Scratching the Five-Year Itch

Publication of this editorial will mark the mid-point of my fifth (and final) year as Editor of the Journal of Investigative Dermatology (JID). This experience has met my expectations in many ways, and I am thankful to have been selected to be the JID’s Editor. However, there is a fair amount of work involved, and with experience, some of it has become routine. Against this background, it is delightful to have the opportunity to introduce a thematic section of the Journal that highlights a research area (itch) that features recent progress that is already clinically relevant.

Practitioners have long been aware that our understanding of itch has been inadequate, that its impact on patients is significant and often underestimated, and that itch-directed therapies have largely been ineffective. My colleague Brian S. Kim, MD (see Figure) at Washington University is one of a number of investigators who have made recent seminal discoveries that have allowed the itch field to make leaps forward. Important papers that describe many of these discoveries have been published in journals that are not routinely followed by JID readers, so many investigative dermatologists and cutaneous biologists may not be aware of recent developments.

Dr Kim has successfully recruited reviews from several leaders in the itch field, and these, along with an introductory Commentary, appear in this issue of the JID. Collectively, these investigators provide insights into itch physiology and pathophysiology as well as encourage new therapeutic approaches that are applicable to historically challenging patients.

Readers of these articles will learn about acute and chronic itch; peripheral and central neurophysiologic itch-related circuitry; exogenous and endogenous pruritogens; and itch-related interplay involving cells of the nervous system, inflammatory cells, and stromal cells. The identities of key mediators and signaling pathways have emerged from studies of mice and, to a lesser extent, of humans, and these are also highlighted. Pre-existing targeted therapies directed at individual mediators or signaling pathways have, in some cases, already been remarkably effective in patients. Importantly, these successes do not represent what has been termed repurposing of existing drugs but rather a rational administration of existing inhibitors on the basis of improved understanding of physiology and pathophysiology.

Some of the recent histories of itch-related research are nicely documented in this issue of the JID. It is a success story with complexities that provide opportunities for additional interventions as well as challenges for present and future investigators. This story is also a reminder of the great value of interdisciplinary research efforts that include basic and physician scientists and patients that are focused on QOL. That investigative dermatologists have made significant contributions to recent progress in this field is worthy of recognition.

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