UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

ADRIAN ALEXANDRU, Individually and on Behalf of All Others Similarly Situated, Plaintiff, v. APPLIED THERAPEUTICS, INC., SHOSHANA SHENDELMAN, and RICCARDO PERFETTI, Defendants.	Case No. 1:24-cv-09715 **COMPLAINT FOR VIOLATIONS OF THE FEDERAL SECURITIES LAWS** **CLASS ACTION** Demand for Jury Trial

Plaintiff Adrian Alexandru ("Plaintiff"), individually and on behalf of all other persons similarly situated, by his undersigned attorneys, alleges in this Complaint for violations of the federal securities laws (the "Complaint") the following based upon knowledge with respect to his 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 Applied Therapeutics, Inc. ("Applied Therapeutics" or the "Company") with the United States Securities and Exchange Commission (the "SEC"); (b) review and analysis of Applied Therapeutics' 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 Applied Therapeutics securities between January 3, 2024 and December 2, 2024, 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 Applied Therapeutics' Phase III INSPIRE trial results for govorestat and the drug's efficacy in treating Galactosemia. Defendants' statements included, among other things, confidence in the Company's New Drug Application to the FDA for govorestat, submission of a Marketing Authorization Authority to the European Medicines Agency for the same, positive clinical outcomes data from the Phase 3 registrational ACTION-Galactosemia Kids study in children age 2-17 with Galactosemia, the Phase 1/2 ACTION-Galactosemia study in adult patients with Galactosemia, and preclinical data as well as positive interim trial results from the Phase III INSPIRE trial.

3. Defendants provided these positive statements to investors while, at the same time, disseminating false and materially misleading statements and/or concealing material adverse facts concerning the true state of Applied Therapeutics' Phase III INSPIRE trial; notably, electronic data capture issues and a dosing error in the dose-escalation phase of the study. Such statements absent these material facts caused Plaintiff and other shareholders to purchase Applied Therapeutics' securities at artificially inflated prices.

4. Investors began to question the veracity of Defendants' public statements on November 27, 2024, when Applied Therapeutics issued a press release announcing that it had

received a Complete Response Letter (CRL) for the New Drug Application (NDA) for govorestat. The CRL indicated that the FDA completed its review of the application and determined that it was unable to approve the NDA in its current form citing deficiencies in the clinical application.

5. Investors and analysts reacted immediately to Applied Therapeutics' revelation. The price of Applied Therapeutics' common stock declined dramatically. From a closing market price of $10.21 per share on November 26, 2024, Applied Therapeutics' stock price fell to $8.57 per share on November 27, 2024 before falling further to $2.03 on November 29, 2024 and $1.75 per share on December 2, 2024, a total decline of more than 80%.

6. Then, after market hours on December 2, 2024, Applied Therapeutics disclosed it received a "warning letter" from the FDA referring to the clinical trial issues underlying the CRL. According to the Company's description of the "warning letter," the FDA stated in pertinent part that: "The letter identified issues related to electronic data capture, which the Company believes were addressed in prior communications with the agency, including by providing detailed paper and video records. The letter also refers to a dosing error in the dose-escalation phase of the study resulting in slightly lower levels than targeted in a limited number of patients, which was remedied prior to achieving maintenance dosing. Detailed records were maintained by the Company under FDA regulatory requirements, and this information was provided to FDA. The Company intends to respond within the permitted 15 business days to address these issues."

7. Applied Therapeutics' disclosure of the "warning letter" prompted a further decline in the stock price as investors discovered the seriousness and severity of the Company's clinical trial errors. From a closing market price of $1.75 per share on December 2, 2024, Applied Therapeutics' stock price fell to $1.69 per share on December 3, 2024 before falling further to $1.38 per share on December 4, 2024 and $1.29 per share on December 5, 2024.

8. This action seeks to recover the losses investors sustained as a result of Defendants' violations of the federal securities laws.

JURISDICTION AND VENUE

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

10. 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).

11. 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.

12. Venue is proper in this District pursuant to §27 of the Exchange Act and 28 U.S.C. §1391(b), as Defendant Applied Therapeutics 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.

13. 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

14. Plaintiff purchased Applied Therapeutics 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 Applied Therapeutics is attached hereto.

15. Applied Therapeutics, Inc. is Delaware corporation with its principal executive offices located at 545 Fifth Avenue, Suite 1400, New York, New York 10017. During the Class Period, the Company's common stock traded on the NASDAQ Stock Market (the "NASDAQ") under the symbol "APLT."

16. Defendant Shoshana Shendelman ("Shendelman") is the Founder of Applied Therapeutics and was, at all relevant times, the Chief Executive Officer, President, Secretary, and Chair of the Board of Directors of the Company.

