EURO COSMETICS

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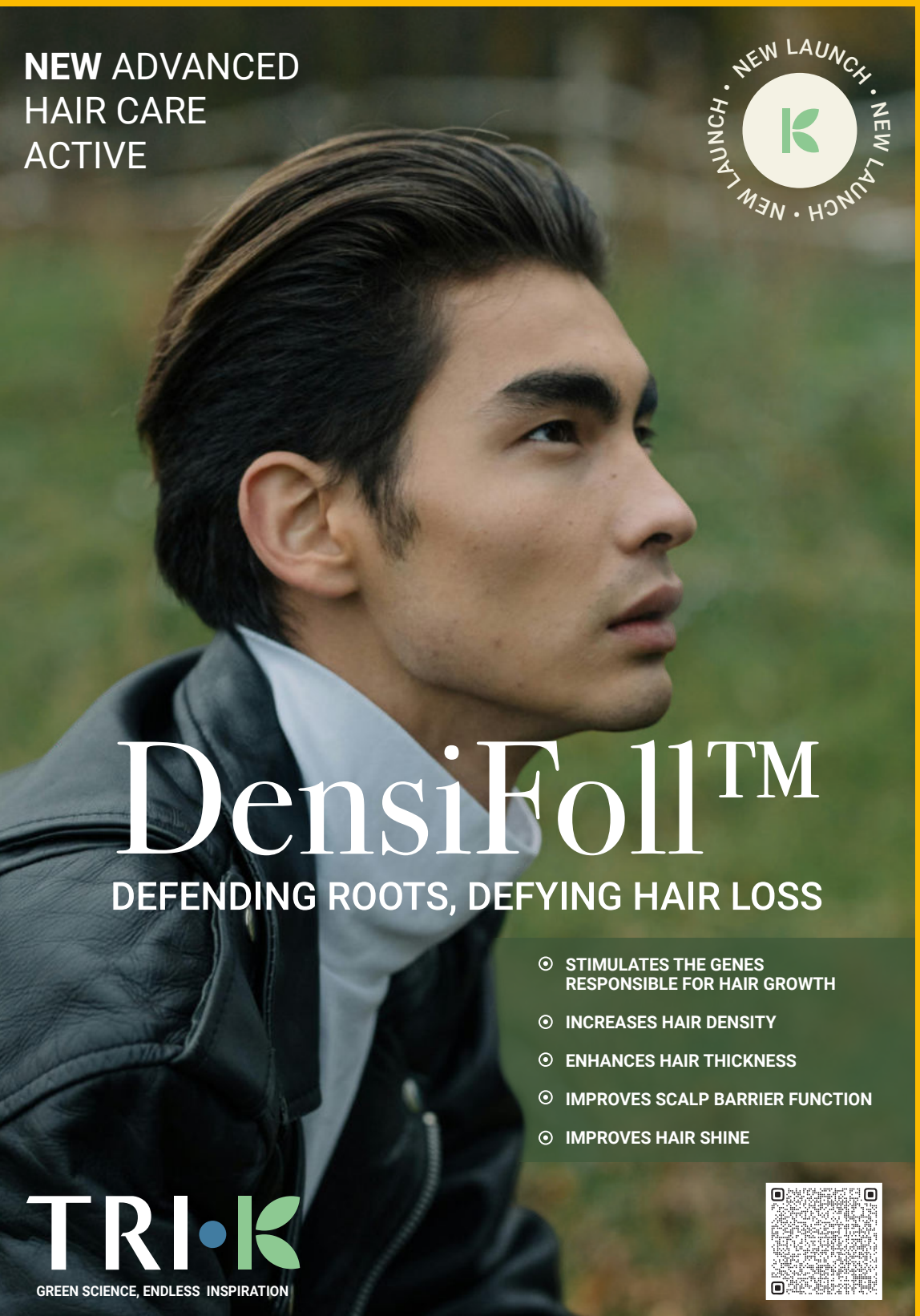

