



# **TOPICS**







MARKET CONSOLIDATION

• FINANCIALS













M. GABRIELLA COLUCCI Founder, President and CEO GUALTIERO IOIMO
CFO and Investor Relations Manager







**Arterra Bioscience** is a **biotech company** listed on the "Euronext Growth Milan" market of Borsa Italiana since 2019, founded in Naples by M. Gabriella Colucci in 2004 with the aim of developing technologies and innovative solutions that find application in various industrial sectors.

Arterra is a company strongly linked to the **Campania region** from which it derives the natural raw materials underlying many of its actives, as well as being able to take advantage of the ideas and enthusiasm of its **young researchers**.





# **ARTERRA & VITALAB TEAM**







1,600 sqm





PhD	13
Chem Ing	2
MSc	11
Tech	11
Administration	6
PhD Students	2















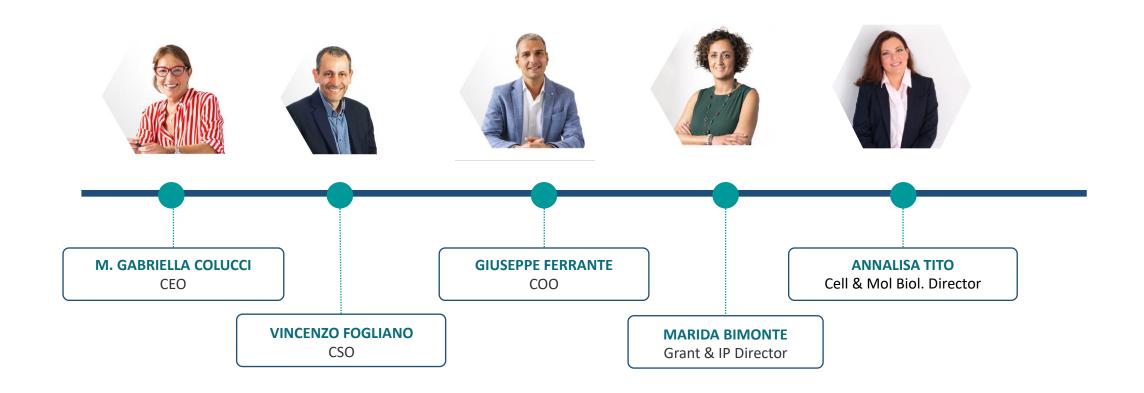


- Chemistry Lab
- Plant Cell Culture Lab
- Microbiology Lab
- Molecular & Cell Biol. Lab
- Histology & Microscopy Lab
- Process Lab
- Production Lab
- Plant Cells Culture Growing Facility
- MicroAlgae Growing Facility
- Plant Growing Facility
- Lactobacillus & Agrobacterium Growing Facility



