UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA

MARCO MUNGUIA, Individually and on Behalf of All Others Similarly Situated,

Plaintiff,

v.

ATYR PHARMA INC. and SANJAY S. SHUKLA,

Defendants.

Case No. **'25CV2681 WQHSBC**

CLASS ACTION

COMPLAINT FOR VIOLATIONS OF THE FEDERAL SECURITIES LAWS

DEMAND FOR JURY TRIAL

Plaintiff Marco Munguia ("Plaintiff"), individually and on behalf of all other persons similarly situated, by their undersigned attorneys, alleges in this Complaint for violations of the federal securities laws (the "Complaint") the following based upon knowledge with respect to their own acts, and upon facts obtained through an investigation conducted by his counsel, which included, *inter alia*: (a) review and analysis of relevant filings made by aTyr Pharma Inc. ("aTyr" or the "Company") with the United States Securities and Exchange Commission (the "SEC"); (b) review and analysis of aTyr's public documents, conference calls, press releases, and stock chart; (c) review and analysis of securities analysts' reports and advisories concerning the Company; and (d) information readily obtainable on the internet.

Plaintiff believes that further substantial evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for discovery. Most of the facts supporting the allegations contained herein are known only to the defendants or are exclusively within their control.

NATURE OF THE ACTION

1. This is a federal securities class action on behalf of all investors who purchased or otherwise acquired aTyr common stock between January 16, 2025, and September 12, 2025, inclusive (the "Class Period"), seeking to recover damages caused by Defendants' violations of the federal securities laws (the "Class").

2. Defendants provided investors with material information concerning aTyr's Phase 3, randomized, double-blind, placebo-controlled study to evaluate the

safety and efficacy of intravenous Efzofitimod in patients with pulmonary sarcoidosis (EFZO-FIT). Defendants' statements included, among other things, aTyr's top executives' confidence in the forced taper approach of the Company's study design.

3. Defendants provided these overwhelmingly positive statements to investors while, at the same time, disseminating false and misleading statements and/or concealing material adverse facts concerning the efficacy of Efzofitimod, particularly, the drug's capability to allow a patient to completely taper their steroid usage. This caused Plaintiff and other shareholders to purchase aTyr's securities at artificially inflated prices.

4. The truth emerged on September 15, 2025 (pre-market) when aTyr hosted an investor call announcing that the EFZO-FIT study did not meet its primary endpoint. In pertinent part, Defendants announced that the study did not meet the primary endpoint in change from baseline in mean daily OSC dose at week 48. Additionally, aTyr announced that the Company's next step was to engage with the FDA to determine a path forward, given the disappointing topline results.

5. As a result, investors and analysts reacted immediately to aTyr's revelation. The price of aTyr's common stock declined from a closing market price of $6.03 per share on September 12, 2025 to $1.02 per share on September 15, 2025, a decline of 83.2% in the span of just a single day.

6. Investors have sustained significant damages as a result of Defendants' fraudulent statements. Plaintiff seeks to recover those damages by way of this lawsuit.

JURISDICTION AND VENUE

7. Plaintiff brings this action, on behalf of himself and other similarly situated investors, to recover losses sustained in connection with Defendants' fraud.

8. The claims asserted herein arise under and pursuant to §§10(b) and 20(a) of the Exchange Act (15 U.S.C. §§ 78j(b) and 78t(a)) and Rule 10b-5 promulgated thereunder by the SEC (17 C.F.R. §240.10b-5).

9. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§1331 and 1337, and Section 27 of the Exchange Act, 15 U.S.C. §78aa.

10. Venue is proper in this District pursuant to §27 of the Exchange Act and 28 U.S.C. §1391(b), as Defendant aTyr is headquartered in this District and a significant portion of its business, actions, and the subsequent damages to Plaintiff and the Class, took place within this District.

11. In connection with the acts, conduct, and other wrongs alleged in this Complaint, Defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including but not limited to, the United States mail, interstate telephone communications and the facilities of the national securities exchange.

THE PARTIES

12. Plaintiff purchased aTyr common stock at artificially inflated prices during the Class Period and was damaged upon the revelation of the Defendants' fraud. Plaintiff's certification evidencing his transaction(s) in aTyr is attached hereto.

13. aTyr Pharma Inc. is a Delaware corporation with its principal executive offices located at 10240 Sorrento Valley Road, Suite 300, San Diego, CA 92121. During the Class Period, the Company's common stock traded on the NASDAQ Stock Market (the "NASDAQ") under the symbol "ATYR."

14. Defendant Sanjay S. Shukla ("Shukla") was, at all relevant times, the President, Chief Executive Officer, and Director of aTyr.

15. Defendant Shukla is sometimes referred to herein as the "Individual Defendant." aTyr together with the Individual Defendant are referred to herein as the "Defendants."

16. The Individual Defendant, because of his position with the Company, possessed the power and authority to control the contents of aTyr's reports to the SEC, press releases, and presentations to securities analysts, money and portfolio managers, and institutional investors, *i.e.*, the market. The Individual Defendant was provided with copies of the Company's reports and press releases alleged herein to be misleading prior to, or shortly after, their issuance and had the ability and opportunity to prevent their issuance or cause them to be corrected. Because of his

position and access to material non-public information available to him, the Individual Defendant knew that the adverse facts specified herein had not been disclosed to, and were being concealed from, the public, and that the positive representations which were being made were then materially false and/or misleading. The Individual Defendant is liable for the false statements pleaded herein, as those statements were each "group-published" information, the result of the collective actions of the Individual Defendant.

17. aTyr is liable for the acts of the Individual Defendant, and its employees under the doctrine of respondeat superior and common law principles of agency as all the wrongful act complained of herein were carried out within the scope of their employment with authorization.

18. The scienter of the Individual Defendant, and other employees and agents of the Company are similarly imputed to aTyr under respondeat superior and agency principles.