17. Defendant Riccardo Perfetti ("Perfetti") was, at all relevant times, the Chief Medical Officer of Applied Therapeutics.

18. Defendants Shendelman and Perfetti are sometimes referred to herein as the "Individual Defendants." Applied Therapeutics together with the Individual Defendants are referred to herein as the "Defendants."

19. The Individual Defendants, because of their positions with the Company, possessed the power and authority to control the contents of Applied Therapeutics' reports to the SEC, press releases, and presentations to securities analysts, money and portfolio managers, and institutional investors, *i.e.*, the market. Each 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 their positions and access to material non-public information available to them, each of these Individual Defendants 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 Defendants are liable for the

false statements pleaded herein, as those statements were each "group-published" information, the result of the collective actions of the Individual Defendants.

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

21. The scienter of the Individual Defendants, and other employees and agents of the Company are similarly imputed to Applied Therapeutics under respondeat superior and agency principles.

SUBSTANTIVE ALLEGATIONS

Company Background

22. Applied Therapeutics is a clinical-stage biopharmaceutical company committed to the development of novel drug candidates against validated molecular targets in rare diseases.

23. The Company's lead drug candidate, govorestat, is a central nervous system penetrant Aldose Reductase Inhibitor (ARI) for the treatment of CNS rare metabolic diseases, including Galactosemia, SORD Deficiency, and PMM2-CDG.

The Defendants Materially Misled Investors Concerning the Viability of Applied Therapeutics' Govorestat

January 3, 2024

24. On January 3, 2024, Defendants issued a press release announcing that the Applied Therapeutics submitted a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) for govorestat (AT-007) for the treatment of Classic Galactosemia. The NDA was submitted in December 2023. In addition, the Company submitted a Marketing Authorization

Application (MAA) to the European Medicines Agency (EMA) in the fourth quarter of 2023, which was subsequently validated and accepted for review in December 2023. Additionally, the press release stated that the NDA and MAA submission packages included clinical outcomes data from the Phase 3 registrational ACTION-Galactosemia Kids study in children age 2-17 with Galactosemia, the Phase 1/2 ACTION-Galactosemia study in adult patients with Galactosemia, and preclinical data. The FDA has a 60-day filing review period to determine whether the NDA is complete and accepted for review. Applied Therapeutics claimed that the MAA was validated and would move to review by the EMA's Committee for Medicinal Products for Human Use (CHMP).

25. Founder and CEO, Shoshana Shendelman went on to detail the submissions of both the NDA and MAA, in pertinent part:

> The submissions of both the NDA and MAA for govorestat are supported by rapid and sustained reduction in galactitol, which resulted in a meaningful benefit on clinical outcomes across pediatric patients, alongside a favorable safety profile. We look forward to working closely with both regulatory agencies throughout the review process and hope to bring the first treatment to patients with Galactosemia soon.

February 15, 2024

26. On February 15, 2024, the Company held a Special Call to detail the interim results from the Phase III INSPIRE trial. Defendant Shendelman stated, in relevant part:

> Govorestat or AT-007 is a central nervous system penetrant aldose reductase inhibitor, which blocks the conversion of glucose to sorbitol and has previously been shown to reduce sorbitol levels in patients with SORD deficiency. SORD deficiency affects approximately 1 in every 100,000 people, which represents a U.S. patient population of approximately 3,300 and an EU population of approximately 4,000 individuals living with SORD deficiency.
>
> The INSPIRE trial is a Phase III double-blind placebo-controlled registrational study evaluating the effect of once-daily oral Govorestat or AT-007 in 56 patients aged 16 to 55 with SORD deficiency in the U.S. and Europe.

The INSPIRE study is a 24-month study. And the primary endpoint at 24 months is designated as the 10-meter walk run test, a component of the CMT-FOM or CMT functional outcome measures, lower limb domain.

A prespecified interim analysis at 12 months to evaluate early indicators of Govorestat treatment effect in order to inform future regulatory discussions and support a potential new drug application or NDA submission due to the urgent need for treatment in absence of any other options for patients with SORD deficiency.

The 12-month interim analysis was comprised of a clinical efficacy primary endpoint based on correlation of sorbitol with the composite clinical outcome measure from the CMT-FOM and a biomarker or PD primary endpoint based on sorbitol reduction. ***Both primary endpoints for the interim 12-month analysis were met.***

Regarding sorbitol reduction, Govorestat treatment demonstrated a statistically significant and sustained reduction in sorbitol level in patients over 12 months of treatment compared to placebo with a p-value of less than 0.001.

