Joint News Release

GROUPE ROCHER and CTIBIOTECH reveal advanced human 3D-Bioprinted skin of all age groups for advanced cosmetics testing.

- **This innovative work will be presented at IFSSC 2022: International Federation of Societies of Cosmetic Chemists congress in London, UK September 19th-22nd.**
- **This joint publication by CTIBIOTECH and GROUPE ROCHER was selected out of strong top-level international research projects on skincare science.**
- **All ages 3D Bioprinted human skin models offer a powerful platform to assess efficacy of cosmetics products for young and old consumers.**

London, September 19, 2022 – GROUPE ROCHER and CTIBIOTECH have teamed up to create **advanced 3D bioprinted skin models which can mimic young to old**, thin to thick skin and use them for advanced cosmetics research.

Testing advanced cosmetics without animals is essential but requires sophisticated humanised models which give real information. One of the main difficulties is making human skin models that mimic different ages. As cosmetic and personal care products increasing target specific markets it is important to have appropriate testing, from babies to the elderly.

Bioprinting is an additive manufacturing advance that is speeding up the creation of new laboratory skin models which before were a long manual process. But manual or printed, many end up as flat skinned models of the same thickness and often made with cells of many human donors. Young skin is thicker and flatter than old skin which tends to be more wavy and thinner.

Prof Colin McGuckin, President and Chief Scientific Officer at CTIBIOTECH, said: "*The end of animal testing in cosmetics was essential, but leaves a need for accurate human tissue models to test in the laboratory. Creating skin of all ages in the laboratory is a hard task, but an important road towards making cosmetics and personal care products that work for all generations.*"

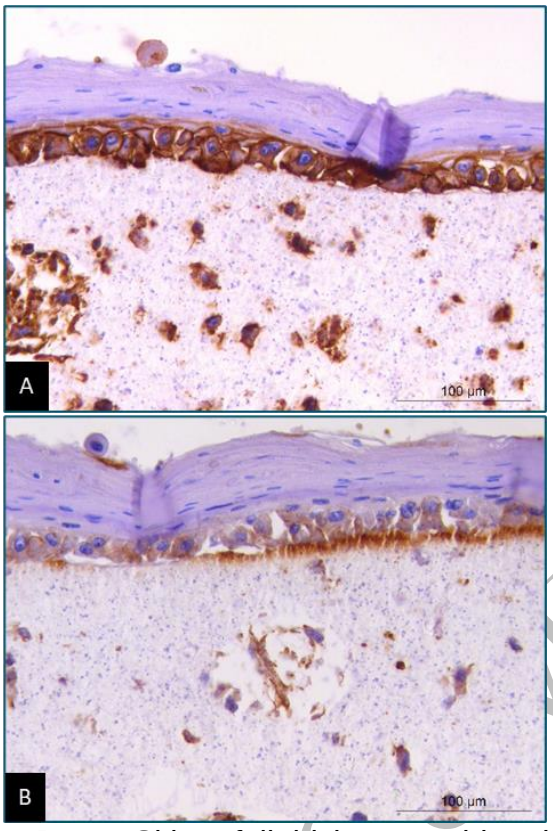
Philippe Msika, Pharm. D., Head of Research-Innovation & Development – GROUPE ROCHER, said: *"We have a strong desire to collaborate with innovative partners allowing us to explore new technologies to increase our skin knowledge / its modeling, to be as close as possible to the vivo. By combining our own innovations regarding our active ingredients and formulas efficacy, we improve products performance to serve our consumers satisfaction."*

The historical concentration of beauty marketing to the young and beautiful has thankfully given way to a broader fairer attention to women of all ages, and even men, with global cosmetics increasingly becoming a mainstream accepted globally. However, cosmetics for all ages is a challenge not to be underestimated. **Young skin has significantly different characteristics to older skin. Thinning characteristics of older skin with changes in specific skin proteins, damaged elastic fibers and increased water loss from the skin barrier. These age-specific changes may lead to differences in how cosmetics react on older skin.** The more sinusoidal nature of older skin in general and tendance towards wrinkles has important implications for how cosmetic ingredients are adsorbed to the skin.