SUBSTANTIVE ALLEGATIONS

A. Company Background

19. aTyr is a clinical stage biotechnology company leveraging evolutionary intelligence to translate tRNA synthetase biology into new therapies for fibrosis and inflammation. The Company's discovery platform is focused on unlocking hidden therapeutic intervention points by uncovering signaling pathways driven by its proprietary library of domains derived from all 20 tRNA synthetases.

B. Defendants Materially Misled Investors Concerning the Company's Phase 3 Study of Efzofitimod

January 16, 2025

20. On January 16, 2025, aTyr presented at the 43rd Annual J.P. Morgan Healthcare Conference. As part of the presentation Defendant Shukla provided an update on the Phase 3 study, in pertinent part:

> aTyr is a company that has a real major Phase III catalyst later this year in Q3. And much of the presentation is going to center around the opportunity in interstitial lung disease with our therapy efzofitimod. And it has been a journey to advance what we think is a paradigm shifting therapy in a multibillion dollar space.
>
> So we're carving out really new territory here, and we're the leading interstitial lung disease company in the world with one of the only programs to ever even make it to Phase III in these indications.
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> * * *
>
> Efzofitimod is our lead asset in Phase III. It's a first-in-class biologic with an approach to interstitial lung disease that is generating fantastic results thus far. And we'll talk to you about some of that data and why we feel that way. And how we're addressing interstitial lung disease with efzofitimod.
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> * * *
>
> And I'm sure you've heard a lot of companies over the last several days talked about dose response. We not only saw dose response, but we saw it in all of those end points we measured. So it gives us a lot of confidence moving here into Phase III.
>
> Last thing, no known safety issues. We are replacing toxic therapy. So patients deserve something that is not going to create a new burden of toxicity. This modality offers that opportunity. And it's why patients who are currently finishing our trial are demanding to remain in our

trial right now, even though they're blinded and we are blinded to what they're receiving -- the respite from some of the toxic therapies that they've been receiving for some times 5 or 10 years in this trial has been something that they want more of.

* * *

So efzofitimod is positioned as a frontline steroid-sparing and/or reducing agent. We are seeing quite remarkable steroid-sparing effects in our blinded reviews. But the idea here is, can we reduce at a minimum, reduce or maybe even eliminate steroids. And let's avoid some of those toxic effects. And let's also then avoid getting to those third-line agents, which don't work well either and also come with their own toxic baggage. So upwards of 75% of the patients, we think here could be targeted with efzofitimod.

* * *

Our global Phase III design is fully enrolled, a good timing for all of you. We're finished with enrollment, and now we're just waiting for data. This was now a well-powered and highly powered designed trial, 88 patients per arm. We took the 2 efficacious doses in Phase II forward. We finally enrolled 268 patients.

Some key things here. In the last trial, we noticed we could knock down steroids pretty well down to 5 milligrams, but we're leaning into that signal a little bit more in this trial, and we're attempting to taper people to 0. And we're already seeing benefit in many of the patients, as I mentioned, who have finished the trial. We're now refusing to go back on steroids.

So we've had to step up with an expanded access program rather quickly here, working with certain regions that allow it. But this is a patient -- this is a trial where we'll look to taper down from an entry dose of 7.5 to 25 and then observe patients from week 12 to week 48. ***What we expect to see in the placebo population is flaring exacerbation, and you'll see that prednisone dose jump back up.***

> We think using our drug, we can keep patients at low or no dose. But that's really what we're trying to basically see with our statistical delta. I'm trying to see a difference in that average daily prednisone dose. And even if we could peel away 1 or 2 milligrams, agencies look at that as important.
>
> Why? Because it's a cumulative reduction of that burden, 10, 15, 20 less milligrams of prednisone a week, 80, 100 less a month, that adds up to positive benefit for these patients with their quality of life. If we can do that and maintain that immune balance, I think we have something really special here.
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> (Emphasis added).

21. Also during the conference, Defendant Shukla answered analyst questions pertaining to the Phase 3 study design, in pertinent part:

> <Q: Unknown Attendee> Maybe I'll ask the next question. As it relates to the Phase III, can you explain the steroid taper protocol? How is it similar or different to the Phase II? And how are you thinking about minimizing the PI discretion and subjectivity?
>
> <A: Defendant Shukla> Yes, it's a great question because with some of those approved therapies that are out there, there was a lot of contentious debate because there's investigator subjective judgment. And one of the things we work with the agency is, let's have a validated tool that guides taper decisions. And perhaps they even learned from the TAVNEOS approval.
>
> So we have a tool we use the PGA. It's a validated instrument that every 2 weeks, we're assaying these patients, how are you doing? How have your last 2 weeks been? And if there's any worsening on that PGA, even a 1 point worsening, there's an automatic edit check that goes out from drug -- from data management even saying we should see a steroid increase.

> So patients are asked to follow their prednisone dose every day in their trial. If there's a worsening in PGA every 2 weeks, it's being assayed, and that guides some of that judgment. So we're taking a little bit of the keys away of the car from the pulmonologists here because we want to have that titration based on the PGA.
>
> ***How is it different? One of the key differences, as I mentioned, we knocked everyone down to 5 milligrams and then look to see if they flare in the last trial. This trial we're knocking folks down to 0. So what we expect is more unmasking of disease in placebo, more steroid rescue there. That could then serve as how I said with the area into the curve, a delta emerge. So those are some of the key differences on how we're minimizing some of that investigator bias, but also potentially seeing a greater signal of steroids bearing with EFZO.***
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> (Emphasis added).