Regarding the correlation of sorbitol level with the CMT-FOM composite, statistical significance was achieved with a p-value of 0.05. The prespecified CMT-FOM composite included the 10-meter walk run, four stair climb, sit-to-stand test, 6-minute walk and dorsiflexion.

The analysis was prespecified in this way to demonstrate that sorbitol changes are mechanistically driving a treatment effect and to further substantiate that sorbitol is a surrogate endpoint reasonably likely to predict clinical benefit.

Perhaps most importantly, Govorestat treatment resulted in a highly statistically significant effect with a p-value of 0.01 on the CMT Health Index, or CMT-HI. Aspects of the CMT-HI that demonstrated a treatment effect included lower limb function, mobility, fatigue, pain, sensory function and upper limb function. These effects are also in line with feedback we had received previously from patients who participated in the SORD open-label pilot study and noted that they generally felt better and their overall levels of functional ability, fatigue and pain were improved.

In summary, we believe the results of this 12-month interim analysis confirmed the role of sorbitol as a key driver of disease severity and progression over time in SORD deficiency. ***We believe that Govorestat has demonstrated consistent effects on sorbitol as well as correlation of sorbitol with clinical outcome measures and clinical benefit on how patients feel and function based on CMT-HI effects.***

(Emphasis added).

27. During the same Special Call, Defendant Perfetti detailed, in pertinent part:

> Mean sorbitol level at baseline was approximately 3000-nanogram milliliter. This baseline characteristics were all well balanced between the active and the placebo. ***With regards to safety and tolerability, Govorestat was safe and well tolerated.*** There were five discontinuations in the study to 12 months following the active group and one in the placebo group.
>
> Adverse events were generally mild to moderate and were balanced between active and placebo groups. There was one serious adverse event reported, which was not related to the study drug. It was a motorcycle accident, and there were no deaths. ***We believe that based on the Govorestat risk benefit profile and the absence of any other treatment option for patients with SORD deficiency it's important to make this treatment available to patients as quickly as possible.***
>
> ***We plan to discuss the potential NDA submission for approval based on the data to date.***

(Emphasis added).

28. During a question-and-answer segment of the February 15, 2024 Special Call, Defendant Shendelman fielded questions from analysts, in relevant part:

> <Q: Yigal Dov Nochomovitz - Citigroup Inc.– Analyst> Okay. Got it. And then going back to Brian's question regarding trend versus placebo, you mentioned you're seeing some trends on the primary endpoint 10-minute walk. And we talked a lot about that design of that 10-minute walk run setup and how it's done in the hospital and everything needs to go in to make sure that, that's done in an effective way.
>
> Is there anything that you're seeing in what you've observed so far that would suggest you need to provide additional training or refine the instructions to the patients with regard to how to conduct that test or how the clinicians that are collecting the data need to behave or modify anything to move closer to deepening that trend so that you can hit on the primary of the 10-minute walk run test.
>
> <A: Defendant Shendelman> Yes. That's a great question, Yigal. ***As we've discussed previously, we took really extensive steps. We were really critically focused on that endpoint and how it's performed and training. And we actually videotaped all of the performance of the 10-meter walk run test and had master trainers, one of whom was trained by Dr. Shy, another one from University of Rochester, reviewing those videos in real time and making sure that the tests were performed properly and that we felt good about the quality of the data.***

And so I think that what we're seeing at 12 months is that those extra quality control steps that we put into place were very important and have really helped to keep us on track. So I think we feel good about the endpoint.

I think one of the things I had wondered about more so than some of these metrics like 10-meter walk run, what was actually the patient-reported outcome measure, so CMT-HI, we know is a very important measure for physicians on severity of these patients, and we know it's also important to the FDA on measuring how patients feel and their overall well-being.

Prior to this data, I had actually been a little bit skeptical about showing effects on the CMT-HI because it's a patient-reported outcome measure and sometimes those are subjective and it's sometimes difficult to translate the actual functional metrics into patient well-being.

So I think that was probably most surprising to us in a really positive way that what we're measuring on 10-meter walk run and 6-minute walk and dorsiflexion are actually translating to patients feeling that their mobility has improved and that they have a better quality of life overall.

They're less tired. They feel less pain. And so I think that we're in great shape on the functional metrics. I think we're happily surprised about the patient reported outcome and seeing the translation of those functional metrics into overall patient well-being.

But your question is really well taken. ***I think we did institute really aggressive measures on these functional metrics in the trial. And I think we just have to really remain diligent with those from now until the end of the study***

(Emphasis added).

29. Also on February 15, 2024, Applied Therapeutics published a press release detailing the positive interim 12-month results from the ongoing Phase III INSPIRE trial, in relevant part:

[T]he primary endpoints and several key secondary endpoints were achieved. The INSPIRE trial is a Phase 3 double-blind placebo-controlled registrational study evaluating the effect of once-daily (QD) oral govorestat (AT-007) in 56 patients aged 16-55 with SORD Deficiency in the US and Europe.

