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First-in-Kind Fully Humanized 3D Bioprinted Human Skin Model Developed by Mayo Clinic Researchers using CollPlant's rhCollagen-Based BioInk

- *The bioprinted skin model is designed to serve as an alternative to animal testing for preclinical research.*
- *According to a scientific article published in the Archives of Dermatological Research, the model developed by Mayo Clinic researchers combines CollPlant's plant-derived recombinant human collagen (rhCollagen) with distinct and essential human skin cell types.*
- *This innovative platform offers a sustainable and ethical solution for cosmetic and pharmaceutical testing, disease modeling, and drug development.*

REHOVOT, Israel, Oct. 16, 2025 /PRNewswire/ -- CollPlant Biotechnologies (NASDAQ: CLGN), a regenerative and aesthetic medicine company developing disruptive technologies and products based on its proprietary, non-animal recombinant human collagen (rhCollagen), today announced that, according to a scientific article published in the Archives of Dermatological Research, researchers from Mayo Clinic have developed the first fully humanized 3D bioprinted skin model using CollPlant's plant-derived rhCollagen. The model represents an innovative alternative to animal testing for preclinical research, with broad potential applications in cosmetic and pharmaceutical testing, disease modeling, and drug development.



The novel model specifically consists of CollPlant's rhCollagen-based bioinks used for 3D

bioprinting and human skin fibroblasts, melanocytes and keratinocytes. The integration of these constructs into a skin-on-a-chip system enables the evaluation of topical and transdermal drug delivery in a non-animal model. In addition, the 3D bioprinting of skin using plant-derived rhCollagen presents significant advantages, including high-throughput production of personalized human skin models, and potential applications in regenerative medicine and other areas of medicine.

Yehiel Tal, Chief Executive Officer of CollPlant, commented, "We are excited about the impressive and innovative work resulting from Mayo Clinic's research and utilizing our rhCollagen technology. The model presents significant advantages, including providing a template for producing personalized human skin models at scale, enabling the reduction of animal testing, and creating learnings to apply to advancements in regenerative medicine. The results of this study further substantiate the vast potential of rhCollagen-based bioinks for use in 3D bioprinting applications including *in vitro* 3D models as well as in regenerative medicine."

About CollPlant

CollPlant is a regenerative and aesthetic medicine company ushering in a new era of medical solutions with a focus on 3D bioprinting of tissues and organs, tissue repair 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 within the diverse fields of tissue repair, aesthetics, and organ manufacturing.

In 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.

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

Forward-Looking 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 need to raise additional capital and its inability to obtain additional

capital on acceptable terms, or at all; the Company's expectations regarding the costs and timing of commencing and/or concluding pre-clinical and clinical trials with respect to breast implants, tissues and organs which are based on its rhCollagen based BioInk and other products for medical aesthetics, and specifically the Company's ability to initiate its next large-animal study for its breast implants in a timely manner, or at all; the Company's or its strategic partners' ability to obtain favorable pre-clinical and clinical trial results; regulatory action with respect to rhCollagen based bioink and medical aesthetics products or product candidates 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, including its partnership with AbbVie and its ability to continue to receive milestone and royalties payments under the AbbVie agreement; the Company's reliance on third parties to conduct some or all aspects of its product development and 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; current or future unfavorable economic and market conditions and adverse developments with respect to financial institutions and associated liquidity risk; the impact of competition and new technologies; general market, political, and economic conditions in the countries in which the Company operates, including, with respect to the ongoing war in Israel, 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 are 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.

Contacts

CollPlant:

Eran Rotem

Deputy CEO & CFO

+ 972-73-2325600

Eran@collplant.com

Investors:

LifeSci Advisors

Dan Ferry

daniel@lifesciadvisors.com

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Pioneering Regenerative Medicine

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