

Knowing how the products you use are formulated can have a big impact on your day spa.

# In the Mix

By Austine Mah



**AS A DAY SPA OWNER,** you're the decision-making force behind your business. One of the most important decisions you'll make is that of the products your spa will use.

It's difficult to overstate the importance of the products you use in your treatment rooms and sell on your retail shelves—the choices you make can, ultimately, determine the success or failure of your business. That's why, with ever-advancing science playing a role in skincare products, it's important for you to understand the process of developing new products. Industry cosmetic chemists have given us a quick look at the science behind today's advanced formulations, as well as at some of the more exciting ingredient developments we're likely to see soon.

### New Developments

Advances in science and in our knowledge of the human body have had, and continue to have, a tremendous effect on the development of new cosmetic science and technology. One prime example is the Human Genome Project (HGP), a 13-year program sponsored by the U.S. Department of Energy and the National Institutes of Health, and completed in April 2003, with publication of final papers in May 2006. HGP was designed to “identify all the approximately 20,000 to 25,000 genes in human DNA, determine the sequences of the 3 billion chemical base pairs that make up human DNA, store this information in databases, improve tools for data analysis, transfer related technologies to the private sector, and address the ethical, legal and social issues that may arise from the project.” (For more information visit [www.ornl.gov/sci/techresources/Human\\_Genome/home.shtml](http://www.ornl.gov/sci/techresources/Human_Genome/home.shtml)). “In the near future we’ll be

able to communicate with specific cells, allowing us to influence particular cells in the skin,” says Rebecca James Gadberry, president and chairman of the board at YG Laboratories, Huntington Beach, California. “This technology has come about as a direct result of the Human Genome Project.”

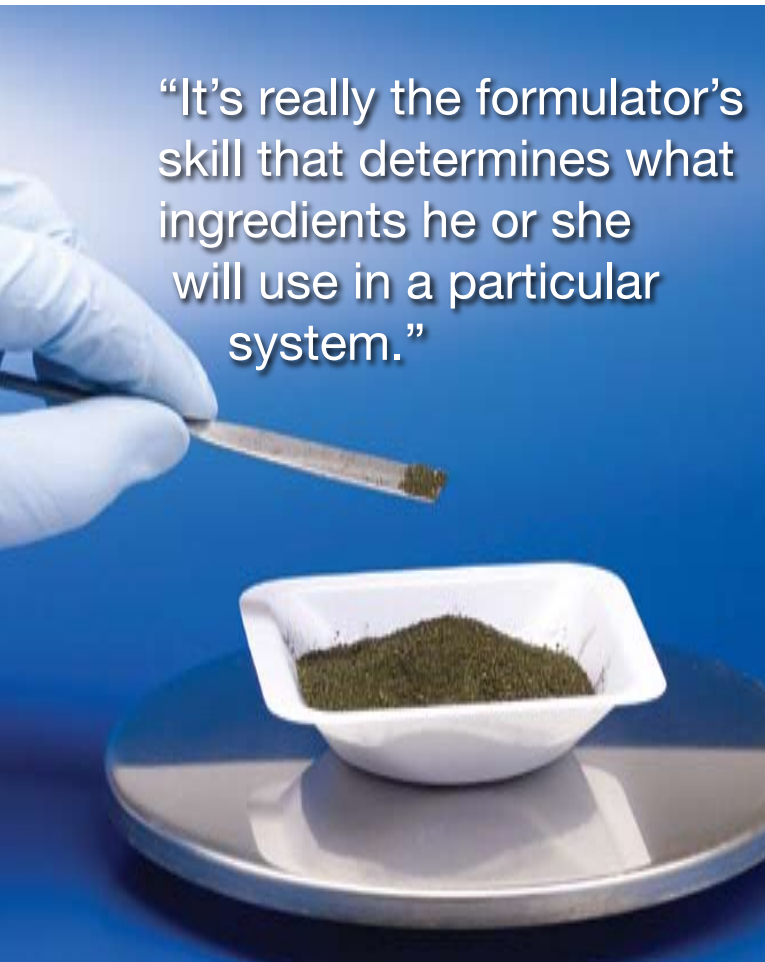
As a team of cosmetic chemists and product formulators examines these developments with an eye toward their use in cosmetics, one of the first formulating tasks becomes identifying new, cutting-edge ingredients and trends about to hit the market. With the conclusion of the Human Genome Project, for example, a wealth of new information about our genes and the proteins they produce has begun to influence cosmetic science and, in particular, ingredient technology.