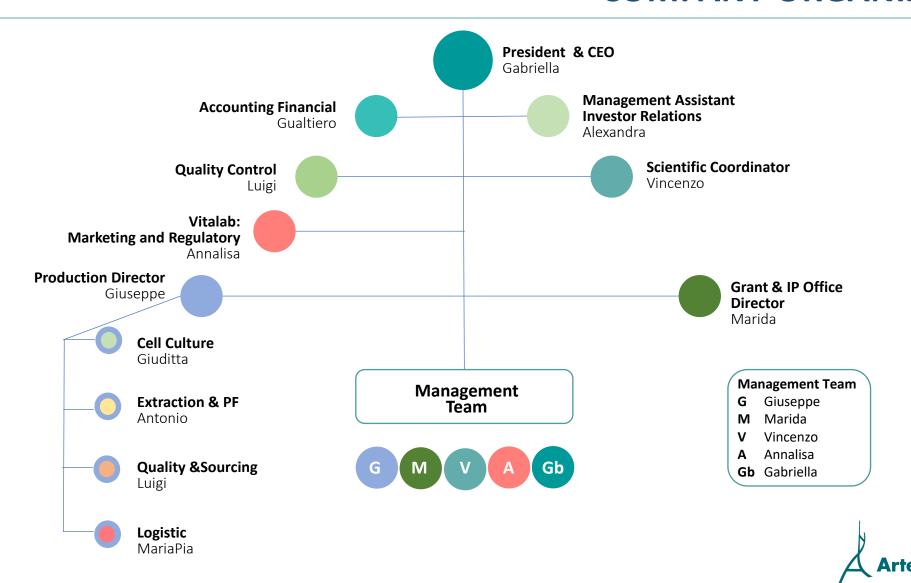
❖ New

# **ARTERRA & VITALAB TEAM**





# **COMPANY ORGANIZATION**



# FROM THE IDEA TO THE PRODUCT

Microbiology Chemistry Scientific Breakthrough **Genetic Engineering Plants** Skin Biology **Biochemistry** New Tech.

### THINK TANK TEAM

**Insight and Feasibility of Ideas** 

TTU THINK TANK RESEARCH UNITS

Management Team Approval

### **INNOVATION TEAM**

From Idea to Prototype

IU INNOVATION RESEARCH UNITS

RU

Management Team Approval

### **APPLIED RESEARCH TEAM**

From Prototype to Product

**RESEARCH UNITS** 

Management Team Approval

### **PRODUCT TEAM**

Production/Regulatory/Marketing



**NEW PRODUCTS** 

\*QA,QC Arterra INCI; CSAR Vitalab



















# ARTERRA POSITION IN RELEVANT MARKETS

### **CONSUMER COSMETICS**



Skin Care, Make-Up, Personal Care & Hair Care consolidated market through Intercos & Vitalab.

# FOOD SUPPLEMENT FOR PATHOLOGY RELATED DISORDERS



Robust discovery platform & extensive natural extracts collection.

### **CROP PROTECTION**



Validated Platform for crop protection related natural compounds discovery.

### **BEAUTY COSMETICS**

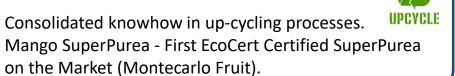
Professional Cosmetic Products for topical application Aestetic Medicine.

New segment of a known market.

Ingredients for topical and injectable products.

New market just started.

### **AGRIFOOD**









# SOURCES FOR ACTIVE INGREDIENT DISCOVERY & DEVELOPMENT

### **BIOTECH BASED**

### **Plant Cell Culture**



### MicroAlgae



**Hairy Roots Culture** 



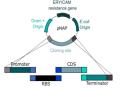
**In Vitro Microgreens** 



### **BIOENGINEERING BASED**

4 New Proprietary Strains of Lactobacillus





PATENT ON GENETIC ELEMENTS for Recombinant Proteins, Peptides production in Lattobacillus Sp.

### **BIOENGINEERING BASED**

## **Molecular Farming**







Vegan Collagen NO GMO

## **HIGH QUALITY EXTRACTS**

Wild Grown Plants Coltivated Mashroom (TCM) Up Cycling Agricultural Waste







# **EXTRACTION PROCEDURE**

### **TRADITIONAL**

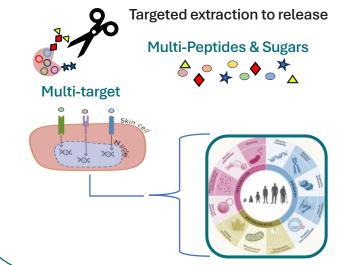


### **HYDROXYPROLINE RICH MULTIPEPTIDES**

Patent: WO 2007/104489 Gabriella Colucci, Fabio Apone, Maarten J. Chrispeels Method for the preparation of a composition based on 4-hydroxyproline

J. Biotechnol., 145(4): 367-376 (2010). A mixture of peptides and sugars derived from plant cell walls increases plant defense responses to stress and attenuates ageing-associated molecular changes in cultured skin cells

Targeted extraction method to selectively release the peptides from cell wall proteins.