…

The objective of this pre-specified, 12-month interim analysis was to evaluate early indicators of govorestat treatment effect in order to inform future regulatory discussions and support a potential New Drug Application (NDA) submission, due to the urgent need for treatment and absence of any other options for patients with SORD Deficiency. The 12-month interim analysis was comprised of a clinical efficacy primary endpoint based on correlation of sorbitol with composite clinical outcome measures, and a pharmacodynamic (PD) biomarker primary endpoint based on sorbitol reduction.

Interim Analysis Results:

- Demonstrated statistically significant correlation between sorbitol level and the prespecified CMT-FOM composite clinical endpoint (10-meter walk-run test, 4 stair climb, sit to stand test, 6-minute walk test and dorsiflexion) ($p=0.05$).

- Govorestat treatment provided sustained reduction in sorbitol level in patients with SORD Deficiency over 12 months of treatment, which was statistically significant compared to placebo ($p<0.001$).

- Govorestat treatment also resulted in a highly statistically significant effect ($p=0.01$) on the CMT Health Index (CMT-HI), an important patient-reported outcome measure of disease severity and well-being, which was a secondary endpoint in the study. Aspects of the CMT-HI that demonstrated a treatment effect included lower limb function, mobility, fatigue, pain, sensory function, and upper limb function.

- Govorestat was safe and well tolerated, with similar incidence of adverse events between active and placebo-treated groups.

We believe the results from the 12-month interim analysis confirm the role of sorbitol as a key driver of disease severity and progression over time. Clinical outcomes of the ongoing INSPIRE trial are expected to be assessed again at 24 months, where the 10-meter walk run test serves as the primary clinical efficacy endpoint. The Company plans to discuss a potential NDA submission with the U.S. Food and Drug Administration (FDA) based on the clinical data to date.

May 9, 2024

30. On May 9, 2024, Applied Therapeutics reported its First Quarter 2024 Financial Results, in relevant part:

> Govorestat NDA Under Priority Review by US FDA for Treatment of Classic Galactosemia, PDUFA Target Action Date of November 28, 2024; MAA under CHMP Review by EMA. ***In March 2024, the Company announced that the U.S. Food and Drug Administration (FDA) has extended the review period for the New Drug Application (NDA) for govorestat (AT-007) for the treatment of Classic Galactosemia to allow more time to review supplemental analyses of previously submitted data that had been provided by Applied in response to the FDA's routine information requests. No additional data or studies have been requested by the FDA at this time. The new PDUFA action date is November 28, 2024. The NDA was granted Priority Review Status, and the FDA also noted that it plans to hold an advisory committee meeting to discuss the application.*** Govorestat was previously granted Pediatric Rare Disease designation and will qualify for a Priority Review Voucher (PRV) upon approval. The Company has also submitted a Marketing Authorization Application (MAA) for govorestat for the treatment of Classic Galactosemia to the European Medicines Agency (EMA), which was validated in December 2023 and is under review by the EMA's Committee for Medicinal Products for Human Use (CHMP). In April 2024, the EMA granted a 3-month extension to the Day 120 clock stop period to allow sufficient time for responses to the CHMP's Day 120 list of questions. As a result, the Company now expects a decision by the EMA in early first quarter of 2025. The NDA and MAA submission packages include clinical outcomes data from the Phase 3 registrational ACTION-Galactosemia Kids study in children aged 2-17 with Galactosemia, the Phase 1/2 ACTION-Galactosemia study in adult patients with Galactosemia, and preclinical data.

(Emphasis added).

31. Defendant Shendelman provided color on the Company's progress related to govorestat, in pertinent part:

> Preparations are underway for the potential approval and commercial launch of govorestat for the treatment of Classic Galactosemia in the US and EU, following the significant regulatory progress we have already made in 2024. We are also discussing a potential NDA submission for SORD Deficiency with the Neurology Division at FDA, further advancing our objective of bringing first ever treatment to patients with rare diseases.

