Partnership Among Dermatology, the Society for Investigative Dermatology, and Industry: Suggestions for Change

Several months ago, Braham Shroot described in the *Journal of Investigative Dermatology (JID)* (2007) his view of relationships between the Society for Investigative Dermatology (SID) and industry based on 20 years' experience as an active member of the SID and the pharmaceutical industry. He described deficiencies in understanding between the SID and industry, but he also described a new dialogue and concrete initiatives intended to improve that relationship, including creation of the annual course "SID Basics of Skin: Pharmaceutics & Pharmacology."

At the invitation of the *JID*'s Editor-in-Chief, I write to extend this discussion by addressing: (i) how dermatology as a medical discipline and its attractiveness for research and development investment are perceived by the industry and (ii) how investigative dermatologists in academia and the SID perceive and interact with members of the pharmaceutical industry. In my conclusion, I raise for discussion several suggestions intended to foster mutual understanding and partnership.

I have worked in pharmaceutical research at the Sandoz Research Institute and its successor, the Novartis Institutes for Biomedical Research in Vienna, since 1974. Most of my research has been devoted to the discovery and development of novel approaches and therapies for skin disease. This work began in the late 1970s with the discovery of a novel class of antimycotics, the allylamine derivatives, culminating in the discovery of terbinafine, which was synthesized in my laboratory in 1980 (Petranyi *et al*., 1984; Stuetz, 1987, 1993, 2007). Then, in the late 1980s, we initiated a project resulting in the discovery of the topical calcineurin inhibitors as a new class of compounds for treating inflammatory skin diseases, ultimately leading to the marketing of pimecrolimus (Meingassner and Stuetz, 1992; Stuetz *et al*., 2006). Additional projects have been created since that time, and I hope that some of these will also prove to be useful in the short- to mid-term future.

I became a member of the SID in 1989, and since 2005 I have served as a member of its Board of Directors. I consider this an honor, not only because I am an industry scientist but also because I am a European who lives outside of the United States.

One of the major issues I have witnessed over the past two decades is an underestimation of the importance and market potential of dermatology-related therapies compared with that of other organ-specific diseases. Possible reasons for this include the following:

1. Skin diseases are common but rarely life-threatening. Thus, the medical necessity of investing in new treatments is not as obvious to the public as, for example, the need to invest in cardiovascular disease or cancer. To counter this perception, it seems to me that dermatologic diseases must be defined and described in new ways. In fact, a landmark study describing the "burden of skin disease" on society, including its direct costs, was published recently (Bickers *et al*., 2006). On the other hand, this publication includes data collected only in the United States, not from a global perspective, and it seems to have not yet been widely utilized.
2. Dermatologic research is not recognized as a major contributor to progress in biomedical research and is thus not perceived as a source of new and innovative medical therapies. Many drugs used by dermatologists were developed first for indications other than those related to skin.
3. Very few drugs used to treat skin diseases have had blockbuster sales. The dermatology market is fragmented and dominated by inexpensive and relatively old medicines that have outlived patent protection.

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4. Several pharmaceutical companies have left skin disease, most likely due to a lack of innovation and relatively low sales.
5. Today only a few of the global pharmaceutical companies (still) have significant R&D activities specifically dedicated to skin disease.

In view of these assertions, it seems difficult within "big pharma" to assess the medical need and the market potential of skin disease and, consequently, to recruit support for dermatology-related activities or to foster the understanding that dermatology plays an important role in medical science and therapy.