The composition of the formulation team and the dynamics among its members play a large role in the creativity of the skincare products it ultimately produces. “The difference between one cosmetic laboratory and another is the competence of the [cosmetic] chemist and the product development team,” says William Ahrens, product development manager, Your Name Professional Brands, Long Island City, New York. “They must work in synergy to master new scientific breakthroughs and understand the compatibilities of multiple ingredients.” Bob Posner, founder of ABBE Laboratories in Farmingdale, New York, agrees. “It’s really the formulator’s skill that determines what ingredients he or she will use and what the supporting cast of ingredients will be in a particular system,” he says.

During development, some frequently asked questions by cosmetic product development teams might include:

- How can a new, cutting-edge ingredient/technology be described?
- What are the ingredient/technology’s properties and applications? How does it work, and in what manner?
- What are its composition and specifications?
- What do efficacy tests show, and who performed these tests?
- What is the recommended concentration?
- What is its toxicological profile?

Active ingredients are important, but during the creation process, formulators must consider a product as a whole rather than as simply a vehicle for a single ingredient. Formulators must consider how to



“It’s really the formulator’s skill that determines what ingredients he or she will use in a particular system.”

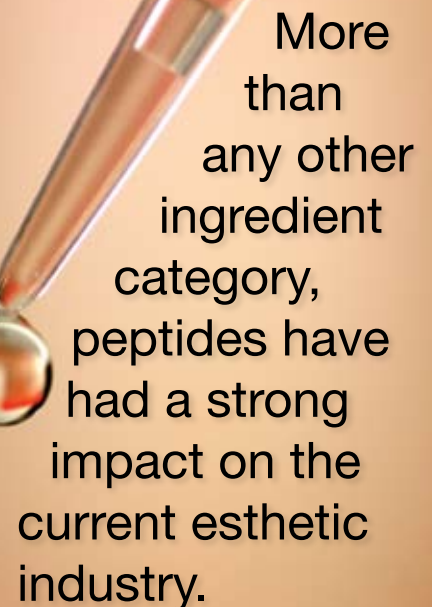
[In the Mix]

ensure that a key ingredient is able to perform its action in the final product formulation, and how to keep an active ingredient stable for a long period of time. In essence, say the experts, all ingredients are only as good as the end formulation. “One ingredient alone is never a good platform to deliver benefits,” notes Ahrens. “It’s the base of the product, the texture and package, that together as a system ensure the most benefits from a well-thought-out product.”

Creating a new formulation, believes Gadberry, is essentially somewhat of an art. “We’re held back only by our own imaginations,” she says.

### Rising Stars

That said, there are several new key ingredients on the skincare horizon poised to take their places in synergistic, scientific formulas. More than any other ingredient category, peptides have had a strong impact on the current esthetic industry. “An appeal for



More than any other ingredient category, peptides have had a strong impact on the current esthetic industry.

a more youthful look in a more natural way is one reason peptides are so popular,” says Kathy Copeland, director of communications for Colorlab Cosmetics, Rockford, Illinois. Thanks to their strength in antiaging benefits, they’re likely to stay a strong category. “Peptides will be to the future of skin care what alpha hydroxy acids were to the skin care of the 1990s,” says Melanie Dean-Valdez, director of marketing and product training for CBI

## Questions of Quality

You don’t formulate your own products—you leave that to the professionals—so you might wonder why it’s important to know how new products are created.

The answer is simple: It allows you to trust that the quality, safety, stability and efficacy of the products a manufacturer sells—and that will be used and sold in your business—will be consistent.

To maintain that trust, keep an open dialogue with the manufacturers of the products you regularly use, and ask questions, such as:

- What ingredients are used in addition to a new, cutting-edge ingredient? How do these affect the ingredient’s results or its delivery?
- Does the new ingredient/formula have

the potential to cause skin irritation or sensitivity, allergic reactions or sun sensitivity when used at certain levels or in certain individuals?

- What tests have been performed for efficacy and stability? Have dermatologists and/or ophthalmologists tested the products, and what were the results?
- Has there been any consumer or scientific press on the new ingredient/formula?

Questions like these can help you better understand the products you use and sell, and with that understanding will come a greater belief in their efficacy. It’s this belief that will allow you and your staff to promote them with confidence to your clients.