August 7, 2024

32. On August 7, 2024, Applied Therapeutics reported its Second Quarter 2024 Financial Results, in relevant part:

> Govorestat PDUFA Target Action Date of November 28, 2024; MAA under CHMP Review by EMA; Updated Cognition Data Included in Review. ***In the process of preparing for the United States Food and Drug Administration (FDA)***

inspection, it was discovered that the vendor hired to compile NIH Toolbox data for the Company used an adult formula for calculation of about one third of composite cognition and motor skills scores. Adjusting the formula to the pediatric formula resulted in significantly improved data for cognition as compared to the prior data, demonstrating improvement in the govorestat (AT-007) treated group of approximately 8 points on a standard scale, which was statistically significant compared to placebo (p=0.032). This also resulted in a statistically significant effect on the primary endpoint sensitivity analysis which included cognition (p=0.034). The motor skills data did not change substantially. These updates were disclosed and discussed with the FDA and European Medicines Agency (EMA) and will be used in the ongoing evaluation of the New Drug Application (NDA) and Marketing Authorization Application (MAA). As previously announced, the FDA Prescription Drug User Fee Act (PDUFA) target action date is November 28, 2024. Govorestat was previously granted Pediatric Rare Disease designation and will qualify for a Priority Review Voucher (PRV) upon approval. The Company has also submitted a MAA for govorestat for the treatment of Classic Galactosemia to the EMA, which was validated in December 2023 and is under review by the EMA's Committee for Medicinal Products for Human Use (CHMP). As previously announced, in April 2024, the EMA granted a 3-month extension to the Day 120 clock stop period to allow sufficient time for responses to the CHMP's Day 120 list of questions. The Company expects a decision by the EMA early in the first quarter of 2025. The NDA and MAA submission packages are supported by rapid and sustained reduction in galactitol, which resulted in a meaningful benefit on clinical outcomes across pediatric patients, alongside a favorable safety profile. The submission packages include clinical outcomes data from the Phase 3 registrational ACTION-Galactosemia Kids study in children aged 2-17 with Galactosemia, the Phase 1/2 ACTION-Galactosemia study in adult patients with Galactosemia, and preclinical data. If approved, govorestat would be the first medication indicated for the treatment of Galactosemia and would be Applied Therapeutics' first commercial product.

FDA Advisory Committee Meeting to Review Govorestat NDA for the Treatment of Classic Galactosemia Tentatively Scheduled for October 9, 2024. The FDA notified the Company of their tentative plans to convene the Genetic Metabolic Diseases Advisory Committee (GeMDAC) on October 9, 2024, to discuss the Company's NDA for govorestat for the treatment of Classic Galactosemia. The date is tentative and has not yet been confirmed in the federal register. The newly formed GeMDAC will consist of experts in the fields of medical genetics, inborn errors of metabolism, epidemiology, and other related specialties.

Company Aligned with the Neurology I Division of the FDA on Potential Submission of an NDA for Govorestat for the Treatment of SORD Deficiency Under Accelerated Approval. ***In July 2024, the Company held a Type C meeting with the FDA to align on the regulatory path forward for govorestat for the treatment of SORD Deficiency. The Neurology I Division confirmed that the data***

generated to-date was appropriate for a potential NDA submission under the FDA's Accelerated Approval Program, and discussed the design of a new confirmatory study to be completed as a post-marketing requirement. The Company plans to hold a pre-NDA meeting to discuss administrative aspects of the submission in the second half of this year, and expects to submit an NDA early in the first quarter of 2025. If govorestat is approved for the treatment of Classic Galactosemia, the regulatory submission for the treatment of SORD will be submitted as a supplementary New Drug Application (sNDA). Patients in the INSPIRE study will be offered open-label govorestat treatment and will be followed for additional safety data generation. The review and potential approval of govorestat for SORD is independent of the ongoing review of govorestat for Classic Galactosemia.

(Emphasis added).

33. Defendant Shendelman provided color on the Company's progress related to govorestat, in pertinent part:

> Momentum continues with our steady regulatory progress in Classic Galactosemia and SORD Deficiency. We are incredibly pleased to share our alignment with the Neurology Division of the FDA regarding a potential second NDA submission for govorestat for the treatment of SORD Deficiency. Both Galactosemia and SORD Deficiency are rare neurological diseases with no currently approved treatment options. At Applied, we are dedicated to creating transformative treatments for rare diseases, and we continue to work closely with regulatory agencies and patient advocacy groups to ensure that treatments become available for patients with these debilitating diseases.

November 7, 2024

34. On November 7, 2024, Applied Therapeutics reported its Third Quarter 2024 Financial Results, in relevant part:

> NDA Submission Under Accelerated Approval for Govorestat for the Treatment of SORD Deficiency Anticipated in Early Q1 2025. Following a Type C meeting with the Neurology I Division of the FDA to align on the regulatory path forward for govorestat for the treatment of SORD Deficiency, the Company expects to submit an NDA early in the first quarter of 2025. The review and potential approval of govorestat for the treatment of SORD is independent of the ongoing review of govorestat for Classic Galactosemia. If govorestat is approved for the treatment of Classic Galactosemia, the regulatory submission for the treatment of SORD will be submitted as a supplementary New Drug Application (sNDA). Patients in the Phase 3 INSPIRE study have been transitioned to open-label govorestat treatment and will be followed for additional safety data generation.