Through my many interactions with dermatologists and academic scientists who work in skin research, it has become evident that there is often a negative attitude toward, and a low level or even lack of knowledge and understanding about, research in industry. Working on industry-sponsored projects may even be considered a disadvantage for those who pursue academic careers, and evidence of collaboration may not be utilized in preparing a curriculum vitae for fear of an academic's being perceived as "contaminated." In contrast, I have enjoyed several excellent collaborations with scientists in academic centers, resulting in the sort of peer-reviewed publications that one finds in the *JID* (Rappersberger *et al*., 1996, 2002; Hoetzenecker *et al*., 2004, 2005; Krummen *et al*., 2006). Thus, I know from personal experience that science-driven collaboration can create fruitful partnerships for both parties, in academia as well as in industry. This phenomenon was featured in the Novartis-sponsored symposium "Partnership Between Academia and Industry to Progress Understanding and Therapy of Skin Diseases" held at the 34th European Society for Dermatologic Research (ESDR) Annual Meeting in Vienna in 2004.

The SID, together with the ESDR and the Japanese Society for Investigative Dermatology (JSID), are the most important scientific representatives of dermatology as a science-based medical discipline, with significant records of promoting research. On the other hand, research in dermatology is not limited to academic centers; industrial research contributes in substantial ways to new therapies. In my opinion, the industrial contributions to this research enterprise are insufficiently represented and insufficiently valued at SID events. One piece of evidence for this is that within the past three SID meetings, presenters in 11 industry-sponsored symposia were drawn exclusively from academic centers, and therapeutic products resulting from sponsoring industries were hardly described, if mentioned at all. I understand fully that the SID does not want its annual meeting to be distorted by market-driven symposia or industry-dominated booths. However, if the SID wants industry to be interested in skin research and to continue or strengthen sponsorships, industry should be given a fair chance to be visible and valued adequately at SID-sponsored events.

Another aspect for consideration is that the attractiveness of the Annual Meeting to industry researchers may be increased by highlighting or making more transparent the many presentations that are a source or basis for new therapeutic approaches. The meeting abstracts, which are published in the *JID*, are great for "experts," allowing them to find out what is new and interesting in their specific subdisciplines, but abstracts alone can be enormously confusing to beginners and non-experts who want to learn about dermatology in general and to learn about novel therapeutic approaches. It seems that only a few clinical studies about new therapies are presented at the SID annual meeting, and few are published in the *JID*.

What can be done to address these concerns? The suggestions below are intended to promote further discussion:

- Expand, complement, and then feature the concept of "burden of skin disease." The recent document (Bickers *et al*., 2006) was a good start, but this effort should be updated and expanded, including a global dermatology perspective, e.g., with the help of the ESDR and the JSID. In its expanded form, this report should be published in a broad and global way to reach scientists, the medical community, patients, and industry (managers), and it should become visible to the population at large.
- Prove and then communicate the proof that progress in skin research contributes to progress in biomedical research in general and thus that cutaneous biology plays an important role in medical science and general medical therapy.
- Utilize the many excellent presentations at annual SID meetings to increase awareness of the innovative potential of dermatology research for non-experts. This could be supported by publishing reviews by experts who summarize SID oral and poster presentations in "New Trends in Immunology (Pharmacology, Keratinocyte Biology, etc.)" after each SID meeting in subsequent *JID* issues.
- Invite distinguished industry scientists to give keynote lectures on research (and development) concerning new therapies for skin disease at SID meetings. A summary on this may be published in *JID,* together with the expert summaries mentioned above.
- Provide awards, not only to academic but also to industry scientists, for breakthrough discoveries.
- Encourage at least one of the presenters in each industry-sponsored symposium to be from industry—of course, with the clear task of focusing on science.
- Create a dedicated slot or symposium at the SID annual meeting for the presentation of clinical research and studies of new therapies and encourage publication of science-driven clinical studies in the *JID*.
- Increase global activities of the SID in collaboration with the ESDR and the JSID beyond the International Investigative Dermatology (IID) meeting every 5 years in order to strengthen the global aspects, awareness, and recognition of dermatology.

The suggestions listed above are intended to be starting points for discussion, as well as to stimulate further suggestions and contributions by readers with the aim of supporting dermatology research by improved understanding and partnership among academia, industry, and the SID. Ultimately, patients would benefit from this improved relationship.

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