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Unicycive: Bringing Innovation to Improve Quality of Life for Patients Suffering from Kidney Diseases

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CEOCFO: ***Dr. Gupta, what led you to Unicycive Therapeutics, Inc? Why did you go from a practicing physician to working on these exciting developments?***
Dr. Gupta: I am trained in Internal Medicine (Internship), Physical Medicine and Rehabilitation (Residency) and Cardiac Rehabilitation (Fellowship). I did my residency and clinical training in a fellowship in New York City. After my fellowship training, I was taking care of patients with cardiac problems in the acute in-patient setting at NYU Hospital, where I also had a faculty appointment with attending physician privileges. Physicians do what I am doing today, in the way they take care of patients to help them to get better. I found that if I could get involved in the innovation aspect of healthcare, I could help bring new ideas and new technologies to more patients. It would give me the opportunity to impact -- instead of one patient at a time -- perhaps thousands and millions of patients by bringing new products to the market. That is my inherent desire: to bring new medicines and technologies to market, so that patients, physicians and society as a whole can benefit.

CEOCFO: ***What are some of the challenges in treating kidney disease? Why does that seem to be harder than some of the other problems that people have today?***
Dr. Gupta: Kidney diseases are an outcome or manifestation of many other chronic medical problems, including diabetes, coronary artery

diseases, and hypertension (or high blood pressure), to name a few. All of these chronic medical conditions are continuing to increase in terms of prevalence throughout our society and they all lead to kidney damage. Once the kidneys start to malfunction, they do not get better on their own. There are some organs in our bodies that have regenerative capabilities. Kidneys do not, and patients end up having progressively deteriorating kidney function.

In the United States, there are currently close to 32 million patients, or nearly 15% of the population, with chronic kidney disease. Within that, almost half a million patients per year have Stage 5 chronic kidney disease or CKD, which requires dialysis. Patients who are on dialysis, which is the only solution available for these late-stage CKD patients, do not get better. For those who do not stabilize or those whose CKD gets worse, the only solution is organ transplant. We believe there is a huge unmet medical need for these patients, and we believe that if there is anything we can do to ease or alleviate deterioration of kidney function, or help people who are already on dialysis, it should be done.

CEOCFO: ***Would you please tell us a little bit about Renazorb, but before that, could you explain what hyperphosphatemia is, related to chronic kidney disease, so we understand the problem?***

Dr. Gupta: Having a high level of phosphate in your blood is known as hyperphosphatemia. Phosphate is an electrolyte, which is an electrically charged substance that contains the mineral, phosphorus. Your body needs some phosphate to strengthen your bones and teeth, produce energy, and build cell membranes. Yet in larger-than-normal amounts, phosphate can cause bone and muscle problems and increase your risk for heart attacks and strokes. Hyperphosphatemia is common in patients with kidney disease, particularly those with chronic kidney disease. This is because the kidneys act as a filter for our blood. When the kidneys are damaged or diseased, they no longer perform this task well. As I mentioned, when patients deteriorate to Stage 5 CKD, they need to go on dialysis, which is a process whereby the patients' blood is filtered outside of the body to remove the toxins the kidney ordinarily does. The problem is that any type of dialysis, whether it is hemodialysis or peritoneal dialysis, does not purify and remove phosphates from the body. This leaves patients with high phosphate levels or hyperphosphatemia in need of a medical treatment, on top of the dialysis.

Phosphate is something that most people do not think too much about, but it is one of those silent killers, like high blood pressure, that doesn't kill you overnight but over time creates serious and dangerous conditions that can be fatal if not addressed. High phosphate is a precursor, or a very significant contributor, to patients dying from heart conditions. Let me explain to you why. Phosphate combines with calcium in the body and causes two major problems. First, it starts to deposit calcium phosphate to the coronary arteries, which causes the buildup of plaques. This leads to an increased risk of heart attacks, which in turn leads to increased mortality and morbidity, which results in increased hospitalizations and deaths. This has been studied and validated over decades. To put this in perspective, one milligram per decimeter increase

in phosphate in the serum can increase the risk of hospitalization by up to 10%, and if you have almost twice the level of phosphate than what you should have in the serum, that will increase the mortality risk by almost two-fold. The second problem excess phosphates in the serum or hyperphosphatemia causes relates to the bones. Calcium and phosphates are components of bones. When these are out of balance, and if there is high phosphate, it causes more fractures and other types of bone dysfunction.

