

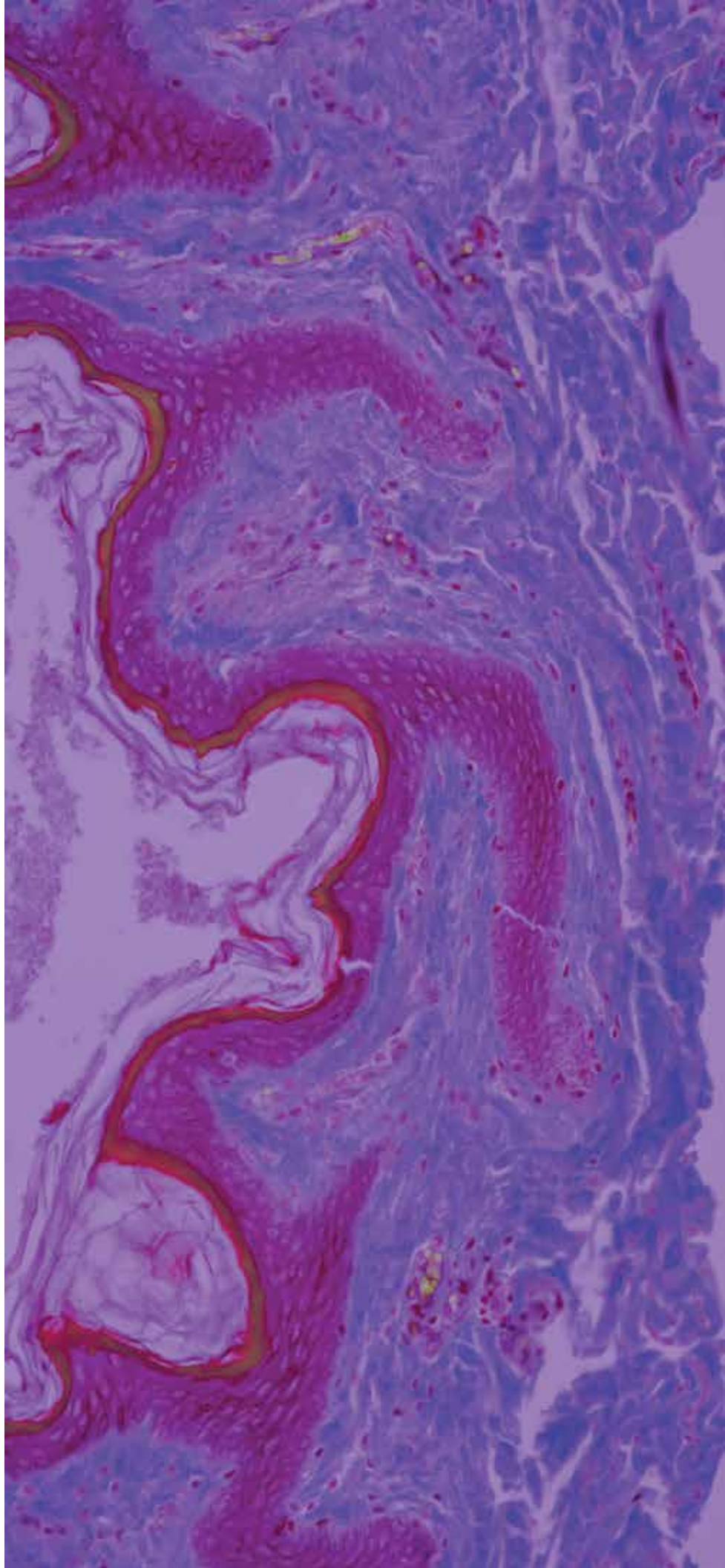
Getting macro on the scalp microbiome and how its components can live in harmony.

