

Co-editors' Messages

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Each issue of the *Forum* requires the co-editors to write on a topic of our choice, and I must say that for this issue I struggled to come up with something. For the first time, I experienced writer's block! The deadline came and I was asked to submit my editorial, so I finally sat down to write this and it turns out that when the pressure was on, I had too many topics. But then the decision had to be made: Should I write about the latest regulations that are about to

be forced on those in private cosmetic practices? Or should I write about a recent complication that we had in an FUE procedure? How about recent cases of scalp necrosis that have been referred to us? But as spring is on the horizon in the Northern Hemisphere (I hope), I decided to leave these topics until another issue and discuss something more positive: educational opportunities in the upcoming months. This year seems to be particularly full of ISHRS sponsored workshops each with different themes. So if you want to learn more about female hair restoration, FUE

techniques, strip surgery, hairline design, and eyebrows and eyelashes, then there is a workshop for you. In addition, there are the annual ISHRS meeting and hair research meetings.

The meeting that I'm particularly excited about is the World Congress for Hair Research (see Upcoming Events for the web link). In particular, I am looking forward to attending the pre-congress clinical day. This year there is a different format to the first day with the focus on basics in areas of hair biology. If you want to listen to the world's experts discussing some of the basic concepts in hair sciences, then this is the opportunity to listen to them all in one venue. My dilemma is that I want to listen to all the talks but they have been split into concurrent sessions. Session 1, *Genetics and Epigenetics: All You Wanted to Know but Were Afraid to Ask*, includes such talks as "Reprogramming hair follicle cells to a pluripotent state: an exciting new tool for medicine" by Dr. Michael Rendl. Session 2, *What's New in Hair Follicle Model Systems?*, details mouse model systems, updates on dermal papillae cultures, culture media, reprogramming hair follicle cells to a pluripotent state, and delivering molecules via

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Among the issues that continue to intrigue me from our meeting in the Bahamas is the role of inflammation in producing alopecia of one type or another. The proinflammatory and inflammatory cascade of events are becoming ever more clearly understood. When such questions come to mind, it is satisfying as editor to recall articles in the *Forum* for reference: Marty Sawaya's excellent review of her work on inflammasones,¹ an earlier article on strontium,² as well as other investigations such as that by Dr. Sadick and his study investigating an aspect of the "acquired immune response": basement membranes of follicles being laden with antibodies.³



There seems to be a growing consensus that the "incidental" perifollicular inflammatory infiltrate may not be as incidental and insignificant as was thought for decades. Add to that intriguing questions regarding strontium's anti-inflammatory properties and you're in for a good ride of reflection and speculation.

Dr. Sawaya discusses the "innate immune reaction" (IIR) and especially the "inflammasome." The inflammasome is formed from "pattern recognition receptors" that are on the membranes and in the cytoplasm of many cells including epidermal and dermal cell lines in the skin and its appendages. When activated by a specific "molecular pattern" from an invading pathogen, for instance, these recognition receptors oligomerize with other proteins to form the inflammasome, which in turn can activate both proinflammatory cytokines such as IL-1A, IL-1B, IL-6, and TNF-A as well as the part of the immune system that most of us are more familiar with that involves T and B lymphocytes further downstream and are part of what is called the "Adaptive Immune Response" (AIR).

Dr. Sawaya refers to an article by herself and Drs. Vaccari, Nusbaum, Bauman, and others wherein a protein that interacts with the inflammasome cascade, Caspase-1, is studied in balding scalp.⁴ Caspase-1 is recognized as an inducer of apoptosis and inflammation and they studied its levels as well as quantified androgen receptors in various *in vivo* and *in vitro* conditions involving the presence or absence of testosterone and finasteride. That androgen levels increase Caspase-1 levels and finasteride

decreases them suggest the IIR (i.e., the inflammatory response) is perhaps the final common pathway for AGA.

Dr. Sadick's article summarized a study he performed predominantly on women with AGA. He found IgM deposits continuously along the basement membrane of the dermal-epidermal junction in 64% of afflicted women with associated evidence of complement activation and found that those with this deposition responded better to a combination therapy that included beclomethasone and spironolactone. A non-specific perifollicular lymphocytic infiltrate was present and was perhaps more predominant in the positive group. One can speculate that his findings are compatible with and are a further downstream manifestation of the inflammatory reaction from the AIR and whose "upstream" progenitor, the IIR, is discussed by Dr. Sawaya.