March 13, 2025

22. On March 13, 2025, aTyr announced fourth quarter financial results and hosted an associated earnings call. CEO Sanjay Shukla provided an update on the Phase 3 study, in relevant part:

> 2024 was an important year for aTyr as we completed enrollment in our global pivotal Phase III EFZO-FIT study of efzofitimod in patients with pulmonary sarcoidosis in major form of ILD, which is our lead indication.
>
> This is the largest interventional study ever conducted in pulmonary sarcoidosis, and we look forward to releasing top-line data from this study in the third quarter of this year.
>
> EFZO-FIT is a randomized, double-blind, placebo-controlled 52-week study. It consists of 3 parallel cohorts, randomized equally to either 3 milligrams per kilogram or 5 milligrams per kilogram of efzofitimod or placebo, dosed intravenously monthly for a total of 12 doses.

The study enrolled 268 patients at 85 centers in 9 countries. The trial design incorporates a forced steroid taper with steroid reduction as the primary endpoint of the study.

Secondary endpoints include measures of sarcoidosis quality of life and lung function. Patients who complete the study and wish to receive treatment with efzofitimod outside of the clinical trial are eligible to participate in an individual patient expanded access program, or EAP.

The EAP was implemented primarily based on feedback from multiple study principal investigators or PIs whose patients requested to continue treatment once they had completed the study. These patients will receive 5 milligrams per kilogram of efzofitimod while in the EAP.

However, PIs, patients, and the company remain blinded to the EFZO-FIT treatment assignments of these EAP patients. Additionally, we have now held 4 positive Data and Safety Monitoring Board or DSMB reviews for this study, all of which have identified no safety concerns and recommended that the study continue unmodified.

The most recent preplanned independent review indicates that the study continues to track well from a safety standpoint. We remain confident in the favorable safety profile we have seen for efzofitimod to date, which we believe is the key value proposition of the drug.

Finally, we'll get our first look at the blinded baseline demographic and disease characteristics of the patients enrolled in the study at the upcoming American Thoracic Society Conference, or ATS, which is scheduled to take place mid-May in San Francisco.

In a poster, we will be able to get a sense of the profile of the patients enrolled, including baseline steroid dose and background immunomodulator use and how the profile matches the inclusion and exclusion criteria for the study.

As part of our planning for the Phase III readout for EFZO-FIT, we recently held a Type C meeting with the US Food and Drug Administration or FDA. The main objective of this meeting was to discuss the statistical analysis plan, or SAP, for the study, including how the primary and secondary endpoints are assessed statistically.

> ***For the primary endpoint, we determined how steroid reduction will be analyzed in the SAP.***
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> ***As we previously discussed, we initially proposed that we measure steroid reduction based on calculating the average daily steroid dose between week 12 and week 48, which is the protocol-specified post-steroid taper period.***
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> ***We viewed this as a conservative way of measuring steroid reduction in the study. Based on FDA feedback, we will now measure steroid reduction as the absolute change from baseline to week 48.***
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> We feel this change creates a more simplified assessment to capture the potential steroid delta between groups. The statistical powering for the study remains intact, and we are pleased with the clarification around how we will measure steroid reduction.
>
> With limited clinical studies in sarcoidosis as a benchmark, we are pioneering a path forward to measure how we can potentially improve the lives of these patients.
>
> While we brought you up to date on EFZO-FIT, I want to take a few minutes to provide you with critical insights into the pulmonary sarcoidosis landscape in the US that have emerged from some of our early pre-commercial activities.
>
> We believe these findings support a potentially larger market opportunity for efzofitimod in sarcoidosis.
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> (Emphasis added.)

23. During a question-and-answer portion of the same earnings call, Defendant Shukla answered questions from analysts in attendance, in relevant part:

> <Q: Derek Christian Archila -- Wells Fargo Securities – Analyst> And then just a follow-up here. I know you highlighted in the prepared comments that there was investigator and patient enthusiasm for the EAP. So I just wanted to ask if you have any idea in terms of the

percentage of the patients who are in the trial rolling over into the expanded access or a new program there.

<A: Sanjay S. Shukla> Yes, it's a common question I get: how many patients? What's the percent? And I want to start by saying we have seen continued interest, growing interest. But the issue really here is that not all countries and not all centers can participate based on their local regulatory requirements. I've said this before: countries like Japan, for example, do not have a pathway to participate in an EAP-type program.

So you'd have to subtract out all of those regions that aren't involved and then try to come up with a "crude measure of response, which is what I think a lot of investors want to do here.

What I can say is that the interest is still very robust. I was just with about 30 experts recently this past weekend. There continues to be more and more interest in participating in the EAP.

We have committed to helping patients who are performing well in the trial to roll into the EAP, but it's an individual site-by-state site decision because, of course, we are not in a formal open-label type extension. So very pleased with the progress. I think it's a great signal, a great interim biomarker, if you will.

And we're going to continue to support those patients to move into that EAP. But again, to get into specific numbers and try to get into the math, it's probably not helpful.

And just as a reminder, we are blinded. We're blinded to what these patients are on during the trial. So there's always a chance that all of these patients are on placebo and that they have been able to taper more or less off their steroids and it doesn't have anything to do with the drug.

So people know me to be rather conservative in my messaging. I just think it's a great signal to see that patients who are finishing a trial want to remain in the trial. That, to me, as a former clinician, speaks very powerful to what something is happening during the trial.

<Q: Yasmeen Rahimi -- Piper Sandler & Co – Analyst> Congrats on all the exciting progress and an exciting year ahead of us. I got 2 quick questions. One is around managing patients with steroid reduction that led to engaging with the agency to make this change from a sort of clinical perspective.

Just maybe if you could kind of shed light on how that meeting came about and why the change makes absolute sense, but maybe the question would be why implement it now and the rationale behind it? That's sort of question one.

And question 2, it's really exciting to see the baseline demographics from the study here upcoming at ATS.

Could you maybe help us understand what we should be looking for? Obviously, it's a tremendous study with globally, lots of work that went into it. So just kind of help us framework on what are some of the measures that we should be looking closely to in terms of this patient population. And I'll jump back in the queue.