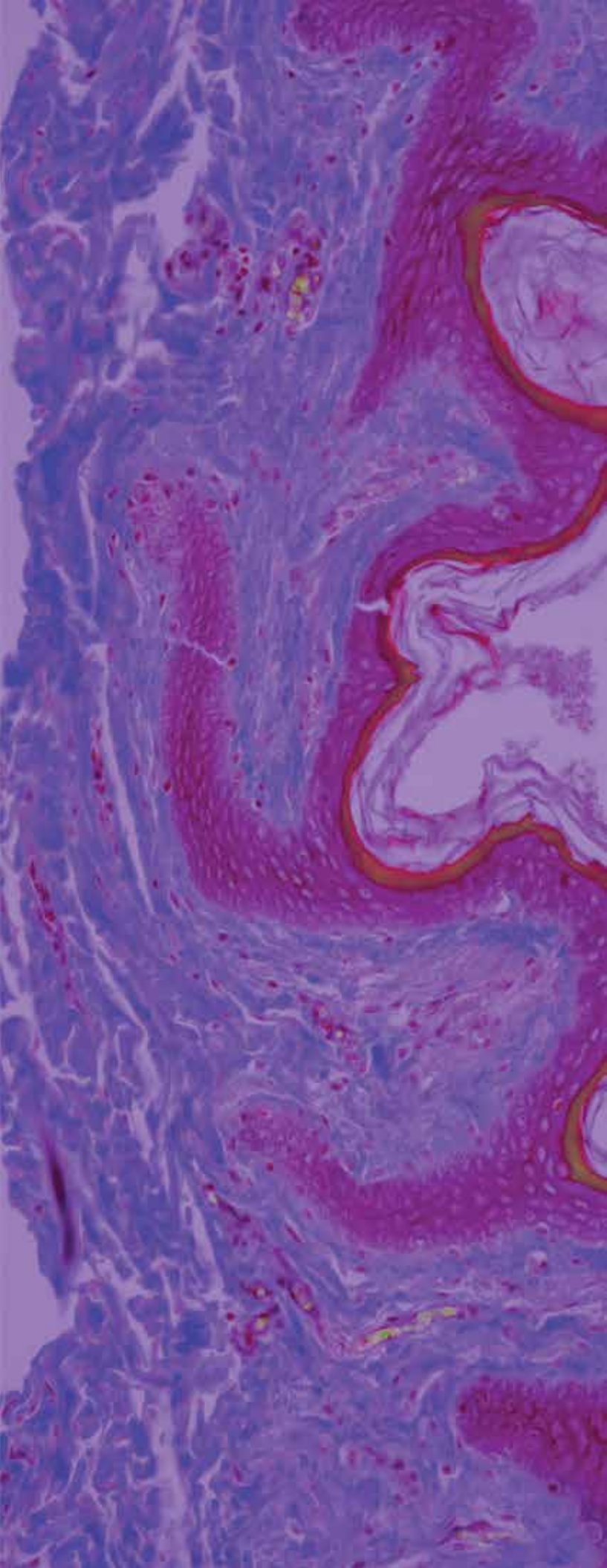
Scalp

Symbiosis

By
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The microbiome

THE SCALP MICROBIOME REFERS TO THE SURFACE OF THE SCALP, which comprises good and bad bacteria, its own unique pH balance, a protective layer known as the acid mantle, and skin cells, says New York trichologist Shab Caspara, founder of hair growth platform for women, leona.co. "Similar to the gut microbiome, the scalp microbiome plays a critical role, helping to regulate the scalp environment, which affects everything from hair growth to scalp health," explains New York dermatologist Michelle Henry, MD.

"This microbial community acts as a defense system to shield hair follicles from potential threats such as irritation, toxins, infections, and damage," says Miami dermatologist Dr. Deborah Longwill. Ultimately, a well-balanced microbiome "can help protect against pathogens, reduce inflammation, and even change sebum production," adds Dr. Henry.

Throwing off the microbiome

THE DELICATE BALANCE OF THE SCALP MICROBIOME can be thrown off by many things. Some are in our control; others are just out of reach. Caspara says, "Harsh cleansing agents in shampoos, improper and infrequent shampooing, an accumulation of scalp build-up, environmental debris, dry heat, sensitizing ingredients like concentrated essential oils, and even diet can negatively impact the microbiome's pH."