Laboratories, Fort Worth, Texas.

“Since genes form the parts of our blueprint to make proteins in our bodies, findings from the Human Genome Project have contributed to the explosion in proteomics—the scientific study of proteins,” explains Gadberry. “This deeper understanding of proteins has led to the flood of peptides and new, highly effective protein ingredients we’re now seeing in skin care. The industry saw the

applications for rosacea, acne, skin lightening and nontraditional preservative systems.”

According to Posner, one of the many new peptide ingredients cosmetic chemists have identified is **Eyeseryl**, or acetyl tetrapeptide-5. This cutting-edge ingredient is specifically designed for reducing edema, or fluid buildup, in the eye area due to poor lymphatic circulation and increased capillary permeability.

Eyeseryl has been clinically shown to reduce the appearance of puffy eye bags in as few as 15 days. It’s best used in emulsion and gel formulas, and the manufacturer recommends it at a strength of 3% to 10% in the final formulation to get the full benefit of its eye bag-reduction action.

**SNAP-8**, or acetyl glutamyl heptapeptide-3, is another new peptide ingredient that delivers Botox-like benefits, says Dean-Valdez. SNAP-8 is an elongation of the famous hexapeptide Argireline, and it reduces the depth of wrinkles on the face caused by facial muscle contraction, particularly on the forehead and in the areas around the eyes. This octapeptide has been clinically shown in studies to be about 30% more active than Argireline. As with Eyeseryl, SNAP-8 is best in emulsions and gels at a 3% to 10% strength for anti-wrinkle activity.

Although peptides dominate the new-ingredient wish lists of most formulators, there are other ingredients moving toward the top. Posner gives as an example **Hydromanil**, a moisturizer/humectant, that acts in two ways on the stratum corneum: It provides an instant and long-lasting improvement of moisture levels,



Good partnerships always provide the best results.

initial introduction of peptides with Matrixyl, the trade name for palmitoyl pentapeptide-4. Since then, virtually all peptides introduced into the market have addressed the subject of aging skin. However, in the research and development lab, new peptide uses are being explored, including

[In the Mix]

and regulates the exfoliation that improves the skin's appearance. Clinical studies show marked increases in skin smoothness and moisturization after 22 days of use. Hydromanil can be used in any moisturizing formulation, from shower gels and body milks to hand creams and hair products.

Soothing, anti-inflammatory ingredients are popular among formulators and skincare clients alike. One of the newest, according to Laura Root, esthetician, CIDESCO diplomate and author of *The Skincare Professional's Chemistry and Ingredient Handbook*, is **EquiStat**, a combination of apple and soybean extracts designed to boost collagen and serve as an anti-inflammatory ingredient in all types of products, including makeup. The combination works to prevent the breakdown of the skin matrix, making it appropriate in antiaging formulations as well. Clinical studies have shown that, after four weeks of use of a 1.25% concentration, 90% of subjects saw an improvement in wrinkle condition. Researchers found that, among subjects showing improvements, the number of wrinkles was reduced by 19%, wrinkle depth was reduced by 25% and skin roughness was reduced by 45%.

Delivery systems are vital to getting these new ingredients where they're needed, adds Posner, and there have been some developments on this front. **Tegospheres** are a new intelligent delivery system consisting of microcapsules that respond to the skin's natural pH. The shell material of Tegospheres consists of a copolymer that begins to disintegrate and swell at pH 5, becoming permeable and allowing ingredients to pass through.



Soothing,  
anti-inflammatory  
ingredients are  
popular among  
formulators and  
skincare  
clients alike.

Several ingredients are already using this technology: **Tegosphere Vita** is an encapsulated retinol. The new delivery system allows minimal diffusion and maximum stability of the retinol, making it highly effective on the skin.

Your success as a day spa is, in part, dependent on a product manufacturer's success in formulating and creating a finished product that does what it says it will do. At the same time, a manufacturer's success is, in part, dependent on how effective clients perceive your day spa services to be. Whether it's a mix of ingredients and bases in a formula or a relationship between a day spa and a product line, good partnerships always provide the best results. ●

**Austine Mah** is a Los Angeles-based esthetician, an ITEC beauty consultant and a CIDESCO candidate. She can be reached through her website at [www.austinemah.com](http://www.austinemah.com).