> Highlighted Clinical Data and Development Characterization of Govorestat for the Treatment of Classic Galactosemia at Medical Conferences. In the third and fourth quarters of 2024, the Company presented at the 2024 Annual Symposium of the Society for the Study of Inborn Errors of Metabolism (SSIEM) and the American Society of Human Genetics (ASHG) Annual Meeting 2024. The presentations highlighted the mechanism of disease pathogenesis for Classic Galactosemia, the design of the first clinical outcomes study in Classic Galactosemia and the results of the ACTION-Galactosemia Kids study.

35. Defendant Shendelman provided color on the Company's progress related to govorestat, in pertinent part:

> We are proud of the significant progress we've made this quarter as we prepare for a transformational year ahead, with a focus on transitioning from a clinical-stage company to a commercial organization. With regulatory submissions for govorestat underway in two rare disease indications of urgent unmet need, Classic Galactosemia and SORD Deficiency, we continue to thoughtfully execute our pre-launch initiatives. ***As we approach the final stages of the NDA review process for Classic Galactosemia in parallel with a near-term NDA submission for SORD Deficiency, we remain confident in the promise of govorestat and its ability to address the underlying mechanisms of both diseases. We look forward to the opportunity to bring govorestat to patients in 2025.***

(Emphasis added).

November 12, 2024

36. On November 12, 2024, Applied Therapeutics presented at the UBS Healthcare Conference providing further insight into govorestat and the Company's progress in testing the drug. In pertinent part:

> In our clinical studies in both children and adults, we've shown that Govorestat treatment quickly and effectively reduces galactitol levels in the blood. In adults with galactosemia, we also went on to show that, that galactitol reduction in the blood reflected galactitol reduction in the brain.
>
> And in pediatric patients with galactosemia, we showed that, that galactitol reduction resulted in a positive effect on the symptoms that caused the neurological complications, things like behavior, cognition, adaptive skills and tremor and Govorestat has been safe and well tolerated. We have more than three years of continuous use in patients with galactosemia.

…

And in the Govorestat-treated group, you saw either stabilization of disease as we're showing here on Behavioral Symptoms Index and withdrawal or you saw an actual improvement versus their baseline as we saw on things like social skills and cognition. So Govorestat is either stabilizing the disease or improving it in some cases, while in the absence of treatment in the placebo group, these patients declined.

We have a very substantial safety profile of Govorestat, both in healthy volunteers and classic galactosemia patients and we'll talk in a few minutes about the SORD Deficiency program, which is producing even more safety exposure data. But Govorestat has been very safe and well tolerated. It's an oral once-daily suspension. So it's a liquid suspension that's easily taken by both children and adults. The burden of taking the drug is very low. It's easy to be adherent and persistent on treatment and the safety profile was extremely well tolerated.

You can see here that many of the patients that were on active treatment in the clinical trial have continued on in the expanded access program or compassionate use program and now have been on Govorestat for more than 3 years. The patients who are on placebo in our clinical trials crossed over to open-label extension of Govorestat and has now been on treatment for about 18 months.

…

And I think these programs have suited us well. Our market research has shown that 89% of parents and caregivers would request Govorestat once approved. And 80% of physicians are aware of Govorestat, mostly medical geneticists, but high awareness also amongst general HCPs.

And when we ask those prescribers, whether they would prescribe Govorestat, 56% said that they anticipate prescribing Govorestat in the first year and -- sorry, in the first 6 months and 90% within the first year. And 83% of payers recognize the high unmet medical need of Govorestat, which is important with a rare disease and achieving favorable pricing.

…

This study has now been converted to open-label extension from double blind, so there's no longer a placebo group here. Everybody has been transitioned over to Govorestat treatment, and we're continuing to collect long-term safety data. Again, in patients with SORD Deficiency, Govorestat was safe and well tolerated. And we haven't seen anything here in any of these patient populations, healthy volunteers, classic galactosemia or SORD Deficiency that's concerning. In both galactosemia

> and SORD Deficiency, we've been very fortunate to have very strong and involved patient advocacy groups.

37. The above statements in Paragraphs 24 to 36 were false and/or materially misleading by concealing and misrepresenting the clinical trial protocols and procedures in place thereby providing investors with the false impression that protocol and good clinical practices were being properly followed. In truth, Applied Therapeutics was not adhering to trial protocol and good clinical practices which, in turn, created an exceedingly severe risk that the trial data would be rejected by the FDA in the context of an NDA.