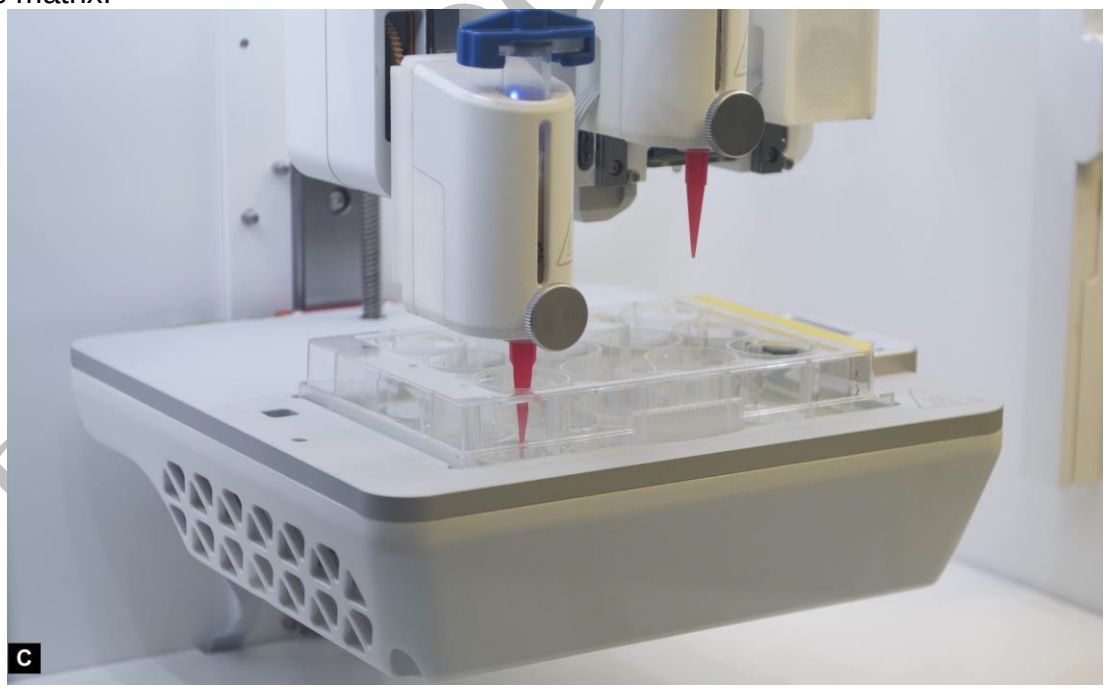
For this reason, **CTIBIOTECH and GROUPE ROCHER have advanced 3D bioprinted full thickness skin models towards creating a variety of age-related models, with same-donor cells (rare for in vitro skin models) to reproduce the level of thickness and sinusoidal behavior seen in real life with the aim to help advance cosmetics efficacy testing.**

CTIBIOTECH and GROUPE ROCHER scientists will present at the IFSCC congress in London, 19-22 September 2022.

