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EDITORIAL

Loss of taste is very common after HCT: taste in wine is very important.

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'The first taste of a wine is like the first kiss; you look forward to the second'.

Andre Tcelistcheff. American winemaker. 1901–1994

Tchelistcheff's words remind me of the lyrics '… *a kiss is just a kiss*…' from the song 'As Time Goes by' written by Herman Hupfeld in 1931 and made famous in the film 'Casablanca' in 1942 sung by Sam (played by the American actor, singer and musician Arthur 'Dooley' Wilson) in Rick's Café.

Most physicians who look after patients who have received a haematopoietic cell transplant (HCT) are not particularly concerned with dysgeusia (a distortion of the sense of taste). However, loss of taste or alteration in the sense of taste is something that many patients undergoing HCT find very debilitating. Contributing factors to dysgeusia include chemo—radiotherapy induced mucositis, a dry mouth and of course Graft versus Host Disease. As Scordo [1] and colleagues recently pointed out, studies of dysgeusia following HCT are limited probably in part because of the aetiological complexity. Attempts at limiting the severity of mucositis following HCT have met with limited success and even the use of Palifermin (Kepivance, a truncated human recombinant keratinocyte growth factor, KGF, produced in E. Coli) failed to be of benefit [2]. In an earlier study [3] Epstein et al. found that by day 90–100 post HCT only 20% of patients reported moderate to severe changes in taste. More patients, however, reported changes in smell sensitivity. Many transplant centres use total parenteral nutrition for allogeneic HCT recipients to maintain body weight and nutritional status following HCT.

Of course, taste and smell are intimately related [4] and smelling a wine cork or a small sample of wine, *without swilling*, to detect contamination with TCA (2,4,6—Trichloroanisole) is paramount (Fig. 1). We are all familiar with the tongue map wherein certain areas of the tongue were believed to detect certain tastes, (sweetness, sourness, bitterness and saltiness), with bitterness at the back, sourness and saltiness at the sides and sweetness at the tip (Fig. 2). You can add 'umami' to this list a word derived from Japanese that refers to detection of a savoury taste (yes, I only learnt this word when researching this

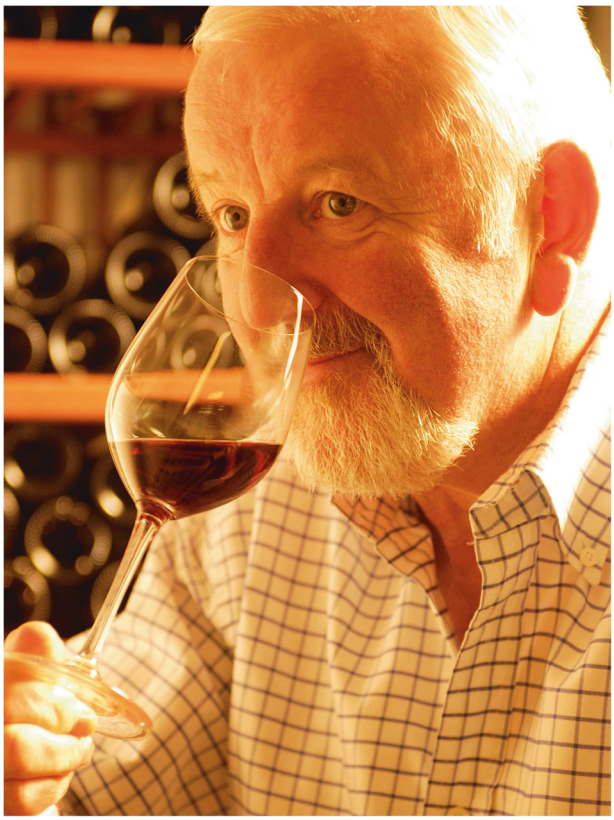

Fig. 1 Shaun McCann (Author) smelling wine before tasting or swilling.

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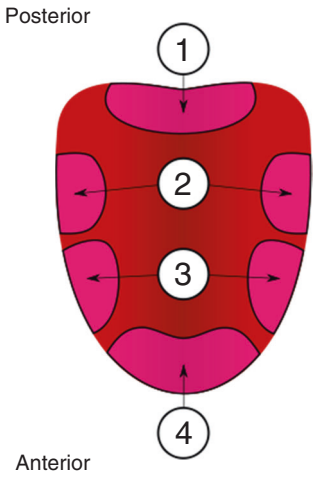

Fig. 2 Tongue map. 1 is the area for bitterness, 2 for sourness, 3 for saltiness and 4 is area for sweetness.

article). Most people now believe that the so-called tongue map is no longer relevant and that all areas of the tongue taste all basic tastes but some areas are more sensitive to certain tastes than others.

Taste/smell, of course, are complex brain functions. Linda Buch and Richard Axel are probably the most widely known investigators in this area [5]. They received the Nobel Prize for Physiology or Medicine in 2004 for their work. It seems that there are many different olfactory receptor cells each expressing a single odorant receptor gene. Most aromas are made up of many different molecules, each of which activates several olfactory receptors [6]. Apparently, humans can recognise and memorise 10,000 different aromas.

As with many scientific investigations carried out to explain certain human functions, artists often precede these observations. The best-known example is probably Marcel Proust. In Johan Lehrer's book 'Proust was a Neuroscientist' [7] Lehrer suggests that Proust probably understood the biochemical nature of taste as revealed in the famous passage where he describes eating a *madeleine*, drinking lime-flowered tea which prompted him to remember his first *madeleine* biscuit eaten many years before. Lehrer claims that Proust's intuition that memories 'are constructions that meld the past and the present' long preceded the neuroscientist's knowledge of the biochemical changes that take place in brain cells when memory is stimulated. Proust realised that it was the taste and smell of the biscuit that stimulated his memory without any understanding of biochemistry or neurophysiology.

One of the most important things when tasting wine is the context in which the tasting occurs. A beautiful glass of Chianti Classico consumed in the garden in Tuscany on a balmy moonlit night tastes quite different from a glass of the same wine imbibed on a wet and stormy evening in Dublin! It is one of the reasons why restaurants serve candle-lit dinners as restauranteurs know the importance of context when eating a meal accompanied by a good bottle of wine.

So, taste/smell are important human functions that help to enhance our lives. Like many things, in life, they only seem important when they are no longer present.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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