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EDITORIAL

Unraveling the secret life of the hair follicle: from fungi to innovative hair loss therapies

The discovery of fungi as the cause of tinea capitis in the middle years of the 19th century can perhaps be taken as the first foray into hair research. Microbial organisms were implicated in other hair diseases throughout the latter part of the 19th and early 20th centuries only to be later discounted in most with the exception of the role of *Malassezia* in seborrhoeic dermatitis of the scalp. The tide may be turning with the increasing interest in the skin and hair follicle microbiome in health and disease. The wool industry was a major driver for hair research during much of the 20th century, the first detailed description of the hair cycle by Francis Dry^[1] being amongst its early successes. The arrival of minoxidil in the 1980s and finasteride in the 1990s as treatments for androgenetic alopecia undoubtedly had a major impact on hair research and continue to do so, not least by demonstrating that it is possible to manipulate hair growth pharmacologically. The most recent example, that of Janus kinase inhibitors in the treatment of alopecia areata,^[2,3] has led to much renewed interest in this common and often disabling disease, one that has seen no significant therapeutic advances since contact immunotherapy was developed by Happle and Echtenacht in the late 1970s.^[4] Not all hair research has depended on such stimuli—for example, fundamental research into the biology of mesenchymal–epithelial interactions in embryological development of the hair follicle and hair cycling, and into hair follicle stem cells has been grounded in academia.

This edition of *Experimental Dermatology* is devoted to an eclectic mix of articles on various topics relating to hair biology and disease, with excursions into other less investigated skin appendages. They comprise up-to-date invited reviews, original research reports, letters, and commentaries that range from the philosophical to the entirely practical. Subjects covered include various aspects of hair follicle biology, in vitro methodology, hair fibre formation and damage, the aetiology and pathology of hair disease, and therapeutics. Branching into other skin appendages, new ideas on the morphogenesis of eccrine sweat glands and the relationship between the nail and limb regeneration are also presented and discussed.

The hair follicle is an endlessly fascinating structure that encompasses many aspects of mammalian biology and psychology. In terms of its evolutionary import, none of us would be here without it, which may partly explain the profound effect disorders of hair growth can have on humans. For those of us involved in research into hair disease and its treatment, we should bear in mind the patient perspective. The results of a recent study under the aegis of the UK James Lind Alliance tell us that the patient priorities for research into hair loss disorders are not necessarily the same as our own and can help to direct future research and support grant applications (<http://www.jla.nihr.ac.uk/priority-setting-partnerships/hair-loss/top-10-priorities/>).

CONFLICT OF INTERESTS

The authors have declared no conflicting interests.

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