# NEWLY INTRODUCED IN HOUSE TECHNOLOGY





High pressure homogenization system

**Biopolymers distruption: PDRN** 





# **EFFICACY EVALUATION PLATFORM**

# IN VITRO MOLECULAR BIOLOGY & CELL BIOLOGY

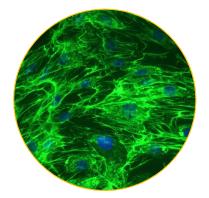
146 assays covering 26 skincare claims

### **EX-VIVO ASSAY**

29 assays covering 10 skincare claims

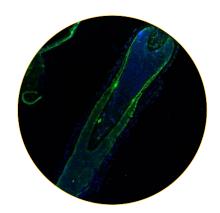
### **SKIN PENETRATION**

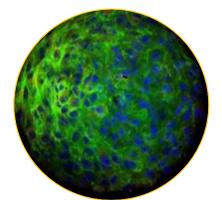
Franz cells using
Strat-M membrane
to follow the penetration

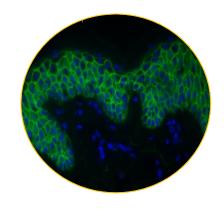


### **FOR HAIRCARE**

20 assays covering 3 haircare claims













# **INNOVATION IN COSMETIC**

## **CONSOLIDATED SEGMENT: SKINCARE & MAKE-UP & HAIRCARE 2024/2025**

2024



2025



- 1. Tito A. *et All* Skin rejuvenating properties of a powerful blend of Gardenia jasminoides peptides and flavonoids.
- 2. HPC Today, 1/2024.
- 3. Di Lorenzo R., *et All* NAD-Driven Sirtuin Activation by Cordyceps sinensis Extract: Exploring the Adaptogenic Potential to Promote Skin Longevity.International Journal of Molecular Sciences , 2024, 25, 4282.
- 4. Tito A, et All Harnessing the biotechnological power of Jasminum sambac: a clinical inquiry into skin radiance and pigmentation control.
- 5. HPC Today, 4/2024.
- 6. Arciello S., et All Exhausted plant cell culture media as potential biostimulants to enhance plant growth and nitrogen use efficiency in tomatoes under optimal and reduced nitrogen supply.
- 7. Journal of Plant Nutrition and Soil Science, 2024; 1-12.
- 8. Falanga D, et All Exploring the adaptogenic potential of cordyceps sinensis to promote skin longevity.
- 9. HPC Today, 6/2024.
- 10. Tito A. *et All* Plantago lanceolata-derived extracellular vesicles: a powerful strategy for skin regeneration. Skin Ageing & Challeneges 2024, Malta.
- 11. Becchimanzi A., *et All* The salivary gland transcriptome of *Varroa destructor* reveals suitable targets for RNAi-based mite control.
- 12. Insect Molecular Biology 2024; 1-12.

- 1. Vitale A., *et All* In vitro cellular model systems provide a promising alternative to animal experiments for studying the intestine-organ axis. Critical Reviews in Biotechnology, 1–18 (2025).
- 2. Russo R., *et All* Phaseolus coccineus Seed: A Valued Resource for Bioactive Compounds Targeting Health and Tumor Cells. Int. J. Mol. Sci. 2025, 26, 2189.
- 3. Ricci L., *et All* Lentinus edodes (Shiitake) extract as a Vitamin D Receptor Activator to Enhance Skin Adaptogenic Responses Journal of Ethnopharmacology under review
- 4. TitoA. *et All* Hyssopus officinalis cell culture extract for support of epidermal barrier function (*provisional title*) Cells Special Issue "Phytofactories: From Lab to Applications" under submission
- 5. Falanga, D. *et All* Effetto migliorativo sull'integrità cutanea di un estratto biotecnologico di Scabiosa arvensis Innovazione in Botanicals *under review*