<A: Sanjay S. Shukla> Great questions. I will take the first one and say that the market research is not necessarily really connected to this type of meeting. This is a little inside baseball biostatistics but typically before you lock your database, you have all the rules set up with the Biostats division.

And as a former biostatistician, it's important that we really agree to all the pre-hoc analysis. I think far too many times in biotech, we implement rules, and then after data comes out, we start to do post-hoc analysis and cherry-pick and cut and slice the data. And I wish more biopharmas wouldn't do that.

So we're very rigorous, and I like to be very rigorous around, hey, let's get everything pre-hoc organized down to the details exactly how do you want us to program and even look at some of this steroid reduction.

But we have proposed something that I viewed as a fairly conservative way of looking at steroids and the average daily steroid dose upon interacting with the FDA here. Their view was this approach would be fine, the suggested approach where we're looking at just a simplified change from baseline.

I'm not going to disagree with that. I'm going to go ahead and implement that approach because, as I said, I think this actually allows us to potentially maximize a signal at the end of the trial.

Remember, there's a forced steroid taper component. Placebo patients will get the benefit of that reduction of the forced steroid taper. But now looking at the end of the trial, the clinical team and I view this as potentially a way to maximize a signal here because as I pointed out, all those peaks and valleys that occur over the course of the trial now should be adequately handled, observed and now we'll have a true measure at the end of the trial.

Your second question was really around the baseline demographics. It's important to put this out. The community is really interested. They want to see data as quickly as possible. Many of our PIs have said, can we take a look at background immunomodulator use. We just want to see the data.

We'd like to see what the average daily steroid doses, duration of disease, and things of that nature. So, these are all important things for us to show to the community, and we already have that data. It's just baseline data. So, why not put it out at a major medical conference?

The important thing for investors to pay attention to is the average prednisone dose. I'll remind everyone in the last trial, the Phase II trial, we had an average dose somewhere in that 11 to 13 range.

This trial, where we're enrolling patients with a slightly lower basement dose of 7.5 milligrams, I expect that prednisone dose may be maybe a little bit lower, but we want to take a look at that. And then that helps with all the investors that want to do the modeling with regards to how much steroid delta you want to see there.

So it's important to get this baseline data out there, make sure we more or less enrolled per the IE criteria in our trial.

(Emphasis added.)

May 7, 2025

24. On May 7, 2025, aTyr announced first quarter 2025 financial results and provided a corporate update. The press release included an update pertaining to aTyr's Phase 3 EFZO-FIT study, in pertinent part:

> On track to announce topline data in the third quarter of 2025 from the global pivotal Phase 3 EFZO-FIT™ study to evaluate the efficacy and safety of efzofitimod in patients with pulmonary sarcoidosis. This is a randomized, double-blind, placebo-controlled, 52-week study consisting of three parallel cohorts randomized equally to either 3.0 mg/kg or 5.0 mg/kg of efzofitimod or placebo administered intravenously monthly for a total of 12 doses. The study enrolled 268 patients with pulmonary sarcoidosis at 85 centers in nine countries. The trial design incorporates a forced steroid taper. ***The primary endpoint of the study is steroid reduction measured as the absolute change from baseline to week 48.*** Secondary endpoints include measures of sarcoidosis symptoms and lung function. Patients who complete the study and wish to receive treatment with efzofitimod outside of the clinical trial are eligible to participate in an Individual Patient Expanded Access Program.
>
> (Emphasis added.)

August 7, 2025

25. On August 7, 2025, aTyr announced second quarter 2025 financial results and provided a corporate update. The press release included an update pertaining to aTyr's Phase 3 EFZO-FIT study, in relevant part:

> Completed the last patient visit in the global pivotal Phase 3 EFZO-FIT™ study to evaluate the efficacy and safety of efzofitimod in patients with pulmonary sarcoidosis. Topline data from the study are expected in mid-September 2025. This is a randomized, double-blind, placebo-controlled, 52-week study consisting of three parallel cohorts randomized equally to either 3.0 mg/kg or 5.0 mg/kg of efzofitimod or placebo administered intravenously monthly for a total of 12 doses. The

> study enrolled 268 patients with pulmonary sarcoidosis across 85 centers in nine countries. The trial design incorporates a forced steroid taper. The primary endpoint of the study is steroid reduction measured as the absolute change from baseline to week 48. Secondary endpoints include measures of sarcoidosis symptoms and lung function. Patients who complete the study and wish to receive treatment with efzofitimod outside of the clinical trial are eligible to participate in an Individual Patient Expanded Access Program.

26. Also as part of the press release, Defendant Shukla issued a statement pertaining to the Phase 3 EFZO-FIT study, in pertinent part:

