



New Genetic Research: Technologies That Help Your Hair

(NAPSA)—People spend billions of dollars each year on dyes, shampoos and styling products in an attempt to get the kind of hair they weren't born with—and the science community is listening seriously.

Now, using genetic research, hair care technology is going where dyes and shampoos have never gone before to improve hair health and appearance.

Recently, scientists, researchers, and hair care clinicians from all over the world gathered at the Oxford Hair Foundation (OHF) conference in London to report on breakthrough discoveries that could mean the end of bad hair days forever.

“Our hair characteristics are genetically pre-determined,” said Procter & Gamble Beauty scientist Lauren Thaman Hodges. “Understanding genetics and biology and the role DNA plays in dictating the color, condition and health of hair gives us a powerful tool to further explore the science of altering our physical appearance.”

Detailing breakthroughs in hair biology, leading global hair researchers discussed how genetic research is radically changing hair care technology.

No more gray days

What if you could go blonde for a day or stop the gray permanently without using dyes? These options are increasingly rooted in reality. As a person ages, individual hairs turn gray or white when their cells stop producing natural color. Current research is working to identify the biological “on/off” switch so graying can be stopped or even reversed.

Although this is successful in lab experiments, consumers will have to wait for products like these until scientists determine how to consistently pinpoint only hair cells to safely restore pigmentation.

New discoveries bring back healthy hair and color

No matter what we do, hair seems to lose its color and shine over the years, and P&G Beauty scientists think they know why—and how to reverse the trend. They have discovered “EDDS,” a molecule dubbed the “copper blocker.” Tap water contains copper, which over time can leave hair dry and



brittle. EDDS, which helps prevent copper damage, is being used in some of the company's hair care products to enhance color and condition by limiting the damage caused by copper.

Scientists have also identified a method of replacing three essential amino acids in the hair that are lost through everyday wear and tear. Amino acids are the building blocks of protein, from which hair is created. “A real advancement would be a daily shampoo that replenishes those lost amino acids,” says Dr. John Gray, an OHF board director.

Genes shed light on flaky problem

Dandruff affects at least 45 percent of the world's population at some time in their lives and is the most widespread condition apart from the common cold. Fungi have been the suspected cause for more than 100 years, but no one was able to pinpoint the specific triggers for dandruff. Recently, P&G scientists changed that, identifying the exact microorganism that causes dandruff by tracking its genetic code.

Discovering the species responsible for dandruff has opened the doors for genetic studies of other fungal diseases that may be fatal to those with suppressed immune systems. The research and techniques used may also lead to finding magic bullet cures for other fungal disorders.

As Chris Gummer, a P&G scientist explains, these better technologies can give people more than just healthier hair. “It will give people freedom of choice over their hair.”

For more information, visit www.oxfordhairfoundation.org.