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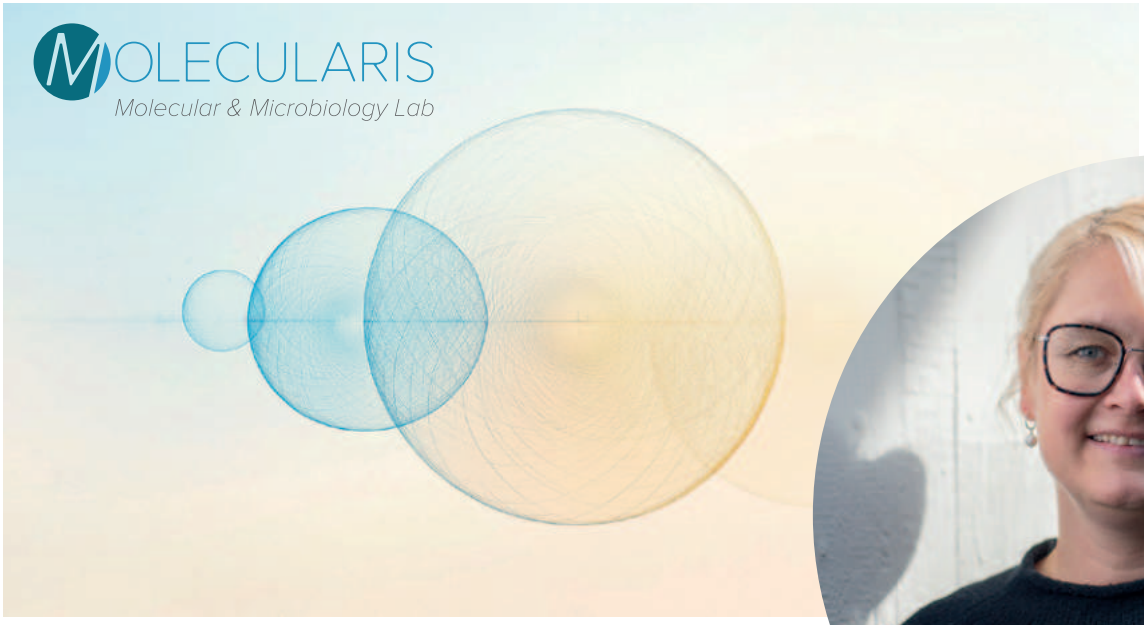
Cutting-edge research and innovation in micro- and molecular product analysis



A conversation with Dr. Lisa Bäumer, Co-founder and Managing Director of Molecularis GmbH

EURO COSMETICS: *Lisa, can you briefly describe your professional background and your commitment to molecular biology?*

Dr. Lisa Bäumer: In 2003, I started studying biology at FAU Erlangen-Nuremberg and developed a great interest in microbiology. My thesis at the Department of Microbiology focused on pathogenic corynebacteria and their interaction with host cells. The results contributed to DFG funding in the SFB 796 and enabled me to directly enter the doctorate, which I completed *summa cum laude* in 2012 and for which I was awarded the Staedtler Prize. I also remained loyal to the corynebacteria in my habilitation (2022, awarded the Emmy Noether Prize). From 2019 to the end of 2024, I headed the laboratory and R&D department of MyMicrobiome AG, where I was responsible for setting up the laboratory, methodological developments and research projects in the microbiome field, among other things. MyMicrobiome provided me with comprehensive support when I started my own business and the close collaboration still continues.

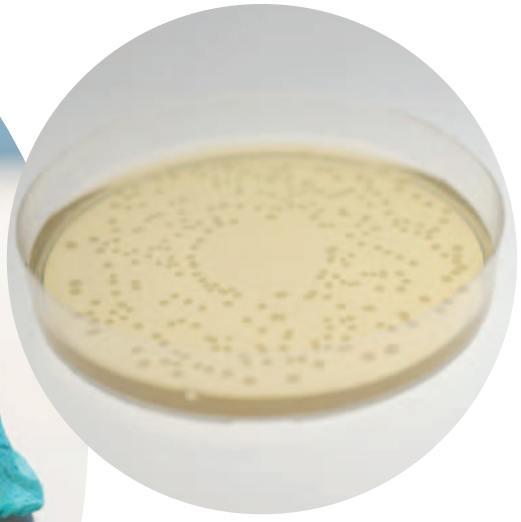
> ***Our recipe for success stems from our commitment to providing customers with high-level science and generating high-quality, valid data.***

EURO COSMETICS: *You founded your own research laboratory, Molecularis GmbH, in January this year. What inspired you to set up your own company?*

Dr. Lisa Bäumer: As part of my scientific career, I have acquired great knowledge in molecular and microbiology and gained extensive practical experience. The support of Prof. Burkovski encouraged my ability to conduct independent and creative research at an early stage. The decision to also use my scientific expertise in an entrepreneurial capacity developed over a longer period of time and was finally implemented at the right time in order to be able to realize my own concepts and projects independently.