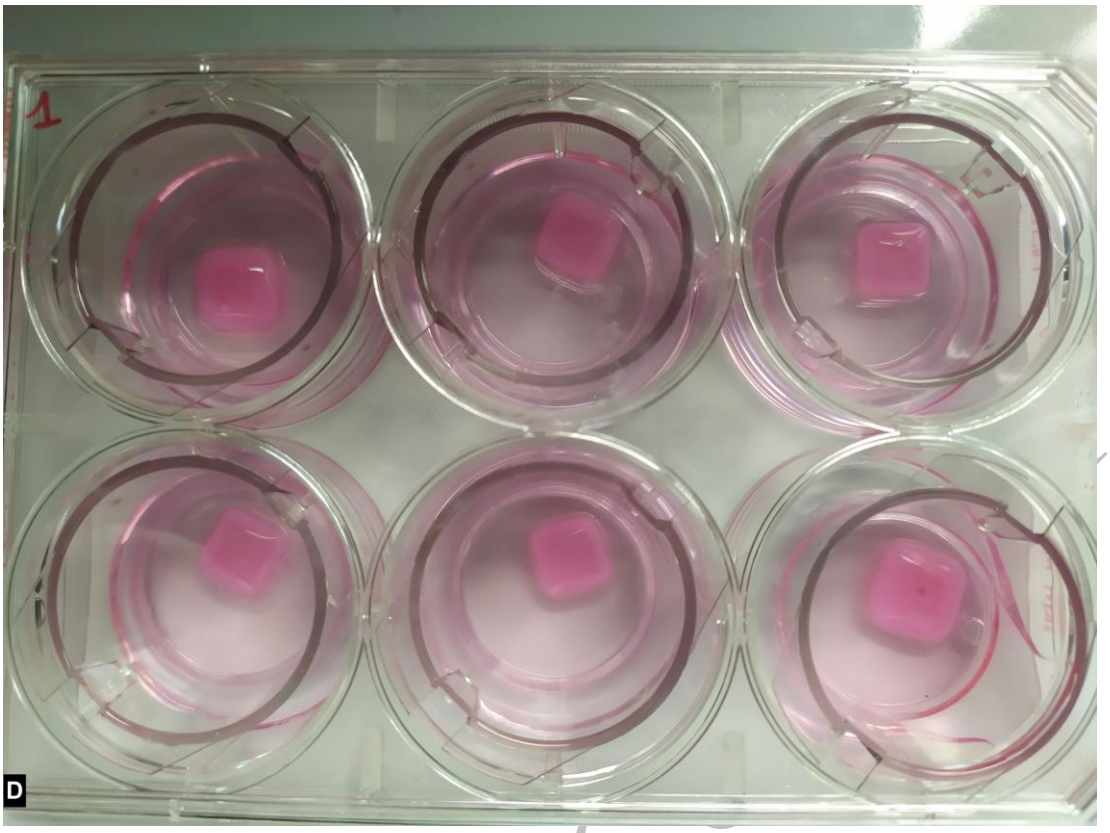
More information on https://www.ifscc2022.com/



A – 3D Bioprinted Young Donor Skin – full thickness epidermis and stratum corneum with a dermis healthy with matrix.
B – 3D Bioprinted Old Donor skin – thinner epidermis with a dermis more diffuse with less matrix.



C – 3D Bioprinter: each printing nozzle dispense human skin cells in a precise manner to reconstruct full skin from old and young donors.



D- 3D Bioprinted human skin growing in the laboratory.

About CTIBIOTECH

CTIBIOTECH develops and produces predictive models of human tissues and cells for biomedical, pharmaceutical and dermatocosmetic research and development. CTIBIOTECH hosts a team of world-class experts who have pioneered innovation in bioengineering and regenerative medicine over the past 30 years. CTIBIOTECH partners with public and private organizations to develop innovative solutions for the efficacy and safety testing of active ingredients, dermatocosmetics, drug candidates, cell therapies and medical devices. Further information: www.ctibiotech.com.

About GROUPE ROCHER

Groupe Rocher is a French family group whose mission is to reconnect women and men to nature. First international group to adopt the status of Mission Driven Company, instituted by the French PACTE law in 2019, it now has 9 brands (Yves Rocher, Arbonne, Petit Bateau, Stanhome, Dr Pierre Ricaud, Kiotis, Sabon, Flormar, ID Perfumes), 50 million customers and nearly 2.4 billion euros in sales.

GROUPE ROCHER
Press contact
Marion Moulin,
Head of Groupe Rocher Corporate Communication
marion.moulin@yrnet.com
R&D Contact
Philippe Msika,
Head of Research – Innovation & Development
philippe.msika@yrnet.com

CTI BIOTECH
Dr Nico Forraz, CEO
Tel +33 6 78 90 38 50
office@ctibiotech.com