CEOCFO: ***What does Renazorb do? What have you developed?***
Dr. Gupta: Renazorb is a novel phosphate lowering drug, that utilizes nanoparticle technology, which allows us to make smaller pills that can bind the phosphate in the body and take it out in the stool. Renazorb is based on a proprietary compound that was originally developed as lanthanum dioxycarbonate. It was initially developed by a company that was working on car batteries, and they were trying to figure out how to make car batteries smaller, by using nanoparticle technology. As you know, technology and innovation are cross disciplinary applications. In this case, the nanoparticle technology allows us to make the pills to be smaller. Lanthanum, the drug Renazorb is based on, is one of the most potent phosphate lowering drugs approved and on the market. We are combining a proven phosphate lowering agent, lanthanum, and then using nanoparticle technology to make the pills smaller and, therefore, easier to take and easier to remain compliant with the prescribed dosing. With Renazorb, we are able to provide patients a solution that allows them to take one pill with each meal -- one pill with breakfast, one pill with lunch, one with dinner--and be able to adequately control their phosphate.

There are currently other medications on the market, but many of them require patients to take 9 pills, 12 pills, or 15 pills per day. Some of these drugs require 15 pills per day, which means the patient is taking 5 pills with each meal. Other drugs may require a fewer number of pills, but they are giant pills in size, making them difficult to swallow. Another of these medications was based on an original lanthanum-based drug that required patients to chew the pills. These pills are based on heavy metals, so chewing them is not necessarily very pleasant, or even easy to do. I also want to add that these patients who are on dialysis and need phosphate lowering pills, may already be taking anywhere between 20 to 30 pills per day for other conditions related to their health. Imagine taking 20 to 30 pills per day! If you think about it, that is a lot of medicine, and these are not patients who are taking these pills for one day, one week or one month. They are on these regimens for the rest of their lives, so compliance becomes a big challenge. For patients who are on dialysis and who have hyperphosphatemia, almost 50% of their pill burden can be attributed to their phosphate lowering drugs. So you can see why this is a huge challenge.

Our drug, which uses nanoparticle technology, has been developed and tested in multiple animal models. Renazorb has been evaluated in Phase 1 clinical trials under U.S. Food and Drug Administration (FDA) guidance. Since the time Unicycive acquired the drug, we have held three FDA meetings and have been able to align with the Agency such that we only have to conduct one bioequivalence clinical trial to be able to file

Renazorb for full approval with the U.S. FDA. Unicycive initiated that bioequivalence study in June of 2022 and we expect to complete it in the fourth quarter of 2022, with plans to file a New Drug Application for FDA approval in 2023.

CEOCFO: ***You are in late-stage development. How will you be commercializing and will it be a global commercialization?***
Dr. Gupta: Absolutely! The company has global rights. The best possible way to describe our commercial strategy today is as following. Outside of the United States, we believe we will be best served by having a regional commercial partner that can afford to market a pharma product. It can be a biotechnology company, but someone who has a local presence in terms of their salesforce, in terms of expertise, and in terms of being able to influence or help patients get these drugs. That is the strategy we initially outlined in May of this year. Since then, we have already executed on our strategy.

We recently announced a partnership with Lee Pharma for the rights to develop and market Renazorb in China and Hong Kong. In addition to sales and marketing, Lee Pharma is taking on the regulatory filings for Renazorb approval in China. We are currently exploring a similar set of options for other Asian countries, and then also in Europe. Our intention is that by doing these partnerships, we bring Renazorb very quickly to market across the world, almost simultaneously. Number two, given that we are a small team, and a small company at the moment, it also helps us to be able to leverage other partners and their expertise. All of these partnerships bring additional, non-dilutive cash to the company, which strengthens our balance sheet. In addition, these partnerships bring third-party validation.

In the United States, we are working toward the following three possible scenarios for commercialization in parallel. The first two scenarios include a potential partnership with a biopharma company or with a dialysis company. There are a few large dialysis organizations, called LDOs, that manage a significant number of patients who are on dialysis. These LDOs manage the whole care of these patients, which makes them a natural fit for marketing Renazorb. There are also several biopharmaceutical companies that have a focus in nephrology drugs and these companies could also be a great partner for Renazorb. The third option is to engage a contract commercial salesforce in order to launch the product ourselves, upon Renazorb's approval.

