good evening. A couple of questions from my side. Do you have any estimate of the unapproved Phenobarbital market size in the pediatric market?

**Anil Raghavan:** We haven't specifically disclosed a market size. But if you look at the current usage in the unapproved market, it's in several scores of millions of dollars. But I don't want to give you a top-of-the-mind number. But it is publicly available.

**Jaydeep Issrani:** If I could just add, the number of units being sold in the U.S., it is in excess of two million injectable units, which we believe is primarily used for neonatal population.

**Bino Pathiparampil:** Two million units. Okay, got it. Second, on the Sezaby PRV, when you say in 4Q of FY25, there would be an opinion of the court. Is there a trial that has already taken place? And it will be a final verdict by the court? What exactly would we expect?

**Anil Raghavan:** So, the process is that we have to have written submissions from SPARC, FDA and HHS and back and forth on those written submissions. And now later this month or early January, they will decide whether an oral argument is required. And that would be the first indication. And then if that's required, we expect that to complete in the first quarter, I mean, the last quarter of this financial year.

**Bino Pathiparampil:** Expected to complete in the last quarter of...

**Anil Raghavan:** Financial year. Yep.

**Bino Pathiparampil:** Okay, which means it's coming in the next three months

**Anil Raghavan:** Right, that's our expectation and hope.

**Bino Pathiparampil:** Okay, understood. And last on these two ophthalmic products, PDP-716 and SDN-037. I think I'm a little bit less updated. I was going through an earlier presentation from early this year. These two assets were not there. So, could you give a bit of background on how these came in? What is the market potential, etc.?

**Anil Raghavan:** Yep. PDP-716 is a reformulation of brimonidine, which is a widely used second-line drug in glaucoma. And we give a significant dosing benefit for this product. We have disclosed clinical results in previous presentations. We met the regulatory standard from a clinical data expectation standpoint and when we filed this with an external API source.

And that external manufacturer of the API had regulatory issues. And that led to a complete response letter. And before we got there, we had licensed this product to a commercialization partner, a company called Visiox, a specialty ophthalmology company in the U.S. Visiox has gone through a transition. It's now sold to a different company and we are working with their management to respond to the complete response letter. We replaced the API source with a new source. And we also made changes to the manufacturing process because we expect higher volumes for this.

So, we are moving to a higher volume source facility for this. So, our expectation is that by second quarter of next financial year, we will be in a position to file from the new facility and then it has a six-month review time. So, we are working very closely with OcuVex.

And the second product in this group was a steroidal reformulation. And there also, we have very good clinical results. But with the commercialization partner, what we agreed was we will schedule these submissions sequentially.

We will first complete PDP-716 and then we will go with the steroidal product. So, we will wait for the closure of PDP-716 to take a position on the regulatory process for that product.

**Bino Pathiparampil:** Understood. Thank you very much.

**Moderator:** As there are no further questions, I would now like to hand the conference over to Mr. Jaydeep Issrani for closing comments. Over to you.

**Jaydeep Issrani:** Thank you everyone for being on call today. In case you have any additional questions, feel free to reach out to us on the number that we have provided

on the website and we will be happy to answer your questions. Thank you once again for being on call today.

**Moderator:** Thank you.

**Anil Raghavan:** Thank you.

**Moderator:** On behalf of Sun Pharma Advanced Research Company, that concludes this conference. Thank you for joining us and you may now disconnect your lines.