# **INNOVATION IN COSMETIC**

### **SCIENTIFIC MEETINGS**





- 1. 3rd International Summer School on Science based formulation, 1-3 July 2024. Fiorella Nugnes
- 2. 18<sup>th</sup> Naples workshop on Bioactive Peptides Peptides in the nativity November 28-30 2024 Antonio Colantuono: Bioactive peptides hydrolysates in beauty industry: sources, chemical characterization and biological properties (oral presentation)
- 3. Genome editing practical course 6-9 May 2024 Ceinge Napoli Chiara Niespolo Cosmetotest 29-30 May virtual participation
- 4. Skin ageing & challenges 2024 Malta November 5-6 2024 Annalisa Tito: Plantago lanceolata-derived extracellular vesicles: strategies for skin regeneration (oral presentation)
- 5. Workshop Oltre i limiti del microscopio. Assunta Tortora e Adrian De Lucia. 21-23 maggio 2024 Ceinge Napoli

## 2025



- 8th international conference on microbial diversity. 23-26 september 2025.
   Martina Parziale: Development of probiotics and post-biotics for the modulation of skin microbiome
- 2. Comet 2025 22-23 January 2025.
- 3. XXXIInd Skin Science days Febraury 5-6 2025
- 4. TRI Princeton Hair Test 2025
- 5. Workshop IVTech 5D in vitro models 16-17 January 2025 Alessandra Vitale e Adriana De Lucia
- Phytofactories 2025 18-20 June 2025. Annamaria Cifariello: *Hyssopus officinalis* cell culture as new source of metabolites for skin care application
- Annalisa Tito: Coffea bengalensis-derived extracellular vesicles: micro-RNA mediated modulation of skin inflammation and neuron communication IFSCC2025 15-18 September 2025
- Stefania Arciello: Using Lettuce to Produce Collagen Peptides: A Novel Biotechnological Approach for Enhancing Skin Structure IFSCC2025 15-18 September 2025
- 9. Evita 2025 24-26 September 2025 Extracellular vesicles derived from L. sativa seedlings promote skin regeneration and contrast inflammation: an in vitro study.





# **INNOVATION IN COSMETIC**





### **2025** Patent examinations

- Domanda di brevetto internazionale PCT/EP2024/074175: Use of plantderived extracts forhair growth stimulation and cosmetic or pharmaceutical compositions containing such extracts for said use.
   Titolarità Vitalab S.r.I.
- Domanda di brevetto italiano n. 10202400002981: Estratto derivato da colture cellulari appartenenti alla specie Hyssopus officinalis, e relativo metodo di preparazione, composizioni cosmetiche contenenti tale estratto e uso di detto estratto e di dette composizioni per la cura della pelle. Titolarità Vitalab S.r.l.
- Domanda di brevetto internazionale PCT del brevetto italiano n. 10202400002981: Estratto derivato da colture cellulari appartenenti alla specie Hyssopus officinalis, e relativo metodo di preparazione, composizioni cosmetiche contenenti tale estratto e uso di detto estratto e di dette composizioni per la cura della pelle. Titolarità Vitalab S.r.l.

- Domanda di brevetto italiano n.102023000017877: Uso di estratti di origine vegetale per la stimolazione della crescita dei capelli e composizioni cosmetiche o farmaceutiche contenenti tali estratti.
   Titolarità Vitalab S.r.l.
- Domanda di brevetto italiano n. 102023000028383: Ceppi di lattobacilli isolati da latte di bufala crudo e da formaggio pecorino sardo D.O.P. e processo per la produzione di molecole biologiche tramite l'utilizzo di detti ceppi di lattobacilli. **Titolarità Arterra Bioscience S.p.A.**









# 2024/2025 - 6 NEW catalogue products on the market



Vita PeptiBloom

Peonia suffructicosa
plant cell cultures



NC75 Vita TechCollagen
Human Recombinant Collagen
produced in *Lactuga sativa* 



Vita NiaCeraMine

Hyssopus Officinalis plant cell cultures



NC77 Vita Vinea

Vitis Vinifera plant cell cultures



Exosome-based active ingredient from *Plantago lanceolata* plant cell cultures



NC 78 Vita Sculptis

Helichrysum italicum plant cell cultures







## 2025 EXCLUSIVE DEVELOPMENT FOR:



n. **3** Exclusive Active Ingredients





n. **1** Exclusive Active Ingredients



n. 1 Exclusive Active Ingredients





# REGULATORY ACHIEVEMENTS

China State Council released the final version of CSAR on 01 January 2021 and replaced the existing Cosmetics Hygiene Supervision Regulations

