

## Global Collaboration in Dermatology Research

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The field of dermatology has experienced a remarkable evolution in recent years, driven by advancements in technology, a deeper understanding of skin biology, and a growing global awareness of skin health. Central to this progress is the increasing collaboration among dermatologists, researchers, and institutions worldwide.

Skin diseases affect people of all ages, races, and ethnicities, and their prevalence varies across different regions. Global collaboration in dermatology research is essential for several reasons: by pooling resources and expertise, researchers can identify and address the unique dermatological challenges faced by different populations, such as those in low- and middle-income countries. Certain cutaneous imaging techniques, for instance, require adaptation to various skin types. Dermoscopy, as an inexpensive and useful tool in clinical practice, can be employed both in routine care and for assessing the outcomes of specific procedures in clinical trials. However, there is a need to adapt the interpretation of dermoscopic signs across different skin types, hence the utility of international consensus involving practitioners from around the world (1).

Collaborative efforts can expedite the discovery of novel treatments and therapies for a wide range of skin conditions. Researchers can learn from each other's experiences, adopt successful strategies, and avoid duplicative efforts. The diversity of perspectives and approaches brought together through global collaboration can stimulate innovative research ideas. A prime example is the discovery of the role of the IL36RN gene mutation. This breakthrough emerged from a multinational study, initiated by the observation of familial forms of pustular psoriasis in southern Tunisia (2). Subsequent genetic analyses, conducted in France, identified the underlying genetic defect. This collaborative effort has revolutionized the management of pustular psoriasis, leading to the development of targeted biological therapies that have demonstrated superior efficacy compared to existing therapies (3).

Despite the many benefits of global collaboration, several challenges must be addressed. Variations in regulatory requirements across countries can complicate the design and conduct of multinational clinical trials. The sharing of sensitive patient data raises ethical and legal concerns that must be carefully addressed.

The future of global collaboration in dermatology research is promising. Emerging technologies, such as artificial intelligence and machine learning, have the potential to revolutionize the field by enabling the development of more personalized and effective treatments (4). Additionally, the increasing availability of genomic data and the growing recognition of the skin microbiome will open up new avenues for research.

Global collaboration is essential for advancing the field of dermatology and improving the lives of people worldwide. By fostering international partnerships, researchers can accelerate scientific discovery, address global health disparities, and ultimately improve patient outcomes.

## References

- 1. Anne EN, Ogunbiyi AO, Kelati A, Sadek A, Traoré I, Mavura D. *Dermoscopy Use in Africa: Determinants and Challenges*. Dermatol Pract Concept. 2024; 14(2):e2024098.
- 2. Tauber M, Bal E, Pei XY, et al. *IL36RN Mutations Affect Protein Expression and Function: A Basis for Genotype-Phenotype Correlation in Pustular Diseases*. J Invest Dermatol. 2016;136(9):1811-1819.
- 3. Morita A, Okubo Y, Imafuku S, Terui T. *Spesolimab, the first-in-class anti-IL-36R antibody: From bench to clinic.* J Dermatol. 2024;51(11):1379-1391.
- 4. Litaiem N, Sboui K, Daghrir J, et al. *Collective human intelligence vs. artificial intelligence: a comparative analysis for melanoma diagnosis in darker skin tones*. Int J Dermatol. 2024;63(10):e278-e280.