CEOCFO: ***What is UNI-494, and what does that add to Unicycive?***
Dr. Gupta: UNI-494 is a novel drug that works on mitochondria. Mitochondria are the energy powerhouse of cells. For example, if the electrical power in your home is not working, none of the devices that use electricity in the house will work, whether it is your internet router, internet cable, or any of the iPad, iMac, or iPhone chargers. Just like electricity is important for a house, it is similarly important for the cells. For the cell, which is a very small microcosm of the body, energy is important. Mitochondria play a key role in energy metabolism and energy management. Inflammation is the genesis of many chronic diseases, not just for the kidney, but also for other organs including the

liver, heart, and even the brain. Many of these organs' disfunction or disease start with inflammation. In the inflammatory stage, these cells will have difficulty with their mitochondria, which means that they are having difficulty with their energy metabolism.

UNI-494 works, very basically, by blocking the pores in the mitochondria's outer membrane, and allowing them to become stable, or remain stable. In an inflammatory state, the pores of the mitochondria's outer membrane open up. When the pores open up, calcium can get inside the mitochondria, causing them to swell and die. UNI-494 stabilizes the mitochondria, and therefore has applications in many diseases. We initially focused UNI-494 in kidney diseases, such as Acute Kidney Injury, but we believe this drug could be developed for both acute, as well as chronic kidney diseases. UNI-494 is undergoing many pre-clinical animal studies, and we expect to file the regulatory application to start a Phase 1 clinical trial in healthy volunteers before the end of the year.

CEOCFO: ***Are the medical and investment communities aware of Unicycive, and for people in the communities that know, are they paying attention? Does it make sense? It is something that medical people, and again, the investment community, intuitively, can understand should be/is a really big breakthrough?***

Dr. Gupta: Absolutely, our two drug programs represent potentially significant medical breakthroughs. The question is, are people aware of it? Not as much as we would like them to be. We can improve our visibility several fold. Unicycive and the potential of our novel drug candidates are just beginning to be understood by the investment community and we are working to enhance our visibility to these audiences. Just as importantly, we are reaching out to the physician community and the scientific community. There are two or three different ways in which we can educate and excite these audiences. One is by generating and presenting new data. Toward that end, we are working to publish this data in a number of peer review journals and publications and to present these data in abstracts at key scientific and medical congresses. From the Company's inception, we have participated in many nephrology or kidney focused medical conferences and have had multiple publication abstracts presented in support of our novel drug candidates.

Number two, we have hosted Key Opinion Leader events where an expert in the field discusses the high unmet need in hyperphosphatemia, for example, and highlights how our novel approach to the problem can benefit patients. One such KOL event was hosted a few months ago, and is still on our website. We plan to do many more such events, so that more physicians, and also those in the investment community can understand the significant benefit our drugs can bring to patients suffering with kidney diseases. Finally, as a public company, we have been very active bringing the Unicycive story to the investment community through participation in a number of different investment conferences. These presentations are often live webcast and archived on our corporate website as well, so people have a good resource to learn more about who we are, what we do and how we do it better.

CEOCFO: ***What, if anything, might someone looking at Unicycive Therapeutic, Inc misunderstand, or not recognize the importance? What might be under the surface that people really should recognize?***

Dr. Gupta: I think there are 2 or 3 points that I would like to highlight that may not have been very obvious. Number one, Renazorb is a drug that has the potential to be on the market next year. We will be looking to meet with the FDA as soon as we finish our clinical trials at the end of this year to discuss our filing approval strategy. A second point is that I don't think the overall market opportunity for a drug like Renazorb is well understood. The reason I say this is that in the United States the hyperphosphatemia market is over 1.2 billion dollars. While there are other drugs that have been out there for some time for this condition, we know that they have numerous shortcomings and, therefore, patients are not compliant with their regimens. One of the main attractions for Renazorb is that it provides an ideal phosphate lowering agent that can be taken three times daily in a small pill size that can be swallowed (not chewed) and provides patients with a treatment they can take for the rest of their lives.

We also believe the broad opportunity for UNI-494 has gone under the radar, likely because it is a drug in early-stage development. As with many biotech companies, the earlier stage programs typically get discounted, and do not play a role in their overall valuation. I believe, as we advance UNI-494 into clinical programs by the end of this year, people will take notice and start to realize that it is a drug with significant potential to bring a potentially meaningful new treatment for patients suffering with acute or chronic kidney diseases, where there are currently not many options. Number three is that, as a company in the current economic and market conditions, we have executed very disciplined financial management. We have a small team and we focus on execution without spending a lot of money because we focus our resources on advancing our drugs. I am proud that we have a great, efficient organization.