China's new cosmetics regulation include many changes:

- New cosmetic definitions, scope and classifications
- Management of new cosmetic ingredients
- Addition of efficacy claims requirements
- Safety assessments for cosmetic products and requirements for safety assessors





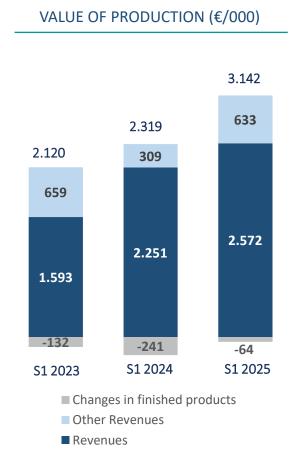
All Portfolio of Active Ingredients are now CSAR-compliant

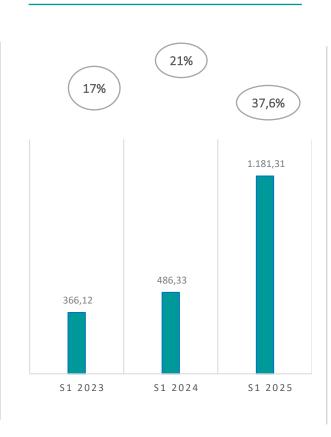




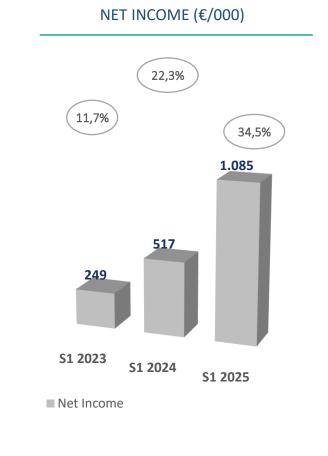


# **ECONOMIC RESULTS AS OF JUNE 30, 2025**





EBITDA (€/000)





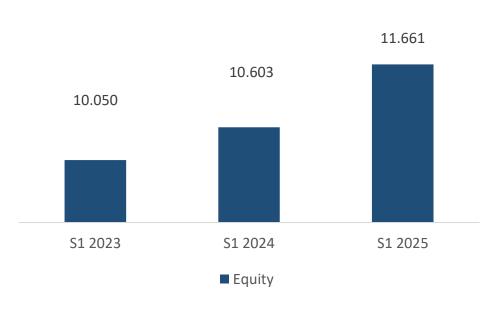


# NO DEBT / EQUITY

# NET DEBT (€/000)

	S1 2023	S1 2024	S1 2025
Cash and Cash Equivalents	(4.337)	(3.427)	(3.442)
Current Financial Receivables	-	-	-
Financial assets other than fixed			
assets	(1.201)	(2.472)	(2.573)
Current Financial Debt	136	43	49
Current Net Debt	(5.402)	(5.856)	(5.968)
Long term Financial Receivables	1.201	2.472	2.573
Long term Financial Debt	260	300	260
Net Debt (Cash)	(5.016)	(5.556)	(5.707)
*including credits from grants	(6.190)	(6.608)	(6.929)

