Joe Payne

Thank you and good afternoon to all. Thank you for joining Arcturus' Q3 quarterly call. This recent period has been characterized by remarkable progress we've made both with our pipeline and also in completing transformational business development agreements with CSL and BARDA.

CSL

I'll begin with our **recently announced collaboration with CSL**. I want to first express my gratitude to the entire team here at Arcturus that worked tirelessly on this deal, and particularly the deal team lead by Lance Kurata, our chief legal officer, and Kevin Skol who leads our business development efforts – they all did an exceptional job. Indeed there is an extraordinary story behind every extraordinary deal – so thank you to the team, many of which are listening to the call.

This collaboration with CSL is designed to develop and commercialize self-amplifying mRNA vaccines targeting COVID-19, influenza, 3 additional pathogens, and pandemic preparedness. This broad strategic collaboration will drive the development, manufacture, and global commercialization of novel self-amplifying mRNA-based vaccines.

This was a transformative deal for Arcturus. Both from a financial perspective, as well as in positioning our company to become a leader in the development and delivery of mRNA vaccines and therapeutics. CSL Seqirus is one of the top 2 companies in the multiple billion-dollar influenza vaccine market and they bring profound capabilities, especially related to advanced vaccine manufacturing, development, distribution, and commercialization.

The collaboration combines CSL Seqirus' well established global vaccine commercial and manufacturing infrastructure with Arcturus' manufacturing expertise and innovative STARR™ self-amplifying mRNA vaccine and LUNAR® delivery platform technologies. Together, we will focus on the development of self-amplifying mRNA vaccines targeting COVID-19, influenza, 3 additional defined respiratory infectious disease vaccines, and pandemic preparedness and we look forward to providing continued updates on our plans and progress in the coming months. The agreement will become effective upon the expiration of the Hart-Scott Rodino waiting period.

Andy will provide further financial details about the collaboration, but I'll briefly mention some highlights. Arcturus will receive $200 million upfront, up to $4.3 billion in potential development and commercial milestones, 40% profit sharing for COVID-19 vaccines, and up to double digit royalties for influenza and three additional defined respiratory infectious disease vaccines. These are very meaningful figures, and we expect this deal to provide meaningful funding to support the development of our pipeline over the coming years.

With the CSL partnership in place we are prioritizing our regulatory and clinical efforts toward larger commercial markets. CSL is responsible for providing guidance and updates pertaining to ARCT-154 and any of its future derivatives

BARDA

Moving now to our second recent external agreement with Biomedical Advanced Research and Development Authority (BARDA). This transaction provided Arcturus with an award valued at up to $63.2M over three years. The award will support preclinical, manufacturing, nonclinical safety studies, along with development and regulatory support for Arcturus' self-amplifying mRNA vaccine platform technology for rapid pandemic influenza response through Phase 1 clinical studies.

Our low-dose lyophilized vaccines are preferable when stockpiling footprint and pandemic preparedness are taken into consideration. Self-amplifying mRNA vaccines have the potential to provide safe and effective protection against disease with the specific advantage of rapid scale-up, lower doses, and easier transport and storage. These are qualities essential to a rapid response against pandemic influenza and are consistent with strategic objectives of the U.S. government's National Strategy for Pandemic Influenza. We believe that this highly sought-after BARDA award provides further validation for our technology, and its promise to deliver important new vaccines and medicines.

This agreement establishes a meaningful contractual relationship with the US government, so when the next pandemic occurs (heaven-forbid), Arcturus may have a more streamlined process to accessing pandemic-related government funding.

I also want to acknowledge that the CSL collaboration agreement allows for Arcturus to perform its obligations under the BARDA contract.

OTC

Now moving to ARCT-810, our therapeutic candidate for ornithine transcarbamylase deficiency or OTC deficiency. Our therapeutic candidate aims to address the deficient OTC enzyme in the liver of individuals living with this disease. ARCT-810 has the potential to restore urea cycle activity, prevent or slow the progression of neurological damage, and potentially expand dietary options and improve on the quality of life for people living with this condition.

All subjects in our Phase 1b single ascending dose (SAD) study have completed dosing, including the cohort dosed at 0.4 mg/kg, without requiring steroid co-treatment.

We continue to advance ARCT-810 in a Phase 2 randomized, double-blind, placebo-controlled, nested single and multiple ascending dose clinical trial, whose design will enroll 24 adolescents and adults living with this disease. The study is being executed in multiple European countries. The participating sites are working with several dozen identified patients through the pre-screening process with dosing beginning this quarter.

Next year, the Company will strategically share interim ARCT-810 clinical data simultaneously with the announcement of new, additional liver therapeutic programs. So, we look forward to that.

CF

Moving now to our cystic fibrosis program, we've continued to progress the necessary pre-clinical and non-clinical studies to enable ARCT-032 to move to the clinic. ARCT-032 is our inhaled messenger RNA therapeutic candidate for cystic fibrosis. New preclinical data was presented, and well-received, at the 2022 North American Cystic Fibrosis Conference last week, and we included some of that data in our press release today. The new data slides presented at the NACFC are readily available on our website, if you click on the publications tab.

These data provide further support for the therapeutic potential of ARCT-032.