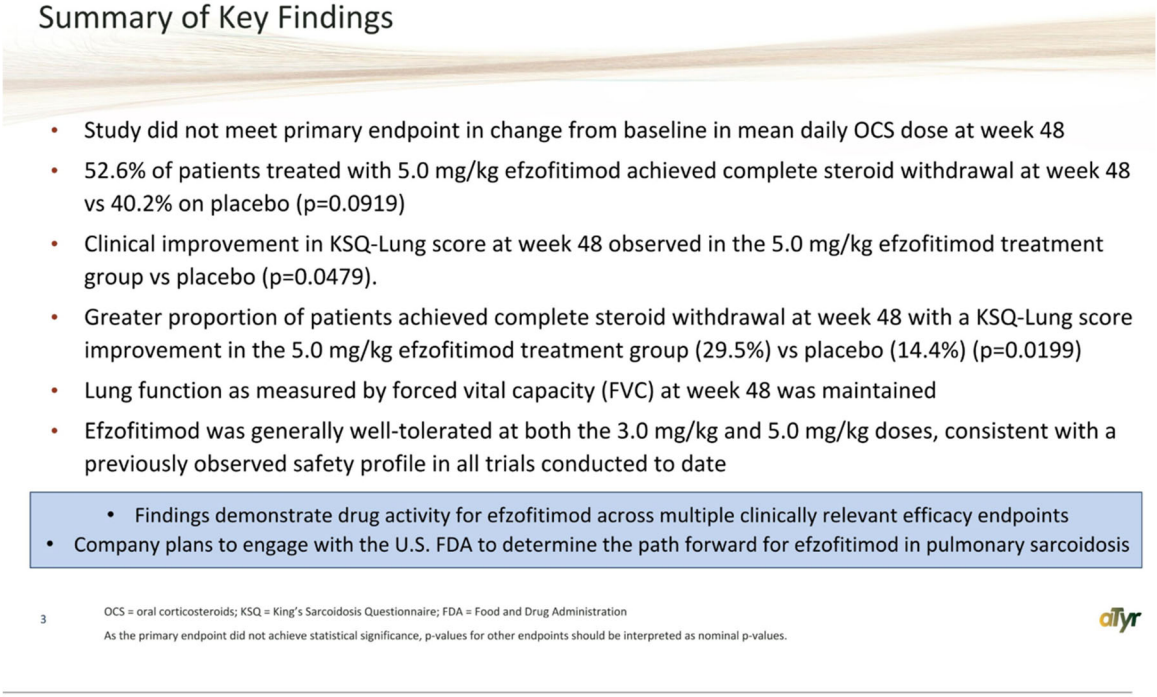
> With the recent completion of the last patient visit in our Phase 3 EFZO-FIT™ study of efzofitimod in pulmonary sarcoidosis, a major form of interstitial lung disease (ILD), we are on track to report topline data in mid-September. This upcoming readout represents a major inflection point for aTyr, our clinical program for efzofitimod in ILD, and the broader sarcoidosis community, and we look forward to sharing the results.

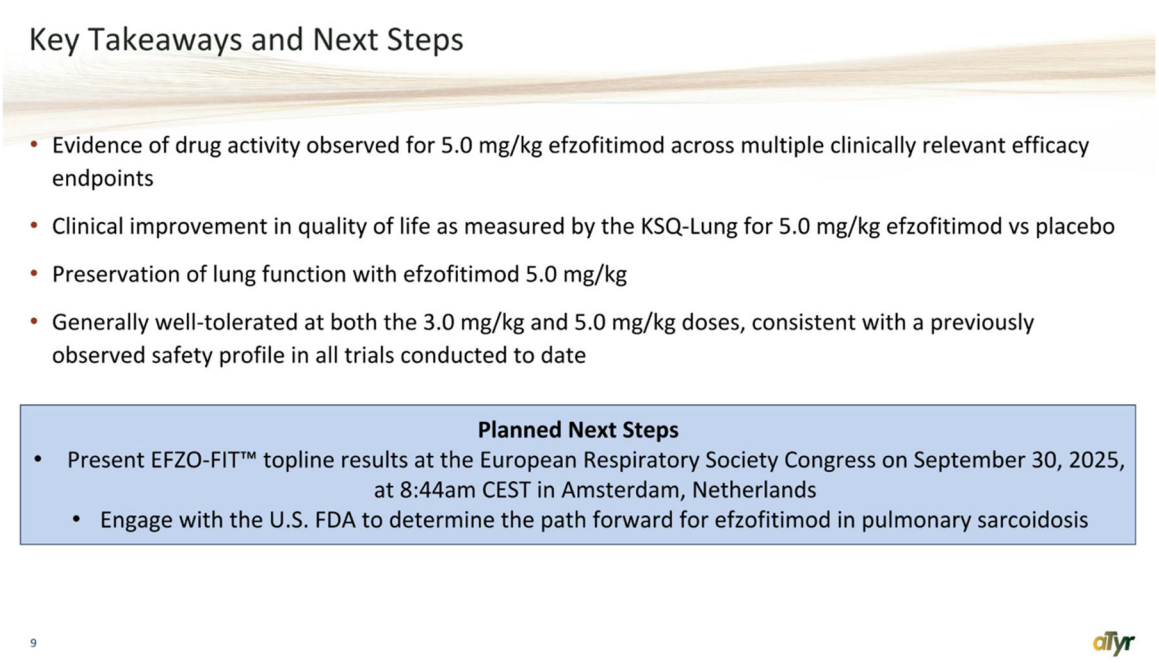
27. The above statements in Paragraphs 20 to 26 were false and/or materially misleading. Specifically, Defendants created adverse facts concerning aTyr's study design for EFZO-FIT, giving the false impression that Efzofitimod would meet its primary endpoint. In fact, Defendants misled and deceived investors by crafting a narrative that the Phase 3 EFZO-FIT study would provide a way for patients to fully remove steroids from their treatment plans. Defendants failed, however, to disclose that there may be other factors that permit patients to completely remove steroids from their treatment plans, thus, their Phase 3 EFZO-FIT study failed to meet the primary endpoint in change from baseline in mean daily OCS dose at week 48.

C. The Truth Emerges

September 15, 2025

28. On September 15, 2025 (pre-market), aTyr hosted an investor presentation announcing topline results for Phase 3 EZFO-FIT study of Efzofitimod in pulmonary sarcoidosis. In pertinent part:





29. As part of the investor presentation, Defendant Shukla detailed the topline results, in relevant part:

> The study, however, did not meet the primary endpoint of change from baseline in mean daily oral corticosteroid or OCS dose at week 48. Some additional key findings include 52.6% of patients treated with 5 milligrams per kilogram of efzofitimod, achieved complete steroid withdrawal at week 48 versus 40.2% on placebo. A clinical improvement in the king sarcoidosis questionnaire or KSQ lung score changed from baseline at week 48 was observed for 5 milligrams per kilogram of efzofitimod compared to placebo. And a greater proportion of patients achieved both complete steroid withdrawal at week 48, with KSQ lung score improvement in the 5-milligram per kilogram efzofitimod arm compared to placebo. The lung function as measured by [indiscernible] capacity or FVC at week 48 was maintained. And finally, efzofitimod was well tolerated at both the 3 and 5-milligram per kilogram doses with a safety profile consistent with that what we've observed in all trials conducted to date.
>
> This study demonstrates that patients with chronic symptomatic sarcoidosis can be managed with substantially lower steroid doses than previously thought without the fear of worsening disease. In spite of a higher-than-anticipated placebo response, we found that treatment with

efzofitimod was associated with a greater amount of steroid reduction, including steroid withdrawal, a clinical improvement and the quality of life for these patients and the maintenance of lung function. This is the first Phase III trial and largest ever interventional study conducted in pulmonary and the data generated from this study is likely to inform treatment practices for all sarcoidosis patients moving forward. Based on these consistent findings, which we believe indicate drug activity for efzofitimod across multiple clinically relevant efficacy endpoints, we plan to engage with the FDA to determine the path forward for efzofitimod in pulmonary sarcoidosis.

As a reminder, EFZO-FIT was a global Phase III 52-week randomized, double-blind, placebo-controlled, multicenter study in 268 patients with pulmonary sarcoidosis. It consisted of 3 parallel cohorts, randomized equally to either 3 or 5 milligrams per kilogram of efzofitimod or placebo, dosed intravenously once a month for a total of 12 doses. The primary endpoint of the study was steroid reduction at week 48. Additionally, clinical and efficacy assessments included the KSQ lung score or FVC, complete steroid withdrawal all at week 48.

In terms of the trial design, the study included a protocol guided steroid taper in the first 12 weeks of the study, followed by continued taper or rescue until week 48. Steroid taper and titration were guided by the Patient Global Assessment, or PGA, which was administered every 2 weeks. If there was any clinical worsening the principal investigator of PI was required, to rescue based on this PGA. And if there was improvement, the PI was required to taper.

* * *

In our modeling, we assumed that patients on efzofitimod would taper from baseline to an average daily prednisone dose between 1 to 4 milligrams, with placebo expected to taper to between 4 to 7. So the drug performed accordingly to what we projected. However, we did not achieve statistical significance as the placebo tapering outperformed even our most aggressive modeling. Another important assessment of steroid reduction in the study was patients that achieved complete steroid withdrawal at week 48.

30. The aforementioned investor presentation and statements made by the Individual Defendant was misleading and in direct contrast to statements made in his previous press releases and presentations. In his previous statements, Defendant Shukla reiterated that the EFZO-FIT study was a "real major Phase III catalyst," particularly pertaining to the capability of Efzofitimod to remove steroid usage from pulmonary sarcoidosis patients' treatment plans.

31. Analysts expressed surprise and concern at the Company's primary endpoint miss. In particular, RBC Capital Markets slashed its price target to $1.50 from $16.00, noting that the miss "creates a challenging path forward for Efzo."

32. Similarly, Freedom Broker published a report titled "The EFZO-FIT study's Phase III concluded without meeting primary objectives" and decreased its price target for aTyr to $1.00 from $9.50. In particular, the report noted, in pertinent part:

> The study did not meet its primary endpoints (steroid dose reduction), showing only minor differences from placebo. Nonetheless, statistically significant improvements were recorded in several secondary indicators, such as improved quality of life (KSQ-Lung Score) and a higher rate of complete steroid discontinuation in the efzofitimod 5.0 mg/kg group. Given these results, the company is committed to continuing the program and is preparing for a meeting with the FDA, anticipated in the first half of 2026. This meeting will be critical in shaping the future strategy for efzofitimod therapy. Considering the failure to achieve the primary endpoints in the EFZO-FIT study and the persisting uncertainty in the future development pathway for the therapy, we have revised the probability of approval downward. This revision has negatively affected our financial performance forecast adjusted for the probability of approval. Consequently, we are decreasing our price target for aTyr shares from

> $9.50 to $1.00 and changing our recommendation from "Buy" to "Hold." The forthcoming meeting with the FDA will be pivotal in assessing the potential path forward for efzofitimod therapy.

33. As a result, investors and analysts reacted immediately to aTyr's revelation. The price of aTyr's common stock declined from a closing market price of $6.03 per share on September 12, 2025 to $1.02 per share on September 15, 2025, a decline of 83.2% in the span of just a single day.

D. Loss Causation and Economic Loss

34. During the Class Period, as detailed herein, aTyr and Defendants made materially false and misleading statements and engaged in a scheme to deceive the market and a course of conduct that artificially inflated the price of aTyr's common stock and operated as a fraud or deceit on Class Period purchasers of aTyr's common stock by materially misleading the investing public. Later, when aTyr and Defendants' prior misrepresentations and fraudulent conduct became apparent to the market, the price of aTyr's common stock materially declined, as the prior artificial inflation came out of the price over time. As a result of their purchases of aTyr's common stock during the Class Period, Plaintiff and other members of the Class suffered economic loss, *i.e.*, damages under federal securities laws.

35. aTyr's stock price fell in response to the corrective event on September 12, 2025, as alleged *supra*. On September 12, 2025, Defendants disclosed information that was directly related to their prior misrepresentations and material

omissions concerning the efficacy of aTyr's Phase 3 trial intravenous Efzofitimod in patients with pulmonary sarcoidosis.

E. Presumption of Reliance; Fraud-On-The-Market

36. At all relevant times, the market for aTyr's common stock was an efficient market for the following reasons, among others:

(a) aTyr's common stock met the requirements for listing and was listed and actively traded on the NASDAQ during the Class Period, a highly efficient and automated market;

(b) aTyr communicated with public investors via established market communication mechanisms, including disseminations of press releases on the national circuits of major newswire services and other wide-ranging public disclosures, such as communications with the financial press and other similar reporting services;

(c) aTyr was followed by several securities analysts employed by major brokerage firms who wrote reports that were distributed to the sales force and certain customers of their respective brokerage firms during the Class Period. Each of these reports was publicly available and entered the public marketplace; and

(d) Unexpected material news about aTyr was reflected in and incorporated into the Company's stock price during the Class Period.

