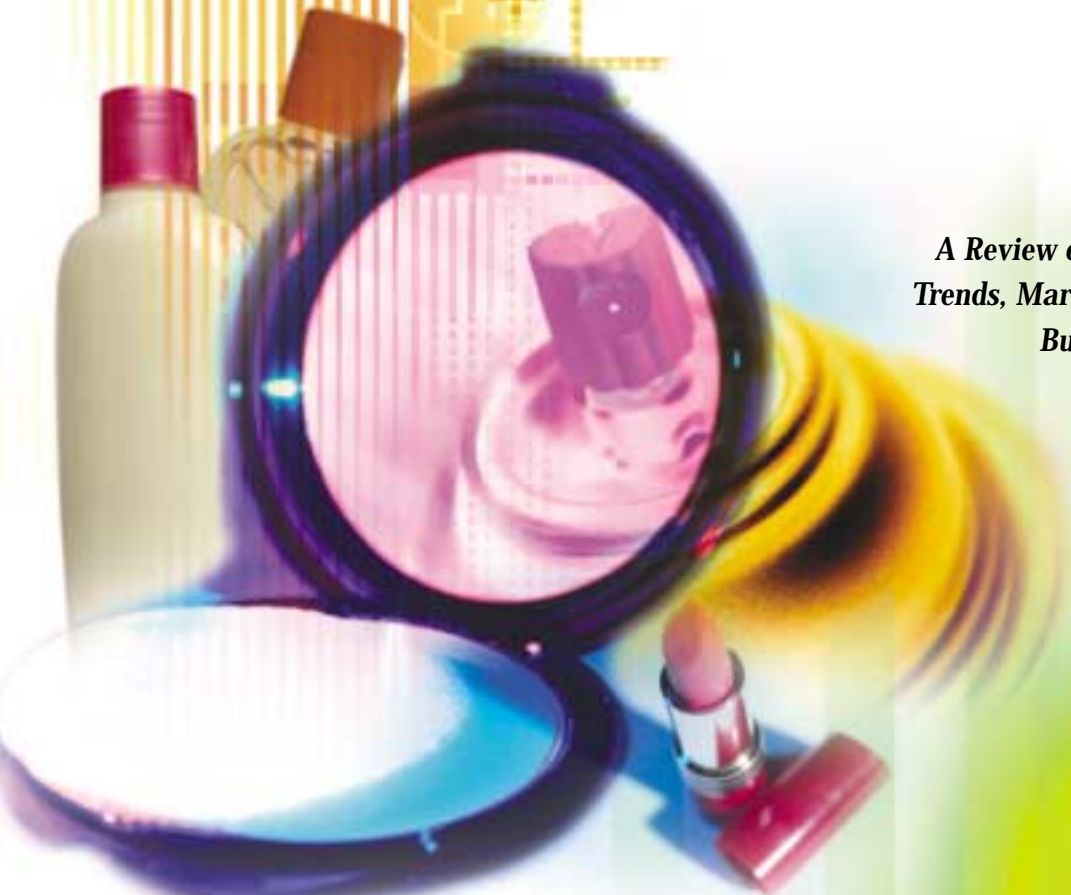


# Cosmeceutical Trends and Technologies

*A Review of Global Technology  
Trends, Market Information, and  
Business Opportunities*



# The Report

Cosmeceutical products are those poised on the gap between cosmetic products that simply cleanse and beautify, and pharmaceuticals that cure and heal.

Generally, cosmeceuticals are products sold over-the-counter that provide a health benefit in addition to traditional cosmetic qualities. Healthy growth in the cosmeceuticals market worldwide is primarily attributed to the aging baby boomer generation in the United States and an increase in disposable income in Asia and South America. Technological innovations will continue to drive growth in the market.

The cosmeceuticals market, including skin care, hair care, and sun care products, is highly diversified, with products coming both from major manufacturers and small, local companies around the world. Cosmeceutical products can be purchased from mass market and direct marketing retailers as well as from prestige retailers including increasingly popular “spas.” The cosmeceutical consumer is becoming more sophisticated, demanding exceptional quality from these products, and technological innovations will have to keep up with this demand.

Innovations in cosmeceutical products over the next few years will come primarily in the following areas:

- Proof of efficacy of ingredients, particularly natural extracts, will become more important because consumers have a wide variety of choices and will discontinue use of ineffective products
- Natural products and extracts will continue to replace chemical materials, and plants and fermentation will increasingly replace animals as ingredient sources
- Delivery systems will be more complex and effective, offering triggered and controlled release of actives, and the research and development of nanostructure delivery systems will continue
- Sunscreen actives will be increasingly present in daily wear products and new actives will offer broad-spectrum UV coverage and/or higher sun protection factors
- Regulation of cosmetic and drug products will be harmonized globally, particularly between North America, the European Union, and Japan

Technology Catalysts' Consumer Care research and business strategy staff has completed an extensive analysis of the technologies representing the next-generation ingredients, formulations, and delivery systems for cosmeceuticals. They have identified business opportunities in the cosmeceutical segment of the cosmetic and toiletries industry via personal interviews with inventors, companies, and organizations around the world.

