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From the authors:

We were pleased to learn that MAIRBÄURL *et al.* [1] recently confirmed our data on the effects of high altitude on nasal potential difference in high-altitude pulmonary oedema-prone subjects [2]. This raises the important problem that their previous data may represent an artefact [3]. We speculated that, among other factors, differences in the recording site used for nasal potential difference may have contributed to this artefact. MAIRBÄURL *et al.* [1] now speculate that nasal dryness and cold temperature, rather than improper location of the recording electrode, was the cause for this artefact, but fail to provide any direct experimental evidence for their speculation.

We have recently shown in mice that not only does a very close relationship between nasal and alveolar epithelial potential difference exist, but also, even more importantly, nasal potential difference is very closely correlated ($r=0.81$) with alveolar fluid clearance [4]. Moreover, and of paramount importance with regards to the translation of these findings into the clinical setting, in mice, nasal potential difference very reliably predicted propensity to develop experimental pulmonary oedema and time of resolution of pulmonary oedema *in vivo* [4]. In high-altitude pulmonary oedema-prone humans, decreased nasal potential difference indicates that alveolar fluid clearance is impaired, and, consistent with this concept, stimulation of fluid clearance with the β -adrenergic agonist salmeterol prevents pulmonary oedema during high-altitude exposure [5]. Taken together, these data indicate that, when used properly by experienced investigators, nasal potential difference does reflect alveolar fluid clearance in both animals and humans.

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