37. As a result of the foregoing, the market for aTyr's common stock promptly digested current information regarding the Company from all publicly

available sources and reflected such information in aTyr's stock price. Under these circumstances, all purchasers of aTyr's common stock during the Class Period suffered similar injury through their purchase of aTyr's common stock at artificially inflated prices, and a presumption of reliance applies.

38. Alternatively, reliance need not be proven in this action because the action involves omissions and deficient disclosures. Positive proof of reliance is not a prerequisite to recovery pursuant to ruling of the United States Supreme Court in *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972). All that is necessary is that the facts withheld be material in the sense that a reasonable investor might have considered the omitted information important in deciding whether to buy or sell the subject security.

F. No Safe Harbor; Inapplicability of Bespeaks Caution Doctrine

39. The statutory safe harbor provided for forward-looking statements under certain circumstances does not apply to any of the material misrepresentations and omissions alleged in this Complaint. As alleged above, Defendants' liability stems from the fact that they provided investors with statements about regulatory developments and prospects while at the same time omitting acute risks undermining the validity of their statements.

40. To the extent certain of the statements alleged to be misleading or inaccurate may be characterized as forward looking, they were not identified as "forward-looking statements" when made and there were no meaningful cautionary

statements identifying important factors that could cause actual results to differ materially from those in the purportedly forward-looking statements.

41. Defendants are also liable for any false or misleading "forward-looking statements" pleaded because, at the time each "forward-looking statement" was made, the speaker knew the "forward-looking statement" was false or misleading and the "forward-looking statement" was authorized and/or approved by an executive officer of aTyr who knew that the "forward-looking statement" was false. Alternatively, none of the historic or present-tense statements made by Defendants were assumptions underlying or relating to any plan, projection, or statement of future economic performance, as they were not stated to be such assumptions underlying or relating to any projection or statement of future economic performance when made, nor were any of the projections or forecasts made by the Defendants expressly related to or stated to be dependent on those historic or present-tense statements when made.

CLASS ACTION ALLEGATIONS

42. Plaintiff brings this action as a class action pursuant to Federal Rule of Civil Procedure 23(a) and (b)(3) on behalf of a Class, consisting of all those who purchased or otherwise acquired aTyr's common stock during the Class Period (the "Class"); and were damaged upon the revelation of the alleged corrective disclosure. Excluded from the Class are Defendants herein, the officers and directors of the Company, at all relevant times, members of their immediate families and their legal

representatives, heirs, successors or assigns and any entity in which Defendants have or had a controlling interest.

43. The members of the Class are so numerous that joinder of all members is impracticable. Throughout the Class Period, aTyr's common stock were actively traded on the NASDAQ. While the exact number of Class members is unknown to Plaintiff at this time and can be ascertained only through appropriate discovery, Plaintiff believes that there are hundreds or thousands of members in the proposed Class. Record owners and other members of the Class may be identified from records maintained by aTyr or its transfer agent and may be notified of the pendency of this action by mail, using the form of notice similar to that customarily used in securities class actions. As of August 1, 2025, there were 97.99 million shares of the Company's common stock outstanding. Upon information and belief, these shares are held by thousands, if not millions, of individuals located throughout the country and possibly the world. Joinder would be highly impracticable.

44. Plaintiff's claims are typical of the claims of the members of the Class as all members of the Class are similarly affected by Defendants' wrongful conduct in violation of federal law that is complained of herein.

45. Plaintiff will fairly and adequately protect the interests of the members of the Class and has retained counsel competent and experienced in class and securities litigation. Plaintiff has no interests antagonistic to or in conflict with those of the Class.

46. Common questions of law and fact exist as to all members of the Class and predominate over any questions solely affecting individual members of the Class. Among the questions of law and fact common to the Class are:

(a) whether the federal securities laws were violated by Defendants' acts as alleged herein;

(b) whether statements made by Defendants to the investing public during the Class Period misrepresented material facts about the business, operations and management of aTyr;

(c) whether the Individual Defendants caused aTyr to issue false and misleading financial statements during the Class Period;

(d) whether Defendants acted knowingly or recklessly in issuing false and misleading financial statements;

(e) whether the prices of aTyr's common stock during the Class Period were artificially inflated because of the Defendants' conduct complained of herein; and

(f) whether the members of the Class have sustained damages and, if so, what is the proper measure of damages.

47. A class action is superior to all other available methods for the fair and efficient adjudication of this controversy since joinder of all members is impracticable. Furthermore, as the damages suffered by individual Class members may be relatively small, the expense and burden of individual litigation make it

impossible for members of the Class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.

COUNT I

Against All Defendants for Violations of Section 10(b) and Rule 10b-5 Promulgated Thereunder

48. Plaintiff repeats and realleges each and every allegation contained above as if fully set forth herein.

49. This Count is asserted against defendants and is based upon Section 10(b) of the Exchange Act, 15 U.S.C. § 78j(b), and Rule 10b-5 promulgated thereunder by the SEC.

50. During the Class Period, Defendants engaged in a plan, scheme, conspiracy and course of conduct, pursuant to which they knowingly or recklessly engaged in acts, transactions, practices and courses of business which operated as a fraud and deceit upon. Plaintiff and the other members of the Class; made various untrue statements of material facts and omitted to state material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; and employed devices, schemes and artifices to defraud in connection with the purchase and sale of securities. Such scheme was intended to, and, throughout the Class Period, did: (i) deceive the investing public, including Plaintiff and other Class members, as alleged herein; (ii) artificially inflate and maintain the market price of aTyr common stock; and (iii) cause Plaintiff and other

members of the Class to purchase or otherwise acquire aTyr's securities at artificially inflated prices. In furtherance of this unlawful scheme, plan and course of conduct, Defendants, and each of them, took the actions set forth herein.