Applied Therapeutics' Reveals that the FDA Issued

A Complete Response Letter for the NDA for Govorestat

November 27, 2024

38. On November 27, 2024, Defendants issued a press release revealing that the FDA issued a CRL for the NDA for govorestat. The press release continued, detailing the following:

> The CRL indicates that the FDA completed its review of the application and determined that it is unable to approve the NDA in its current form, citing deficiencies in the clinical application.
>
> The Company is reviewing the feedback from the FDA and plans to immediately request a meeting to discuss requirements for a potential resubmission of the NDA or appeal of the decision along with appropriate next steps.

39. Investors and analysts reacted immediately to Applied Therapeutics' revelation. The price of Applied Therapeutics' common stock declined dramatically. From a closing market price of $10.21 per share on November 26, 2024, Applied Therapeutics' stock price fell to $8.57 per share on November 27, 2024 before falling further to $2.03 on November 29, 2024 and $1.75 per share on December 2, 2024, a total decline of more than 80%.

December 2, 2024

40. On December 2, 2024, Applied Therapeutics published a Regulation FD Disclosure disclosing that the Company received a warning from the FDA, in pertinent part:

> In the normal course of Applied Therapeutics, Inc.'s (the "Company") New Drug Application ("NDA") review for govorestat, the U.S. Food and Drug Administration ("FDA") performed an inspection relating to the AT-007-1002 study. The Company responded to the FDA's inspectional observations and believed it addressed any outstanding questions or issues. Following issuance of a Complete Response Letter ("CRL"), the Company received a warning letter limited to the AT-007-1002 study. The letter identified issues related to electronic data capture, which the Company believes were addressed in prior communications with the agency, including by providing detailed paper and video records. The letter also refers to a dosing error in the dose-escalation phase of the study resulting in slightly lower levels than targeted in a limited number of patients, which was remedied prior to achieving maintenance dosing. Detailed records were maintained by the Company under FDA regulatory requirements, and this information was provided to FDA. The Company intends to respond within the permitted 15 business days to address these issues.

41. Applied Therapeutics' disclosure of the "warning letter" prompted a further decline in the stock price as investors discovered the seriousness and severity of the Company's clinical trial errors. From a closing market price of $1.75 per share on December 2, 2024, Applied Therapeutics' stock price fell to $1.69 per share on December 3, 2024 before falling further to $1.38 per share on December 4, 2024 and $1.29 per share on December 5, 2024.

42. A number of well-known analysts who had been following Applied Therapeutics lowered their price targets in response to Applied Therapeutics' disclosures. For example, CITI, while removing their upside 90-day catalyst watch estimated "non-approval likelihood for govorestat in galactosemia." The analyst continued, in relevant part, that govorestat non-approval likelihood is based on:

> 1) a cancelled AdCom, 2) totality of the efficacy signal with clean safety, 3) no approved therapies in a rare disease creating a low bar, 4) an unambiguous MoA hitting the key disease-driving metabolite, and 5) indications of very constructive dialogue with DRDMG and Division Director Catherine Pilgrim-Grayson.

> Nonetheless, it appears despite these positives FDA could not get past the missed primary given full approval was at stake. Given the news, we are lowering our PoS on galactosemia to 50% (i.e. a coin toss seems realistic now), taking our target down to $8 from $13. Furthermore, We spoke with mgmt. and the FDA letter received this afternoon was vague on enumerating the "deficiencies in the clinical application". Mgmt's read is the deficiencies are efficacy-driven, as neither non-clinical, safety nor CMC were notable themes in their FDA dialogue. Curiously, we now know mgmt was in labelling discussions until very recently (past several weeks) which ordinarily would suggest an approval was being formulated, so the Division Director could have shifted sentiment in the waning days of the review.

43. Similarly, RBC, while considerably reducing their price target from $12 to $4, cautioned:

> The CRL for govorestat in galactosemia is disappointing, and we believe creates significant uncertainties around a future path forward for the drug in that indication. We still see meaningful residual value from SORD deficiency-- a potentially larger indication to be reviewed by a potentially more flexible FDA division-- where NDA submission is expected 1Q25, though there remain uncertainties as to whether APLT can assemble a convincing enough data package, and this will take time to play out. With opportunities and risks more balanced, we see shares trading in-line [from] here near-term.

44. Analogously, UBS downgraded APLT to N, citing "uncertainties" surrounding the regulatory path forward for govorestat.

45. The fact that these analysts, and others, discussed Applied Therapeutics' shortfall and the uncertainties around the future of its highly touted drug, govorestat, suggests the public placed significant weight on Applied Therapeutics' prior statements and interim drug trial results. The frequent, in-depth discussion of Applied Therapeutics' Phase III INSPIRE trial progress and interim results confirms that Defendants' statements during the Class Period were material.