A few years ago I wrote a summary of strontium² that is now marketed as an anti-itch formulation named TriCalm by a San Diego company, Cosmederm Bioscience. Strontium is a divalent cation just beneath Ca⁺⁺ in the periodic table. It may replace Ca⁺⁺ and hence affect the Ca⁺⁺ cellular functions as the mechanism of action. As you can see by reading the review, strontium has strong anti-inflammatory properties via inhibiting the release of Substance P from the "nociceptor" Type C nerves, a non-myelinated nerve type that extends to the outermost layer of the epidermis. This has been termed "neurogenic inflammation" and their stimulation can release Substance P by depolarization exclusively within the terminal arborization of the nerve and needn't go all the way to the dorsal root, much less upstream via the spino-thalamic tract, before returning with its message to release Substance P and its "neurogenic inflammation." There is some evidence that strontium additionally acts even more directly on the pro-inflammatory proteins in addition to this function at the terminal synapse of the Type C nerve.⁵

Another pearl I took away from the Bahamas meeting was from Dr. Jeff Donovan when he said that he finds an itching or tender scalp to be a very useful complaint for detecting cicatricial alopecia. This is not surprising when you think of the inflammation driving the cicatricial alopecia and it begs the question of whether strontium and suppression of the IIR would help these conditions.

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Notes from the Editor Emeritus

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What we are really selling

I read an article in a local newspaper recently that impressed upon me once again what it is that we are really selling to the public, and that is *trust*. This article emphasized that, no matter what business someone is in, people want more than anything to trust the person with whom they are dealing, no matter what the product or service is. Poll after poll show that the public has lost trust in most companies and professions. There is a pervading feeling of being “marketed” with superficial, glitzy come-on’s and of being disappointed after receiving the service or product. Everything is impersonal. When is the last time you called a car dealer, a bank, or even a doctor’s office and heard a real human’s voice on the other end? The customer wants to trust the integrity of the person and institution he or she is dealing with. It’s not even about expecting a totally perfect product or perfectly performed service, but just knowing that the person you are dealing with has your best interest at heart, cares that you are satisfied and happy with what you are purchasing, and will stand behind it if something isn’t quite right down the road.

This is true in spades in hair transplant surgery, a profession in which we expect patients to take this enormous leap of faith and entrust to us, whom they have never met in their life, the life-changing task of filling the top of their head with hair. To successfully bring about this partnership with the prospective patient, you must first succeed in gaining the trust of the patient. Most patients visit at least two or three clinics before choosing where to go. Eventually they will get a “gut feeling” as to which physician or clinic they trust most, feel they will be most comfortable with, and believe they will receive a professional and competent surgical result. How do you maximize your chances for convincing them of this? I would propose that there are four major components. First is your website. Because the majority of

people today do their window-shopping on the Internet, your website is the first place people will learn about you. What does yours tell people? Do they sense that you are a caring and competent physician? Second is having a very personable person at your front desk to greet the patients and make them feel at home. It is equally important that your greeter’s voice be friendly and upbeat when dealing with patients over the phone. The third component is your clinical staff. Do they create an atmosphere that makes patients feel they are professional, caring, and competent? A great team of assistants who take pride in their work and enjoy working together is an enormous plus—and, believe me, patients can sense whether this is present or not. And fourth—actually, it probably should have been listed first—is the physician himself (herself). He or she should have a significant role during each consultation, to the point of performing the entire interview whenever possible. Patients should see a physician who conveys a warm, caring manner and is truly trying to figure out what is best for them, even if it means sometimes telling them that surgery at this time is not their best option. All questions should be answered by the physician in an honest, thorough way and never in an adversarial type of atmosphere.

A book that does a wonderful job of summarizing much of what I discussed above is Steven Covey’s *Seven Habits of Highly Effective People*. The principle point of his book is that there has to be an inner character to a person or a business, a commitment to certain principles of acting in a fair and honest way in all dealings, and it has to be present all the way from the boss on down to the least important person in the business; and it has to be real. It’s not something you can fake or “cover over” your practice with like icing on a cake. Most people are pretty good at detecting when this commitment isn’t really present. ♦

Reed Message

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With strontium becoming ever better understood and the great work of Dr. Sawaya and her colleagues working to better understand the IIR, I can see intriguing ideas to pursue: Can we be comfortable (as we were with the perifollicular inflammatory infiltrate in AGA for decades) that seborrheic dermatitis and psoriasis, symptomatic chronic inflammatory states, are not contributing to hair loss? Perhaps even their inflammatory states that are below the threshold of producing symptoms are eroding our hair counts. Should scalp biopsies be done more often for routine male pattern balding to consider this, especially if the inflammatory pathogenesis of alopecia becomes more certain? And other questions arise: Will antagonists of the IIR, perhaps strontium or something similar, prove to be useful in reducing the induction of apoptosis in the post-transplant state?

Will antagonists of the IIR prove to be useful in treating any or even all forms of alopecia? One nice feature of writing an editorial instead of a quality investigation of science is that it only has to express an opinion and can be primarily based upon speculation! Whatever the truth, I’m becoming a believer that the

answer is “yes” that many alopecias, and perhaps even the “Big One”—AGA—are related to this immune response... and just in time to save my teenage son’s hair from balding to the Stage VII of his two grandfathers! Many of these questions can be investigated fairly cheaply with the use of Hair Check, for example. I would appreciate a letter to the editor from anybody who can add to this line of thought. Let’s get started and enjoy the speculation that can abound in the emerging sophistication of our field!

References

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5. Private conversations with Gary S. Hahn, MD, Chief Science Officer, Cosmederm Bioscience, La Jolla, CA. ♦