# ARTICLE IN PRESS

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### Letter to the Editor

#### Oscillococcinum®: Misunderstanding or biased interest?

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Dear Editor,

Contrasting opinions still exist about the efficacy of Oscillococcinum®, the most famous homeopathic remedy from Boiron Laboratoires, Lyon (F), which is commonly used for flu, season colds and airway inflammatory affections. This popular homeopathic medicine is scarcely supported by clinical and pharmacological evidence and, therefore, further investigations are needed to assess its supposed efficacy in flu. While a cutting Editorial from Weissman in 2006, sought to make fun of this homeopathic medicine for the flu, because it is made from the liver and heart of a duck [1], the immediate following comment by D. Ullman on the issue and the contrasting opinion by Prof. C. Boiron in this journal [1,2], did not contribute to achieve a clear overview about this topic, quite the contrary. Honestly, the ongoing encouraging sale of Oscillococcinum® could not care less both of the many criticisms in evidence based medicine (EBM) and people confidence. People appear to trust homeopathy as an effective approach by hearsay: this elicits a positive attitude that may also promote a placebo response. However, even those medicines from homeopathy, used as placebo by physicians, may bear potential damage to patients [3]: this obviously raises a bioethical concern.

How much the scientific evidence about Oscillococcinum® in literature? A Medline/PubMed query on the MESH term "Oscillococcinum" allows to retrieve only 11 papers, of which two of them are mere comments, a very small percentage of the whole bulk of papers dealing with homeopathy (11/4789 = 0.23%). A recent meta-analysis from the British Homeopathic Association, at Luton (UK) concluded that "there is insufficient good evidence to enable robust conclusions to be made about Oscillococcinum® in the prevention or treatment of influenza and influenza-like illness" [4]. This assessment enforces the negative evidence shown in previous Cochrane meta-analysis reports [5]. The very few positive papers yet raised criticisms, due to possible bias and unreliable results. The paper by Ferley et al., curiously conducted with people from Lyon (France), did not longer elucidate the bias regarding a spontaneous recovery from influenza due to the youngest age and a mild or moderate syndrome, yet lacking of specificity, because of the choice of criteria for the influenza-like symptoms in the recruited subjects [6]. Interestingly, 3 of the 4 positive reports on Oscillococcinum®, two of which [7,8] cited by Ullman in his comment, were supported by the French producer in Italy [7–9]: the article by Casanova and Gerard, [7] is a non-peer reviewed article on an Italian journal, editorially co-funded by Boiron Italia S.r.L., the article by Papp et al. [8], has P. Belon among the Authors, who held the Scientific Direction of Boiron Laboratoires, Lyon (France), while the manuscript in Ref. [9] was completely written by L.A. Marrari, the current Scientific Manager of Boiron Italia, S.r.L. It is particularly puzzling, furthermore, that in Italy, editorial activity pro-Oscillococcinum® even involved some expertise from the University of Verona, particularly the group of Prof. P. Bellavite and Dr. M. Marzotto, with whom Boiron Italia, S.r.L. has a research cofunding contract, since several years. Homeopathy is particularly devoted in the treatment of respiratory affections, both allergic and infectious, and Oscillococcinum® has been promoted by Boiron for influenza treatment in the Italian NIH [9]. However, by considering an amount of 9 scientific reports, from 1998 to date, of which only 4 reporting positive (encouraging) results, 3 can be related to Boiron directly, and are all considered positive. People might ask if this is a cumbersome coincidence, which in turn should elicit the naïve question if we are talking about a home-made science or a trivial biased interest. Notwithstanding, because some individuals are greatly disappointed from an insuccess occurred in official medicine while trying to heal them but many other are attracted by "soft and natural" therapeutics, these considerations will not dim any strong reason to accept homeopathy or complementary and alternative medicine (CAM) as a valuable alternative in healthcare. They may reply that it is nothing but the need to address the legitimate scientific investigation of Oscillococcinum® to safeguard consumers. Yet for the standing of the scientific community, as homeopathy is not pharmacology [10], it would be ethical to state that in the absence of further evidence, clearly not supported by Boiron only, people should deserve some legitimate doubt or concern in considering Oscillococcinum® for flu.

#### **Conflict of interests**

The Author declares that he has no conflict of interest.

### References

- [1] Weissmann G. Homeopathy: Holmes, Hogwarts, and the Prince of Wales. FASEB J 2006;20:1755–8.
  - Comment in: Ullman D. Let's have a serious discussion of nanopharmacology and homeopathy. FASEB J 2006;20:2661.
- [2] Boiron C. Homeopathy, a tremendous opportunity for medicine! Eur J Int Med 2011;22:117–8 [author reply 118–9].
- [3] Garattini S, Bertelé V, Banzi R. Placebo? No thanks, it might be bad for me! Eur J Clin Pharmacol 2013;69:711–4.
- [4] Mathie RT, Frye J, Fisher P. Homeopathic Oscillococcinum(®) for preventing and treating influenza and influenza-like illness. Cochrane Database Syst Rev 2012;12:
- [5] Vickers A, Smith C. Homoeopathic Oscillococcinum for preventing and treating influenza and influenza-like syndromes. Cochrane Database Syst Rev 2009;3: CD001957.
- [6] Ferley JP, Zmirou D, D'Adhemar D, Balducci F. A controlled evaluation of a homoeopathic preparation in the treatment of influenza-like syndromes. Br J Clin Pharmacol 1989;27:329–35.
- [7] Casanova P, Gerard R. Bilan de 3 annees d'estudes randomisees multicentriques Oscillococcinum/placebo. Oscillococcinumrassegna de la letterature internationale, 1. Milan: Laboratoires Boiron; 1992 11–6.
- [8] Papp R, Schuback G, Beck E, Burkardt G, Bengel J, Lehrl S, et al. Oscillococcinum in patients with influenza-like syndromes: a placebo controlled double-blind evaluation. Br Homeopath I 1998:87:69–76.
- [9] Marrari LA, Terzan L, Chaufferin G. Oscillococcinum for influenza treatment. Ann Ist Super Sanita 2012;48:105–9.
- [10] Chirumbolo S. Homeopathy is not pharmacology. J Int Med 2013;274:612-3.

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