51. Pursuant to the above plan, scheme, conspiracy and course of conduct, each of the Defendants participated directly or indirectly in the preparation and/or issuance of the quarterly and annual reports, SEC filings, press releases and other statements and documents described above, including statements made to securities analysts and the media that were designed to influence the market for aTyr's securities. Such reports, filings, releases and statements were materially false and misleading in that they failed to disclose material adverse information and misrepresented the truth about the Company.

52. By virtue of their positions at the Company, Defendants had actual knowledge of the materially false and misleading statements and material omissions alleged herein and intended thereby to deceive Plaintiff and the other members of the Class, or, in the alternative, Defendants acted with reckless disregard for the truth in that they failed or refused to ascertain and disclose such facts as would reveal the materially false and misleading nature of the statements made, although such facts were readily available to Defendants. Said acts and omissions of Defendants were committed willfully or with reckless disregard for the truth. In addition, each Defendant knew or recklessly disregarded that material facts were being misrepresented or omitted as described above.

53. Information showing that Defendants acted knowingly or with reckless disregard for the truth is peculiarly within Defendants' knowledge and control. As the senior manager and/or director of the Company, the Individual Defendant had knowledge of the details of aTyr's internal affairs.

54. The Individual Defendant is liable both directly and indirectly for the wrongs complained of herein. Because of his position of control and authority, the Individual Defendant was able to and did, directly or indirectly, control the content of the statements of the Company. As officer and/or director of a publicly-held company, the Individual Defendant had a duty to disseminate timely, accurate, and truthful information with respect to aTyr's businesses, operations, future financial condition and future prospects. As a result of the dissemination of the aforementioned false and misleading reports, releases and public statements, the market price of aTyr's common stock was artificially inflated throughout the Class Period. In ignorance of the adverse facts concerning the Company which were concealed by Defendants, Plaintiff and the other members of the Class purchased or otherwise acquired aTyr's common stock at artificially inflated prices and relied upon the price of the common stock, the integrity of the market for the common stock and/or upon statements disseminated by Defendants, and were damaged thereby.

55. During the Class Period, aTyr's common stock was traded on an active and efficient market. Plaintiff and the other members of the Class, relying on the

materially false and misleading statements described herein, which the Defendants made, issued or caused to be disseminated, or relying upon the integrity of the market, purchased or otherwise acquired shares of aTyr's common stock at prices artificially inflated by Defendants' wrongful conduct. Had Plaintiff and the other members of the Class known the truth, they would not have purchased or otherwise acquired said common stock, or would not have purchased or otherwise acquired them at the inflated prices that were paid. At the time of the purchases and/or acquisitions by Plaintiff and the Class, the true value of aTyr's common stock was substantially lower than the prices paid by Plaintiff and the other members of the Class. The market price of aTyr's common stock declined sharply upon public disclosure of the facts alleged herein to the injury of Plaintiff and Class members.

56. By reason of the conduct alleged herein, Defendants knowingly or recklessly, directly or indirectly, have violated Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder.

57. As a direct and proximate result of Defendants' wrongful conduct, Plaintiff and the other members of the Class suffered damages in connection with their respective purchases, acquisitions and sales of the Company's common stock during the Class Period, upon the disclosure that the Company had been disseminating misrepresented financial statements to the investing public.

COUNT II

Against the Individual Defendants
for Violations of Section 20(a) of the Exchange Act

58. Plaintiff repeats and realleges each and every allegation contained in the foregoing paragraphs as if fully set forth herein.

59. During the Class Period, the Individual Defendant participated in the operation and management of the Company, and conducted and participated, directly and indirectly, in the conduct of the Company's business affairs. Because of his senior position, he knew the adverse non-public information about aTyr's misstatements.

60. As officer and/or director of a publicly owned company, the Individual Defendant had a duty to disseminate accurate and truthful information, and to correct promptly any public statements issued by aTyr which had become materially false or misleading.

61. Because of his position of control and authority as senior officer, the Individual Defendant was able to, and did, control the contents of the various reports, press releases and public filings which aTyr disseminated in the marketplace during the Class Period concerning the misrepresentations. Throughout the Class Period, the Individual Defendant exercised his power and authority to cause aTyr to engage in the wrongful acts complained of herein. The Individual Defendant therefore, was a "controlling person" of the Company within the meaning of Section 20(a) of the

Exchange Act. In this capacity, he participated in the unlawful conduct alleged which artificially inflated the market price of aTyr's common stock.

62. The Individual Defendant, therefore, acted as a controlling person of the Company. By reason of his senior management position and/or being director of the Company, the Individual Defendant had the power to direct the actions of, and exercised the same to cause, aTyr to engage in the unlawful acts and conduct complained of herein. The Individual Defendant exercised control over the general operations of the Company and possessed the power to control the specific activities which comprise the primary violations about which Plaintiff and the other members of the Class complain.

63. By reason of the above conduct, the Individual Defendant and/or aTyr are liable pursuant to Section 20(a) of the Exchange Act for the violations committed by the Company.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff demand judgment against Defendants as follows:

A. Determining that the instant action may be maintained as a class action under Rule 23 of the Federal Rules of Civil Procedure, and certifying Plaintiff as the Class representatives;

B. Requiring Defendants to pay damages sustained by Plaintiff and the Class by reason of the acts and transactions alleged herein;

C. Awarding Plaintiff and the other members of the Class pre-judgment and post-judgment interest, as well as their reasonable attorneys' fees, expert fees and other costs; and

D. Awarding such other and further relief as this Court may deem just and proper.

DEMAND FOR TRIAL BY JURY

Plaintiff hereby demands a trial by jury.

Dated: October 9, 2025