

Introducing bioinformatics

In a very recent issue, our editorial highlighted the potential for genetic research on diseases of the head and neck.¹ In the current issue, this theme is extended, with an important commissioned review article from Ow and colleagues, in which they detail concepts in DNA sequencing and gene expression analysis.² The review is published in two parts and the second part will appear in the November issue of *The Journal of Laryngology & Otology*. Bioinformatics is an immense field, and these articles summarise the utility of these exciting developments as they apply to head and neck diseases. These articles augment those already published in this journal, to provide readers with up-to-date and stimulating information in this rapidly advancing field.^{3,4}

Genetic research is already feeding into development in the administration of chemotherapeutic agents for head and neck cancer. Bussu and colleagues describe the potentially synergistic effect of cetuximab (an epidermal growth factor receptor specific inhibitor), used in combination with cisplatin, on the proliferation and apoptosis of Hep-2 laryngeal cancer cells *in vitro*.⁵

Two articles in this issue address thyroid malignancy. Varshney and colleagues investigate the finding of lymph node metastasis in papillary thyroid microcarcinoma, and conclude that for isolated papillary microcarcinoma, thyroid capsule invasion is the only characteristic to correlate with lymph node metastasis.⁶ The importance of the thyroid capsule and its influence in disease has been recognised previously.⁷ The second 'thyroid' article in this issue describes the use of ultrasonography in staging thyroid nodules; the article introduces a new ultrasound reporting system that can be highly predictive of eventual histopathology.⁸

Finally, it is good to question some of the well-established techniques in head and neck surgery. One such

technique is the use of two fingerbreadths to plan the incision in submandibular gland surgery in order to avoid injury to the marginal mandibular branch of the facial nerve. One might feel that this kind of measure would be inaccurate and hence potentially dangerous. It is hence reassuring to discover, based on the findings of cadaveric studies, that the technique seems to be anatomically sound!⁹

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