



Chardan Capital Healthcare

**Chardan Healthcare Acquisition Corporation/BiomX Ltd.
Merger Announcement**

July 17, 2019

CORPORATE PARTICIPANTS

Jonas Grossman, *Chief Executive Officer, Chardan Healthcare Acquisition Corporation*

Dr. Gbola Amusa, *Executive Chairman, Chardan Healthcare Acquisition Corporation*

Jonathan Solomon, *Chief Executive Officer, BiomX Ltd.*

PRESENTATION

Operator:

Good morning and welcome to the Chardan Healthcare Acquisition Corporation and BiomX Ltd. Merger Announcement Call. Today's conference is being recorded.

Leading the call today is Mr. Jonas Grossman, Chief Executive Officer of Chardan Healthcare Acquisition Corporation. Joining him today will be Dr. Gbola Amusa, Executive Chairman of Chardan Healthcare Acquisition Corp., and Mr. Jonathan Solomon, Chief Executive Officer of BiomX.

Last night, Chardan Healthcare Acquisition Corporation and BiomX issued a press release announcing their planned merger. A copy of the release can be found at www.biomx.com.

Before we begin, I would like to remind everyone that contents and various remarks about future expectations, plans, and prospects constitute forward-looking statements for purposes of the Safe Harbor provisions under the Private Securities Litigation Reform Act of 1995. Chardan Healthcare Acquisition Corporation and BiomX caution that these forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those indicated. Chardan Healthcare Acquisition Corporation and BiomX encourage you to review the press release and other filings of Chardan Healthcare Acquisition Corporation with the Securities and Exchange Commission, which identify specific factors that may cause actual results or events to differ materially from those described in the forward-looking statements.

As a reminder, this conference call is being recorded and will be available for audio rebroadcast on www.biomx.com. Furthermore, the content of this conference call contains time-sensitive information that is accurate only as of the date of the live broadcast, July 17, 2019. Chardan Healthcare Acquisition Corporation and BiomX undertake no obligation to revise or update any statements to reflect events or circumstances after the date of this conference call.

With that, I would like to now turn the call over to Jonas Grossman, Chief Executive Officer of Chardan Healthcare Acquisition Corporation. Mr. Grossman, please go ahead.

Jonas Grossman:

Thank you, Operator, and good morning everyone. We are thrilled to be here this morning to announce the proposed business combination between Chardan Healthcare Acquisition Corp, or CHAC, and BiomX Ltd., or BiomX, an emerging biotech company with cutting-edge capabilities relevant in the microbiome

sector. BiomX is developing products using both natural and engineered phage technologies designed to target and destroy bacteria that affect the appearance of skin, as well as potentially harmful bacteria in chronic diseases, such as inflammatory bowel disease, colorectal cancer and primary sclerosing cholangitis, a rare liver disease for which there are no approved therapies. BiomX's first candidate product is designed to improve the appearance of acne-prone skin and is expected to enter the clinical trials later this year in collaboration with a leading global cosmetics company.

Before I go into the details of our proposed merger, let me give you a little background on CHAC. CHAC is a special purpose acquisition company formed to effect a business combination. We focused on innovative biotechnology companies that would benefit from a public listing, that could use CHAC's cash resources to develop potentially groundbreaking therapeutics, and whose products and technology could lead to high-potential commercial products generating long-term returns for CHAC shareholders. CHAC raised \$70 million in December 2018 through an IPO and immediately started searching for a potential merger partner. We believe we have found such a partner in BiomX that meets our investment requirements and believe this transaction will leave BiomX with a strong balance sheet and sufficient cash for the company to reach multiple value inflection points in its leading clinical programs.

Turning to the details of this transaction, we have already entered in commitments with investors for \$50 million of capital of the \$70 million in trust through a mix of purchase and sale, backstop, and voting agreements. We believe this satisfies the minimum cash condition required in our Merger Agreement with BiomX. We are pleased that investors, including OrbiMed, RTW Investment, Johnson & Johnson Innovation, Takeda Ventures, and Seventure Partners are participating in the investment. To us, this demonstrates confidence in BiomX's technologies, and in phage as a therapeutic modality.

Assuming no redemption of CHAC shareholders, the transaction reflects a current valuation for the combined entity of approximately \$254 million. At closing, we estimate that BiomX securityholders, which are already participating in this financing, will own approximately 73% of the company. CHAC will be renamed BiomX and emerge from this transaction as an independent and well-capitalized public microbiome discovery company with potentially disruptive and safe precision therapies targeting harmful bacteria in vast-market chronic disease areas and conditions.

With that, it is now my pleasure to turn the call over to Dr. Gbola Amusa, Executive Chairman of CHAC. Gbola will tell you more about why CHAC chose BiomX for the business combination. He will be followed by Mr. Jonathan Solomon, CEO of BiomX, who will further discuss BiomX's technologies and the main clinical milestones that the company can deliver in the very near future. Gbola?

Dr. Gbola Amusa:

Thank you, Jonas and thank you to everyone for joining today's conference call.

We are truly excited about this proposed transaction. BiomX has at least five key qualities CHAC was looking for in a company, namely: One, it's a company with potentially disruptive, safe, and emerging technologies derived from preeminent science and scientific founders; Two, it's a company whose technologies are applied in spaces with vast market potential; and three, which has intellectual property that further creates barriers to entry. We also believe, four, multiple potential BiomX clinical readouts create diversified paths to value inflections points ahead of future revenues and profits, and five, BiomX has an experienced management team we believe is ready to head a public company. We further note investor support from leading life sciences and strategic investors.

We wish to also highlight the microbiome medicines as an important and potentially emerging space focused on the health effects of the communities of microorganisms that live in or on the human body.

Although promising therapies are being investigated that add potentially beneficial bacteria to patients to improve their health outcomes, phage therapies like those from BiomX are potentially beneficial as a safe, precision tool for the eradication of specific harmful strains of bacteria. Indeed, we are encouraged by the venture capital investment momentum in phage in the last few months at a time when case studies of successful compassionate use have been reported where phage therapy was effective and generally well-tolerated for difficult-to-treat pathological infections. Given the understood limitations of antibiotic therapies, such as drug resistance, a lack of precision in antibacterial activity, and thus the inability to apply antibiotics to a number of chronic diseases, we see great potential in safe phage therapies when used as cocktails. With the understanding of the limitations of antibiotics and the advent of modern molecular computational and synthetic biology tools, we believe that phage may be on the verge of playing a meaningful role in the treatment of chronic diseases with harmful bacteria as causative agents. To us, BiomX is well positioned to access this opportunity given what we see as the Company's blend of state-of-the-art microbiome, phage, computational biology, and synthetic biology technologies originally licensed from sources like the Weizmann Institute and MIT.

BiomX's pipeline today addresses four main targets. Specifically, the technologies are being applied to the develop products for, one, acne-prone skin, as a cosmetic products; two, inflammatory bowel disease, or IBD, as a prescription product; three, primary sclerosing cholangitis, a rare liver disease, as a prescription product; and four, colorectal cancer as a prescription product. We believe each of these markets is a significant opportunity.

For example, the global market for cosmetics products for acne-prone skin according to WiseGuy Reports was approximately \$4 billion in 2018. EvaluatePharma estimates the global IBD and global colorectal cancer markets, respectively, generated \$17.7 billion and \$8.4 billion in prescription sales in 2018. For another of BiomX's target indications, PSC, we estimate the total addressable U.S. market could be more than \$3.5 billion in sales in a market where, to date, there are no approved therapies. To us, these are important markets, and we see the potential that BiomX's products could be disruptive in each. In particular, we believe the lead BiomX candidate, BX001 for the improvement of the appearance of acne-prone skin, represents a lower-risk path to revenues given the cosmetic path to market.

I would like to take a minute to discuss the potential for safety of phage since human exposure to phages occurs every day. We note certain bacteriophage cocktails are generally recognized as safe, or GRAS, under U.S. food laws and have been approved as food additives. Indeed, during a July 10, 2017 session at the U.S. Food and Drug Administration entitled 'Bacteriophage Therapy: Scientific and Regulatory Issues Public Workshop', Dr. Doran Fink of the Center for Biologics Evaluation and Research at the FDA stated that phage target specific bacteria and are presumed to not affect human cells and tissue. We believe potentially transformative biotechnologies associated with safety have increased the likelihood to meet unmet medical needs in large chronic disease markets given desires for wide safety margins.

In summary, we like BiomX's blend of unique microbiome, phage, computational biology, and synthetic biology technologies and the IP surrounding them. We like the barriers to entry they create, the potential for phage safety, and thus the large-market unmet medical needs BiomX's technologies potentially address. We further believe BiomX is led by a team of highly experienced, seasoned veterans who know how to build and grow a company.

With that, it's my pleasure to now turn the call over to Mr. Jonathan Solomon, CEO of BiomX, who will tell you more about BiomX's history, its technologies, and the company's strategic development plan.

Jonathan Solomon:

Thank you, Gbola. Good morning all. Let me begin by thanking the team at Chardan for working so closely with us to bring this merger with CHAC. Their experience in working with SPACs along with their deep understanding of the public markets and the microbiome space in biotech has been invaluable in advancing this merger. We have developed a strong rapport with the team, and we look forward to continuing to tap into their knowledge and expertise as we advance our programs in the coming years.

Let me take a step back for a moment and provide you with a brief history of BiomX to provide some context and insight for how we came to this point and why we are so excited about this merger. We were founded in 2015 based on cutting edge research out of our three scientific founders.

From the Weizmann Institute of Science, Professor Rotem Sorek leads the Microbial Genomics group in the Department of Molecular Genetics and is a world leader in phage biology and bacterial defense systems. Also from Weizmann, Professor Eran Elinav is leading a research group in the Immunology Department and is a world-renowned microbiome researcher. Our third scientific founder, Professor Timothy Lu is an associate professor of Biological Engineering and Electrical Engineering and Computer Science, leading a Synthetic Biology Group at MIT.