Loss Causation and Economic Loss

46. During the Class Period, as detailed herein, 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 Applied Therapeutics' common stock and operated as a fraud or

deceit on Class Period purchasers of Applied Therapeutics' common stock by materially misleading the investing public. Later, Defendants' prior misrepresentations and fraudulent conduct became apparent to the market, the price of Applied Therapeutics' common stock materially declined, as the prior artificial inflation came out of the price over time. As a result of their purchases of Applied Therapeutics' common stock during the Class Period, Plaintiff and other members of the Class suffered economic loss, *i.e.*, damages under federal securities laws.

Presumption of Reliance; Fraud-On-The-Market

47. At all relevant times, the market for Applied Therapeutics' common stock was an efficient market for the following reasons, among others:

(a) Applied Therapeutics' 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) Applied Therapeutics 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) Applied Therapeutics 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 Applied Therapeutics was reflected in and incorporated into the Company's stock price during the Class Period.

48. As a result of the foregoing, the market for Applied Therapeutics' common stock promptly digested current information regarding the Company from all publicly available sources and reflected such information in Applied Therapeutics' stock price. Under these circumstances, all purchasers of Applied Therapeutics' common stock during the Class Period suffered similar injury through their purchase of Applied Therapeutics' common stock at artificially inflated prices, and a presumption of reliance applies.

49. 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.

No Safe Harbor; Inapplicability of Bespeaks Caution Doctrine

50. 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 material information concerning the Company's ongoing clinical trials and historical regulatory submissions. These statements were not forward-looking and/or omitted material information about existing events and circumstances.

51. 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.

52. 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 Applied Therapeutics 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

53. 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 Applied Therapeutics' 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.

54. The members of the Class are so numerous that joinder of all members is impracticable. Throughout the Class Period, Applied Therapeutics' 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 Applied Therapeutics 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 November 6, 2024, there were 116.36 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.

55. 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.

56. 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.

57. 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 Applied Therapeutics;

(c) whether the Individual Defendants caused Applied Therapeutics 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 Applied Therapeutics' 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.

58. 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

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

60. 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.

61. 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 Applied Therapeutics common stock; and (iii) cause Plaintiff and other members of the Class to purchase or otherwise acquire Applied Therapeutics' 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.

62. 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 Applied Therapeutics' 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.

63. 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.

64. Information showing that Defendants acted knowingly or with reckless disregard for the truth is peculiarly within defendants' knowledge and control. As the senior managers and/or directors of the Company, the Individual Defendants had knowledge of the details of Applied Therapeutics' internal affairs.

65. The Individual Defendants are liable both directly and indirectly for the wrongs complained of herein. Because of their positions of control and authority, the Individual Defendants were able to and did, directly or indirectly, control the content of the statements of the Company. As officers and/or directors of a publicly-held company, the Individual Defendants had a duty to disseminate timely, accurate, and truthful information with respect to Applied Therapeutics' 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 Applied Therapeutics' 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 Applied Therapeutics' 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.

66. During the Class Period, Applied Therapeutics' 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 Applied Therapeutics' 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 Applied Therapeutics' common stock was substantially lower than the prices paid by Plaintiff and the other members of the Class. The market price of Applied Therapeutics' common stock declined sharply upon public disclosure of the facts alleged herein to the injury of Plaintiff and Class members.

67. 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.

68. 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

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

70. During the Class Period, the Individual Defendants 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 their senior positions, they knew the adverse non-public information about Applied Therapeutics' misstatements.

71. As officers and/or directors of a publicly owned company, the Individual Defendants had a duty to disseminate accurate and truthful information, and to correct promptly any public statements issued by Applied Therapeutics which had become materially false or misleading.

72. Because of their positions of control and authority as senior officers, the Individual Defendants were able to, and did, control the contents of the various reports, press releases and public filings which Applied Therapeutics disseminated in the marketplace during the Class Period concerning the misrepresentations. Throughout the Class Period, the Individual Defendants exercised their power and authority to cause Applied Therapeutics to engage in the wrongful acts complained of herein. The Individual Defendants therefore, were "controlling persons" of the Company within the meaning of Section 20(a) of the Exchange Act. In this capacity, they participated in the unlawful conduct alleged which artificially inflated the market price of Applied Therapeutics' common stock.

73. Each of the Individual Defendants, therefore, acted as a controlling person of the Company. By reason of their senior management positions and/or being directors of the Company, each of the Individual Defendants had the power to direct the actions of, and exercised the same to cause Applied Therapeutics to engage in the unlawful acts and conduct complained of herein. Each of the Individual Defendants 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.

74. By reason of the above conduct, the Individual Defendants and/or Applied Therapeutics 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: