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## LETTER TO THE EDITOR

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Dear Sir,

In his letter to you (Chem Senses. 2008. 33(8):683), Luca Turin implies that I have put the record straight by saying that “odor cannot be predicted by molecular shape.” I am afraid that I must now indeed put the record straight by saying that this claim misrepresents what I published in *Angewandte Chemie* (Angew Chem Int Ed. 2006. 45(38):6254–6261). My paper describes how the complexity of the mechanism of olfaction makes prediction of odor from structure a statistical exercise and not one that can guarantee precise and accurate results every time. In a more recent publication (Triller A, Boulden EA, Churchill A, Hatt H, Englund J,

Spehr M, Sell CS. Chem Biodivers. 2008. 5(6):862–886), I together with a number of coauthors demonstrate very clearly that knowing whether or not an odorant activates a given receptor does not enable prediction of the ultimate odor percept. This fact will be true whether the nature of the interaction between odorant and receptor is stereoelectronic recognition (for which current research in biosciences and especially X-ray crystallographic evidence is now making an overwhelming case) or some method by which receptors can sense specific vibrational frequencies.

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