Together, they observed the microbiome field and noticed that while various companies add bacteria, the need to eradicate specific bacteria without the undesired effects of antibiotics on beneficial bacteria seemed underserved. With the advent of modern molecular biology tools, high throughput genomic sequencing and computational capabilities and synthetic biology, our co-founders sought a way to convert endogenous properties of phage into candidates that confer potential advantages to overcome historical hurdles, opening up a new era in the development of phage. Our candidate products compromise natural or engineered phage cocktails designed to improve the appearance of acne-prone skin and eradicate harmful bacteria in chronic diseases.

The combination of the technologies and expertise from these leaders in each of their respective fields was highly advantageous in enabling our company to develop products to address complex human diseases and conditions by precise manipulation of the microbiome. We continue to work closely with our scientific co-founders, as well as our scientific advisors, to advance our programs to support our future growth.

Along with strong scientific support, we have been fortunate to have strong financial support from our investors, including J&J Innovation, Takeda Ventures, OrbiMed, Seventure and others. These are knowledgeable strategic life-science investors, all of whom are participating in this financing and are strong believers in our science and the exciting potential of phage as a therapeutic modality for chronic diseases.

This merger comes at an important strategic point in our development and provides financial resources to advance our four programs. The merger with CHAC provides BiomX financial flexibility with near-term financial support and financing options going forward as we build out our clinical program and manufacturing infrastructure. The merger will also extend our financial runway past key inflection points in our leading programs which potentially could be value-drivers for BiomX. Let me walk you through some of the details of each program.

In acne, BX001 is our topically-administered product candidate intended to improve the appearance of oily and acne-prone skin. We are developing BX001 in collaboration with a leading global cosmetics company and plan to initiate clinical testing this year. From our early data, we have observed that BX001 is effective on more than 96% of the clinical bacterial isolates tested in vitro, including variants that are resistant to antibiotics. We will conduct two initial studies, a trial in 30 healthy volunteers and a trial in 75 individuals with acne. The endpoint of both studies is safety and tolerability of BX001. We will also assess exploratory endpoints to evaluate the effect of BX001 on *P. acnes*, overall skin microflora and on skin appearance. We anticipate data from these trials to be available in the first quarter of 2020.

Acne-prone skin is widespread in the population. According to available data, acne is estimated to affect 9.4% of the global population. There are an estimated 50 million people in the United States who suffer from acne each year, 85% of whom are between the age of 12 to 24. We are very excited about the potential in this market.

In Inflammatory Bowel Disease, or IBD, we are developing BX002, our therapeutic phage candidate. IBD is a disease that is strongly linked to specific alterations in the microbiome and our phage therapy is well-suited to address this indication. BX002 targets bacterial strains that were isolated from IBD patients, and which were shown to be pro-inflammatory in animal models and may have a role in the onset and aggravation of the disease. These findings were discovered by Prof. Kenya Honda from Keio University and published in *Science* magazine. In our internal studies, BX002 led to a sustained reductions in levels of the pathogenic bacteria in mouse models. We plan to conduct a pre-IND meeting with the FDA and anticipate filing of an IND for BX002 in 2020 with plans to initiate a Phase 1 clinical trial shortly thereafter. We anticipate announcing results from this Phase 1 in the second half of 2020. If we observe promising results, we should initiate Phase 2 clinical trial of BX002 in 2021.

BX003 is our therapeutic phage candidate targeting certain strains of a bacteria named *K. pneumoniae*, associated with primary sclerosing cholangitis, or PSC. PSC is a progressive liver disease for which there are no approved therapies, and which often leads to liver failure. PSC is an under-diagnosed orphan disease with an estimated prevalence in the United States of approximately 30,000. BX003 targets certain bacterial isolates that were cultured from human PSC samples and induce a Th17 immune response and are able to induce epithelial permeability, also known as leaky gut, in cellular monolayers and in animals.

In colorectal cancer, we are developing phage designed to target specific strains of bacteria that are believed to be pathogenic and that are found in the tumors of patients with CRC. CRC is the second leading cause of cancer deaths in the United States. The Centers for Disease Control and Prevention estimates that there were over 140,000 new cases of CRC and over 52,000 CRC-related deaths in the United States in 2016. Colorectal tumors have been found to be enriched in the levels of a bacteria species known as *Fusobacterium nucleatum*. The levels of this bacterium can be hundreds of times higher in tumors than in adjacent non-tumor tissues. We are currently using synthetic biology to modify *F. nucleatum* temperate phage into lytic forms as well as to add genes encoding immunostimulatory payloads which we believe will enhance the ability of these phage to serve as immuno-oncology stimulatory agents capable of turning cold tumors into hot tumors.

Looking at our programs as a whole, you can see the opportunity for multiple inflection points in the coming year and a half as we advance the role of the microbiome and our phage cocktails to address acne-prone skin as well as a range of diseases.

These are exciting times for BiomX and CHAC and we look forward to executing on our strategic development plan and sharing updates with you on future calls.

Jonas Grossman:

Thank you for joining us today. We hope you have come to appreciate our enthusiasm for this transaction and we look forward to keeping you updated on the company's progress.

Operator:

Thank you. You may disconnect your lines at this time. Thank you for your participation.