The microbiome is sensitive, and even slight changes to its status quo can trigger noticeable differences in your hair. Certain medications like antibiotics, poor nutrition, pollution, extreme weather, UV damage, and hormonal changes, especially during pregnancy or menopause, can disrupt the balance, explains Dr. Henry. Other little things like washing your hair too often, high stress levels, environmental changes, and tight ponytails can also throw things out of whack, says Dr. Longwill.

When something goes wrong

Maintaining the microbiome

AN OFF-KILTER SCALP MICROBIOME IS NO JOKE. "As a defense mechanism, an imbalanced microbiome can overproduce sebum and lead to irritation and inflammation or scalp conditions like seborrheic dermatitis and psoriasis," says Caspara. Signs of an unhealthy microbiome include oily hair the same day you wash it; a sensitive, itchy, smelly scalp; redness; flaking; and a tight, dry scalp. Dr. Longwill warns that hair loss, hair thinning and decreased hair growth can occur in the wake of an imbalanced microbiome. "This imbalance can impact the appearance of the hair, causing it to look dull and damaged," New York dermatologist **Jody Levine, MD** explains. Like probiotics can be used in the gut to promote a healthy GI system, there's a unique interaction between good skin flora and bad skin flora in the hair follicle that can promote or limit scalp inflammation, says Fort Lauderdale, FL dermatologist Dr. Matthew Elias.

BECAUSE THE MICROBIOME IS SO FICKLE, it's important to maintain homeostasis as best you can so your scalp and hair stay healthy and happy. Avoid doing the actions known to throw off the microbiome and opt for gentle, regular hair washing, a balanced diet, hydration, stress management, and sun protection, suggests Dr. Longwill. She also recommends taking probiotics and prebiotics, avoiding excessive heat tool use and getting regular haircuts. Dr. Henry says supplements like Nutrafol can be helpful too, as they contain ingredients to support a healthy scalp.

"Given the significant influence of genetics, lifestyle and overall health, individuals may experience diverse reactions to the state of their hair microbiome, varying between those with a healthy microbiome and those with an unhealthy one," Dr. Longwill says. "I highly advise individuals facing persistent hair or scalp issues to consult with a local dermatologist. Seeking professional guidance ensures a thorough understanding of the root cause of their issues and facilitates the creation of a personalized and effective treatment plan."

Did You Know?

"The scalp microbiome is unique to each individual, much like a fingerprint," says **Dr. Levine**. "Factors such as genetics, age and overall health contribute to its specific composition." The understanding of this uniqueness guides board-certified dermatologists to develop personalized hair-care routines for optimal scalp health for each patient."

Scalp Solutions

Try these scalp health-boosting products to bring your microbiome back to homeostasis.



The Rootist Clarify Balancing Serum for Oily Scalp

An oily-scalp solution for those with a messed-up microbiome comes in the form of this salicylic acid-based leave-in serum. It helps to reduce excess oil, refresh the scalp and soothe irritation. \$48, therootist.com

Nécessaire The Rosemary Shampoo

If your out-of-whack microbiome is affecting the fullness of your hair, this shampoo is one to try. Formulated with pure rosemary oil, a micro-dose of Capixil, proteins, peptides, and ceramides, it supports the scalp and strengthens hair. \$28, necessaire.com



Squigs Squiggly Neem Comb

Not only is this wooden comb great for distributing product throughout the hair, but it's also designed to massage the scalp and increase blood circulation. Neem is an ancient Ayurvedic wood that works to detoxify the scalp and prevent dandruff and hair breakage.

\$12, squigsbeauty.com

Dove Scalp+Hair Therapy Clarifying Foaming Scrub

Just like our skin sometimes needs a good scrub, so does our scalp. This physical exfoliant removes oil buildup, dirt, sebum, and lingering product. Whether you have a dry scalp and want to get rid of flaking or an oily scalp that you want to dry up, this scrub is up to the task. \$10, dove.com

