

Molecular Biology in Otolaryngology – Head and Neck Surgery

A monthly series of brief instructive articles

In June of last year, a one-day course on molecular biology for otolaryngologists – head and neck surgeons and allied specialists was run at the University of Birmingham. The course was designed to bring interested clinicians up to date on aspects of molecular genetics relevant to the practice of otolaryngology in a painless and integrated way. The structure of the one-day course was appreciated by the audience which comprised otolaryngologists, audiologists and speech therapists. To cover all aspects of ear, nose and throat genetics together with a revision of basic principles in a five-hour programme was ambitious, but much of the important material was covered in that time. This series of articles is based on the course programme we set out, but allows a considerably greater scope of coverage. Whilst it is not expected that the reader will become an expert molecular geneticist at the end of reading this series of articles, it is hoped that the reader will have derived enough core knowledge to be able to read and digest the increasing number of molecular biology papers published and to be aware of the exciting developments happening in this arena that are pertinent to our specialty.

The reasons why the reader might wish to spend some time and attention on this series of articles are very well articulated by Professor Andrew Read in this month's article entitled 'Molecular Biology and the ENT Surgeon in the Millennium'. In case any readers feel that the title is excessively pompous, I am entirely to blame. What will become evident is that the three parts of the title are relevant not only to the article but to the series as a whole. The rate at which developments in molecular biology and in particular the clinical applicability of this knowledge have taken place has been increasing almost exponentially in the last decade. As we approach the Millennium, these developments have already

begun to have a rapidly increasing impact on clinical practice as Andrew Read will allude to. And so to the ENT surgeon. It is no longer possible for the clinician to bury his head in the sand with those frequently overheard and usually ill-informed remarks about genetic information never being able to replace the scalpel. It is not replacement but complementation which is the issue.

The following three articles from February to April will serve to review the basic principles of molecular genetics and to introduce the methods by which genetic and other cellular events are investigated experimentally. There will inevitably be a subset of readers for whom these chapters may appear over-simplified. Should anyone be offended, I am again entirely to blame. I have specifically advised the contributors that the priority is for these articles to be easily accessible and that their principal aim is to allow the subsequent articles to be understood without the need for reiterating essential principles of molecular biology.

The genetics of deafness, molecular oncology, principles of gene therapy, Treacher-Collins syndrome, the genetics of allergy and the genetics of skull-base tumours will all be addressed by leaders in their field. Each article will present the developments and the state-of-the-art in that area as well as emphasize their clinical implications.

It was the Editors' express wish that this series should not constitute a series of ramblings by randomly chosen molecular geneticists on their pet subject and it will become clear that their wish is fulfilled. This series will cover all the major issues and advances in molecular biology in our specialty in a structured and comprehensive manner.

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