**Cosmeceutical Trends & Technologies (Third Edition)** outlines “state-of-the-art” cosmeceutical technologies and examines niche opportunities from a technological viewpoint. The report is ideal for companies searching for global business opportunities to expand and differentiate their products.

# The Company

Technology Catalysts International was founded in 1979 to provide consulting services which satisfy the technology transfer and business research needs of industry. Today we specialize in technology transfer, technology assessment, and intellectual property portfolio management. The firm's head office is located in Falls Church, Virginia, a suburb of Washington, D.C. Our global network includes additional offices in Japan, Korea, India, China, Argentina, United Kingdom, Germany, Italy, and the Czech Republic.

Our research staff is comprised of professionals with backgrounds in a variety of technical disciplines, international marketing, licensing, finance, and business development. They are skilled in providing clients with strategically important competitive information worldwide. The breadth of our

experience assures clients of high quality, actionable information and complete coverage on topics of interest.

TCI's core consulting services are based on continuous monitoring of technological and product development activities on a global basis. The company provides consulting and technology transfer services to leading product developers and manufacturers in North and South America, Europe, and Asia. Our client base consists of small, medium, and large corporations.

For more information on our services and capabilities, please contact your local representative or visit our website at:

[www.technology-catalysts.com](http://www.technology-catalysts.com)

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**Business Opportunities from the following companies, organizations, and inventors are included in the report.**

Agrotechnological Research Institute  
ATO BV  
Ajinomoto Co., Inc.  
Alnis BioSciences Inc.  
AlphaMed Pharmaceuticals  
Arizona Natural Resources  
Barnet Products Corporation  
BioActives  
BioArtificial Gel Technologies, Inc.  
Biophysica, Inc.  
Biotec Pharmacon Asa  
Capsulation NanoScience AG  
CBB Developpement  
Dija Zeist bv  
Enhanced Derm Technologies  
Esparma GmbH  
Estrin Consulting Group, Inc.  
Ghisalberti Green Technologies  
Hamilton Laboratories  
IntegriDerm, Inc.  
Ivrea, Inc.  
I.B.R. Israeli Biotechnology Research  
IPR – Institute for Pharmaceutical  
Research AG  
Joao Carlos Mota  
Khodor Ammar  
Laboratory Skin Care, Inc.  
Larreacorp, Ltd.  
Lavipharm Laboratories  
Leslie Robert M.D., Ph.D.  
MIKA Pharma GmbH

Molecular Design International, Inc.  
Murad, Inc.  
NanoBioTec GmbH  
Pacific Corporation  
Protective Factors, Inc.  
Provital S.A.  
Pugliese Group  
Rejuvana International  
Salvona, LLC  
SCS Skin Care Systems GmbH  
Seoul National University  
Sol-Gel Technologies Ltd.  
Sunlife Cosmetic and Pharmaceutical  
Corporation  
Swedish Skin Care, Inc.  
Thione International  
Thomas Jefferson University

Ultra Cosmetics  
Univera Pharmaceuticals, Inc.  
Universita di Ferrara  
Universita di Roma "La Sapienza"  
University of Bologna  
University of Geneva  
University of Mumbai  
University of North Carolina at  
Chapel Hill  
University of Pennsylvania  
U.S. Department of Agriculture – ARS  
Van Drunen Farms and FutureCeuticals  
Vitacos Corporation  
Young Pharmaceuticals, Inc.  
Zen-Bio, Inc.

**Ghisalberti Green Technologies**  
Skin Depigmenting Composition

**TECHNOLOGY DESCRIPTION**  
Reseachers have found that 3-hydroxy-4-pyridone derivatives have utility as multi-purpose skin whiteners. The compounds exhibit melanin inhibition at different levels of activity according to their structure and the compounds are uniquely capable of affording effective treatment of persistent spots due to extravasation and traumatic hyperpigmentation. In combination with 3-hydroxy-4-pyridone derivatives, effective compositions also contain exfoliating agents, such as alpha hydroxy acids, additional depigmenting agents, and anti-inflammatory agents.

**APPLICATIONS**  
The technology can be used for ethnic skin bleaching and treatment of melasma, cholasma and hemosiderin spots.

**TECHNOLOGY OFFER**  
The technology is available for license or purchase.

**PATENTS/PUBLICATIONS**  
World Publication No. 01/749,311 (September 2000)

**DEVELOPMENT STAGES**  
Preliminary clinical testing has been conducted, with the novel composition achieving complete spot removal via a one-shot, peel-like treatment.

**COMPETITIVE ADVANTAGE**  
The composition is a viable alternative to hydroquinone, and does not have toxic side-effects, with good activity and an excellent toxicology profile.

**COMPANY INFORMATION**  
Ghisalberti Green technologies is a small, independent R&D enterprise focused on development of new compounds, materials, technologies, and manufacturing methods for natural and natural-like substances. The company has patented a variety of novel technologies including pigments from plant polyphenols, plant polyphenol applications, biologically-active lipids, and dermocosmetic molecules. They are interested in finding certified manufacturers in the pharmaceutical, nutritional, food, and cosmetic industries to license and commercialize the technologies.

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**SAMPLE OPPORTUNITY**

