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CollPlant Advances its 3D Bioprinted Regenerative Breast Implants into Porcine Study

- ***rhCollagen-based regenerative breast implants address $2.8 billion global breast implant market with revolutionary and potentially safer new product***
- ***Regenerative breast implants for aesthetic and reconstructive procedures including postmastectomy for cancer patients***
- ***The study is planned to be concluded within six months***

REHOVOT, Israel, June 28, 2022 /PRNewswire/ -- **CollPlant** (Nasdaq: CLGN)**,** a regenerative and aesthetics medicine company developing innovative technologies and products for tissue regeneration and organ manufacturing, today announced the initiation of a study in large animals for its 3D bioprinted regenerative breast implant program, addressing the $2.8 billion global breast implant market.

"This study is a quantum leap in the development of 3D bioprinted regenerative breast implants," said Yehiel Tal, CollPlant's Chief Executive Officer. "We believe that our regenerative breast implants will address safety challenges associated with silicone implants while also providing a more natural looking and feeling aesthetic result. Immediately following the conclusion of this study, we are planning to launch a second study with human size implants that mimic commercial products. These studies will advance us to the significant stage of human clinical trials."

CollPlant's bioprinted regenerative implants aim to overcome the challenges of existing breast procedures that use silicone implants or autologous fat transfer. According to the U.S. Food and Drug Administration, approximately 350,000 people have reported adverse events involving breast implants between 2009 and 2019. Reports range from autoimmune symptoms to breast implant-associated anaplastic large cell lymphoma (BIA-ALCL).

CollPlant's regenerative breast implants are comprised of the Company's proprietary plant-derived rhCollagen, an ideal building block for regenerative medicine implants attributed to better bio-functionality, superior homogeneity, and improved safety. The printed implant is intended to degrade over time while promoting natural tissue regeneration and integration with host tissue. 3D bioprinting technology enables scalable production of highly precise and repeatable constructs, which can be customized to the individual anatomy of patients. The implants are designed to withstand physiological loads and to provide what CollPlant believes is a safer, more natural, and long-lasting alternative to current breast reconstruction and augmentation procedures.

To date, CollPlant has successfully produced prototypes of 3D bioprinted implants designed to regenerate breast tissue and evaluated these in a series of preclinical studies. The Company is now approaching an important milestone with the launch of a large animal study that involves the implantation of reduced-size 3D bioprinted implants in a clinically relevant porcine animal model. The study, which is planned to be concluded within six months, will evaluate adipose tissue regeneration, tissue integration, vascularization of the implant, implant degradation rate, and host tissue response to the implant. The study will also include screening of compositions and optimization of the surgical procedure, which will serve as the basis for the design of a pivotal large study with human size implants.

In the product development process, CollPlant uses computational modeling tools that enable an optimal design of the implant in terms of geometry, materials, physical properties, and biological environment. The modeling takes into consideration the internal anatomy of the breast tissue and the behavior of an implant, post-implantation. The implant testing is rigorous and includes static and dynamic loading in order to mimic breast tissue behavior under different conditions and comply with the most stringent safety requirements.

About CollPlant

CollPlant is a regenerative and aesthetic medicine company focused on 3D bioprinting of tissues and organs, and medical aesthetics. The Company's products are based on its rhCollagen (recombinant human collagen) produced with CollPlant's proprietary plant based genetic engineering technology. These products address indications for the diverse fields of tissue repair, aesthetics, and organ manufacturing, and are ushering in a new era in regenerative and aesthetic medicine.

At the beginning of 2021, CollPlant entered into a development and global commercialization agreement for dermal and soft tissue fillers with Allergan, an AbbVie company, the global leader in the dermal filler market. Later in 2021, CollPlant entered a strategic co-development agreement with 3D Systems for a 3D bioprinted regenerative soft tissue matrix for use in breast reconstruction procedures in combination with an implant.

For more information about CollPlant, visit http://www.collplant.com

Safe Harbor Statements

This press release may include forward-looking statements. Forward-looking statements may include, but are not limited to, statements relating to CollPlant's objectives plans and strategies, as well as statements, other than historical facts, that address activities, events or developments that CollPlant intends, expects, projects, believes or anticipates will or may

occur in the future. These statements are often characterized by terminology such as "believes," "hopes," "may," "anticipates," "should," "intends," "plans," "will," "expects," "estimates," "projects," "positioned," "strategy" and similar expressions and are based on assumptions and assessments made in light of management's experience and perception of historical trends, current conditions, expected future developments and other factors believed to be appropriate. Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. Many factors could cause CollPlant's actual activities or results to differ materially from the activities and results anticipated in forward-looking statements, including, but not limited to, the following: the Company's history of significant losses, its ability to continue as a going concern, and its need to raise additional capital and its inability to obtain additional capital on acceptable terms, or at all; the impact of the COVID-19 pandemic; the Company's expectations regarding the timing and cost of commencing clinical trials with respect to tissues and organs which are based on its rhCollagen based BioInk and products for medical aesthetics; the Company's ability to obtain favorable pre-clinical and clinical trial results; regulatory action with respect to rhCollagen based BioInk and medical aesthetics products including but not limited to acceptance of an application for marketing authorization review and approval of such application, and, if approved, the scope of the approved indication and labeling; commercial success and market acceptance of the Company's rhCollagen based products in 3D Bioprinting and medical aesthetics; the Company's ability to establish sales and marketing capabilities or enter into agreements with third parties and its reliance on third party distributors and resellers; the Company's ability to establish and maintain strategic partnerships and other corporate collaborations; the Company's reliance on third parties to conduct some or all aspects of its product manufacturing; the scope of protection the Company is able to establish and maintain for intellectual property rights and the Company's ability to operate its business without infringing the intellectual property rights of others; the overall global economic environment; the impact of competition and new technologies; general market, political, and economic conditions in the countries in which the Company operates; projected capital expenditures and liquidity; changes in the Company's strategy; and litigation and regulatory proceedings. More detailed information about the risks and uncertainties affecting CollPlant is contained under the heading "Risk Factors" included in CollPlant's most recent annual report on Form 20-F filed with the SEC, and in other filings that CollPlant has made and may make with the SEC in the future. The forward-looking statements contained in this press release are made as of the date of this press release and reflect CollPlant's current views with respect to future events, and CollPlant does not undertake and specifically disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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