Three critical steps for an inhaled mRNA therapy to be successful -- delivery, protein expression, and functional restoration.

Delivery --
These NEW preclinical data demonstrated effective delivery of mRNA to bronchial and tracheal epithelial cells even in the presence of CF sputum (or mucus). These successful delivery data are attributed to Arcturus' proprietary LUNAR® technology. We have previously shared successful inhaled delivery data in multiple animal models including healthy mice, rats, ferrets and primates. These new data, however, were collected utilizing a well-established CF Ferret model wherein these animals present mucus that coats the airway epithelial cells in their lungs. The observed effective delivery of mRNA in this CF Ferret model is noteworthy.

Protein expression –
Treated human bronchial epithelial (HBE) cells from CF donors with ARCT-032 *in vitro* demonstrated robust expression of mature CFTR protein at levels comparable to control non-CF ('wild type,' WT) donors.

Functional restoration –
Additional *in vitro* data demonstrated robust restoration of CFTR transporter activity. Bronchial epithelial cells (BECs) obtained from human CF donors were treated with ARCT-032. After treatment, we observed a significant increase in chloride ion current, up to 70% restoration, compared to control BECs obtained from non-CF donors.

Summary

Successful delivery of mRNA to tracheal and bronchial epithelial cells in the presence of mucus in a CF Ferret model. Robust in vitro expression of CFTR protein alongside functional restoration of chloride ion current, comparable to controls.

ALL of these are important milestones for the ARCT-032 program.

We believe that this therapeutic candidate ARCT-032 may bring significant benefits to individuals living with CF, including those unaided by the currently available treatments.

We continue to anticipate submission of a clinical trial application (or CTA) for ARCT-032 by year-end.

I will now pass the call on to Andy Sassine, our CFO, to provide financial updates.

Andrew Sassine

Thank you, Joe, and good afternoon, everyone. The press release issued earlier today includes financial statements for the third quarter of 2022 and provides a summary and analysis of year-over-year and sequential financial performance. Please reference our 10-Q for more detail on the financial performance.

I'll begin with a summary of the CSL agreement we signed last week. Under the terms of the agreement, Arcturus will receive $200 million upfront and is eligible to receive over $1.3 billion in development milestones and over $3 billion in commercial milestones. In addition, the Company is eligible to receive a 40% net profit share for COVID-19 vaccine products and up to double-digit royalties for vaccines against flu, pandemic preparedness and three other respiratory pathogens.

This is a 60/40 profit sharing agreement on covid-19 vaccine products and with respect to the program costs, we expect the Milestones will cover all of our expenses going forward. We provided CSL some R&D credits which are spread out over 5 years and will likely be applied to the FLU and other programs.

The CSL transaction is subject to filing under the Hart Scott Rodino antitrust act. The HSR filings have been made by both parties and we are in the waiting period.

Assuming the transaction closes and we receive the $200 million up front payment, we expect that Arcturus will be funded for three years based on our current pipeline and no revenues from any product sales. This assumes the milestones will cover most of our covid program costs.

In evaluating new collaborations, we take a comprehensive view of new potential agreements and how they align with our existing agreements to ensure that our plans support our longer-term strategy to advance our pipeline, and create shareholder value.

Last week, Vinbiocare and Arcturus mutually terminated our MRNA licence and covid19 supply agreement and entered into a Study Support Agreement. Vinbiocare did not strategically fit in with the combined CSL/Arcturus global manufacturing plan. However, we continue to work closely with Vinbiocare and Vietnam to prepare the clinical data collected for regulatory approvals in certain countries.

I will now provide a quick summary of our financial results. We reported revenues of $13.4 million for the third quarter of 2022 compared to revenues of $2.4 million in the three months ended Sept. 30, 2021. The increase in revenues was predominantly drive by the Vinbiocare agreement.

we reported total operating expenses of $50.2 million during the third quarter of 2022 compared to operating expenses of $56.3 million in the three months ended Sept. 30, 2021. The decline in operating expenses was primarily due to lower manufacturing costs.

Finally, we reported a net loss of approximately $35.3 million or $1.33 per basic and diluted share for the third quarter of 2022 compared to a net loss of $54.1 million or $2.05 per basic and diluted share in the three months ended Sept. 30, 2021.

As Joe mentioned earlier, we also signed an agreement with BARDA that will provide up to $63M in funding to the Company over the next three years. Supported by these two new agreements, Arcturus is expected to be in a very strong financial position over the next few years. As discussed, the Company is expecting to receive $200.0 million from CSL upon expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act.

We believe that our Company has the resources needed to achieve multiple value creating milestones for our vaccine and therapeutic programs. I will now pass the call back to Joe.

Joe Payne

Thanks, Andy. We are highly encouraged about the potential of our mRNA vaccine and therapeutic pipeline and we're very pleased with our recent progress.

This recent period has been highlighted by the closing of meaningful agreements and continued advancement of our pipeline of mRNA vaccines and therapeutics. We believe our agreement with CSL Seqirus opens enormous opportunities for our Company and we are excited for continue to execute on our mission to bring meaningful new treatments to patients, while also rewarding our shareholders.

We look forward to providing you with future updates on our progress and I'll now turn the call back to the operator for questions.