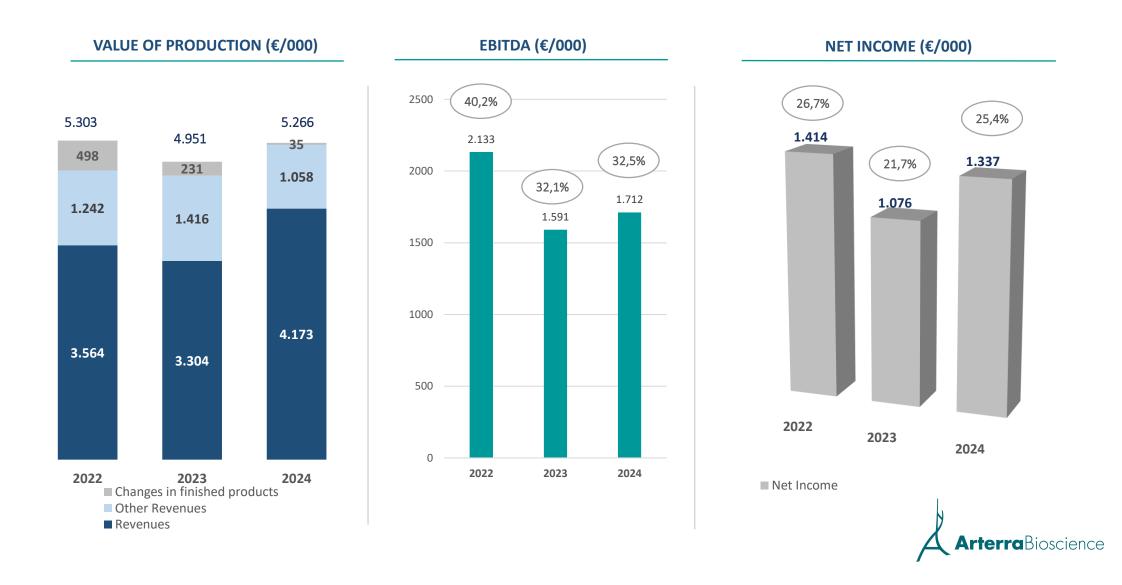
# EQUITY (€/000)







# **ECONOMIC RESULTS AS OF DECEMBER 31, 2024**



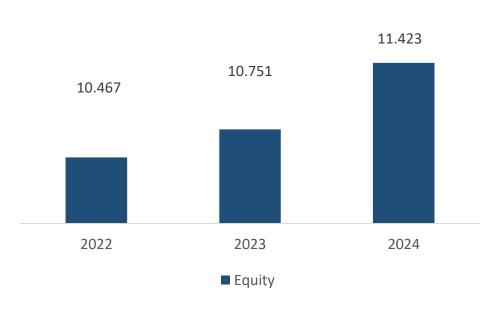




# **NET DEBT (€/000)**

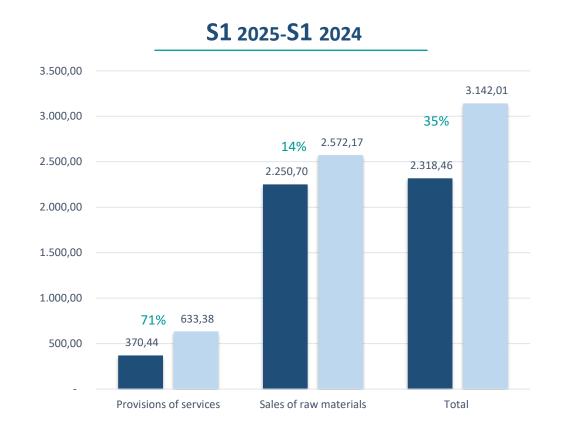
	2022	2023	2024
Cash and Cash Equivalents	(4.393)	(3.686)	(3.343)
Current Financial Receivables	-	-	-
Financial assets other than fixed			
assets	(1.598)		
Current Financial Debt	174	86	96
<b>Current Net Debt</b>	(5.817)	(3.599)	(3.247)
Long term Financial Receivables	-	2.372	2.422
Long term Financial Debt	315	299	260
Net Debt (Cash)	(5.502)	(5.672)	(5.409)
*including credits from grants	(6.406)	(6.488)	(6.864)

# **EQUITY (€/000)**





# **REVENUE COMPARISON - H1 2025 vs H1 2024**



### S1 2025 vs S1 2024

Total turnover increased by **35.5**% compared to the first semester of 2024.

The main driver of this growth was the sale of cosmetic raw materials, which rose by 14.3% (from €2,250,697 to €2,572,169). Additionally, Arterra Bioscience strengthened its research collaborations, leading to a 71% increase in revenues from provision of services (from €370,441 to €633,383).

Overall, total revenues grew from €2,318,455 to €3,142,012.