EURO COSMETICS: *What challenges did you face before founding the company?*

Dr. Lisa Bäumer: Setting up your own contract laboratory is an exciting and complex challenge. However, I had very good basic prerequisites, which made the decision to set up the company a little easier, as I took over an existing laboratory with a well-established and well-trained team. For me as a microbiologist, understanding business management, personnel management and strategic thinking are therefore the topics that challenge me to run the laboratory successfully. Fortunately, I have



excellent advisors who provide me with significant support – this is how scientific expertise meets entrepreneurial know-how – the best basis for Molecularis.

EURO COSMETICS: *What characterizes your company and what do you specialize in?*
Dr. Lisa Bäumer: Molecularis GmbH offers a wide range of microbiology, molecular biology and toxicology tests. These are both routine analyses and contract research specially tailored to the customer. These include *in vitro* pre-clinical studies, which are a recognized alternative to animal testing. Such systems include isolated organs, cells, molecular units such as enzymes or genes. The main advantage of *in vitro* studies is their reductionist approach, which enables targeted insights into mechanisms of action and excludes interfering factors. In addition, these studies are faster, more reproducible and less expensive than *in vivo* experiments and save a lot of animal suffering.
Our recipe for success stems from our commitment to providing customers with high-level science and generating high-quality, valid data. Our expertise in molecular and microbiology makes us absolute specialists in this field. We also endeavor to use our tests to make a decisive contribution to ensuring that new chemicals, cosmetic products and medicines that come onto the market do not harm people or the environment.

EURO COSMETICS: *What range of services do you offer?*
Dr. Lisa Bäumer: We offer a range of *in vitro* toxicological studies of chemicals and pharmaceuticals according to OECD guidelines, such as the skin corrosion test (OECD 431), the skin irritation test (OECD 439), the severe eye damage test (OECD 491) and also the bacterial reverse mutation test, also known as the AMES test (OECD 471). We work strictly according to GLP (Good Laboratory Practice) guidelines and aim to obtain GLP certification this year. We also offer customized research projects to investigate the effect of a test substance on human cell lines or 3D skin models. This can be used to detect inflammatory reactions or cell death, which can also be carried out in combination with microbial communities (microbiome depending on the area of application). As experts in microbiology, we are able to carry out toxicological studies with aerobic, microaerophilic and strictly anaerobic bacteria, biofilm assays and minimal inhibitory/bactericidal/fungicidal concentrations (MIC/MBC/MFC) in accordance with CLSI guidelines. We establish bacterial co-cultures to perform microbiome studies and are always open to new questions. I love establishing new methods and designing innovative projects with my team. Of course, we also offer quality controls for cosmetics, such as the challenge test, detection of endotoxins and microbiological purity.

EURO COSMETICS: *And which partners do you work with?*
Dr. Lisa Bäumer: Close links with scientific institutions continue to be of central

importance to our work. For this reason, we maintain a close partnership with Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), with whom we have concluded an official agreement for joint research and development. This co-operation enables continuous scientific exchange and the use of current research results for practical applications.

We are also cooperating with the Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB in Stuttgart as part of an innovative research project funded by the Central Innovation Program for SMEs (ZIM) of the German Federal Ministry for Economic Affairs and Climate Protection. This project aims to develop practical solutions in the field of applied microbiology and is an important example of successful cooperation between science and industry.

We are also working on establishing long-term partnerships with international sales partners in order to position ourselves successfully worldwide.

EURO COSMETICS: *What innovative trends do you see in molecular biotechnology, especially in the cosmetics sector?*

Dr. Lisa Bäumer: Cosmetic research is clearly developing in the direction of individually tailored, biotechnologically supported and sustainable skin care. Fermented or plant-based active ingredients that are obtained with the help of modern biotechnology – such as cell cultures – are being used more and more frequently. At the same time, there is growing interest in microbiome-friendly ingredients that support the skin's natural flora. Sustainability plays a key role: clean beauty, the use of upcycled raw materials and waterless formulations such as solid shampoos or serums in powder form are on the rise. There is also a particular focus on strengthening the skin barrier and protecting the microbiome as the basis for healthy skin. Advances in active ingredient delivery systems such as nanotechnology, liposomes or microencapsulation make it possible to deliver sensitive ingredients to the skin in a targeted and effective manner. This is complemented using highly developed active ingredients such as peptides, plant exosomes or growth factor-like molecules for skin regeneration and anti-ageing care.

Modern technologies enable more effective, skin-friendly and more targeted products. At the same time, awareness of the environment, skin health and natural processes is increasing - leading to a more holistic understanding of beauty and skincare. The future of cosmetics is scientifically based, personalized and ecologically responsible.

EURO COSMETICS: *Lisa, thank you for the interview.*