Science, vol. N/A, 2022, pp. S/P-S/P.

Please, don't reject evidence when it exists! (Letter to editor).

Jesús Aguilar Andrade.

Cita:

Jesús Aguilar Andrade (2022). Please, don't reject evidence when it exists! (Letter to editor). Science, N/A, S/P-S/P.

Dirección estable: https://www.aacademica.org/jesus.aguilar.andrade/6

ARK: https://n2t.net/ark:/13683/paSf/PHh



Esta obra está bajo una licencia de Creative Commons. Para ver una copia de esta licencia, visite https://creativecommons.org/licenses/by-nc-nd/4.0/deed.es.

Acta Académica es un proyecto académico sin fines de lucro enmarcado en la iniciativa de acceso abierto. Acta Académica fue creado para facilitar a investigadores de todo el mundo el compartir su producción académica. Para crear un perfil gratuitamente o acceder a otros trabajos visite: https://www.aacademica.org.

eLetters

eLetters is a forum for ongoing peer review. eLetters are not edited, proofread, or indexed, but they are screened. eLetters should provide substantive and scholarly commentary on the article. Neither embedded figures nor equations with special characters can be submitted, and we discourage the use of figures and equations within eLetters in general. If a figure or equation is essential, please include within the text of the eLetter a link to the figure, equation, or full text with special characters at a public repository with versioning, such as Zenodo. Please read our Terms of Service before submitting an eLetter.

URL: https://www.science.org/doi/10.1126/science.abo7630

Jun. 3, 2022

Please, don't reject evidence when it exists!

Jesús Andrade

- Student
- Independent

Dear Sir,

I'm glad to read the comment by Weiss and Hobson about Montagnier's life. Unfortunately, the statement: "Sadly, as his fame increased, he became increasingly drawn to dubious theories, including his conviction that mycoplasma was an essential cofactor in AIDS and that DNA emitted electromagnetic radiation, among other fringe ideas," is dubious.

I'm aware of the controversy over EMS emitted by pathogen DNA and highly diluted solutions. Some rejected the Montagnier et al. experiments only based their critique on theoretical grounds [1] or ad hominem attacks [2]. Others [3] argue that defending Montagnier's work is a fallacy of authority" since he was not a physicist or their results are alien to homeopathy [3] or "nobody has been able to duplicate the experiment" [4]. Critics, however, have forgotten that Montagnier's experiments were made joint with physicists and biologists, and their relation to ultra-high dilutions used in homeopathy is clear. The experiment was replicated in four independent laboratories, sometimes under blind conditions and not only with viral pathogens [5-6]. Many experiments in physics [7], chemistry [8], and biology [9-10] are consistent with the main results of Montagnier's team. Then, some claims about the "implausibility of water memory" and homeopathy are not based on scientific arguments, but non-scientific ideology [11].

It is true, however, that some claims from homeopathic circles are dubious, but this does not mean that everything is. Homeopathy has evolved sufficiently and can be sustained by a materialistic philosophy based on experimental and theoretical insights from "conventional" wisdom without rejecting integrative care and philosophy [12].

Competing interests

None stated. I am not a homeopath, but I have researched the subject from a sociohistorical point of view.

References

- 1 Grimes D. (2012). Proposed mechanisms for homeopathy are phisically impossible. *Focus on Alternative and Complementary Therapies*; 17(3): 149-55.

 2 Hall H. (2009). The Montagnier "Homeopathy" Study | Science Based Medicine. Avaliable in: The Montagnier "Homeopathy" Study | Science Based Medicine.
- in: The Montagnier "Homeopathy" Study | Science-Based Medicine (sciencebasedmedicine.org)
- ³ Ernst E. (2016). *Homeopathy: undiluted facts.* Basel: Springer.
- 4 Schwarcz J. (2022). DNA teleportation really? *McGill Office for Science and Society*. Available in: DNA Teleportation. Really? | Office for Science and Society McGill

University

- 5 Montagnier L, Del Giudice E, Aïssa J, Lavalle C, Motschwiller S, et al.
- (2014). Transduction of DNA information through water and electromagnetic waves. *Electromagnetic Biology and Medicine*; 34(2): 106-12.
- 6 Tang Q, Li T, Bai X, Zhao M, Wang B, et al. (2018). Rate limiting factors for DNA transduction induced by weak eletromagnetic field. *Electromagnetic Biology and Medicine*; 38(1): 1-11.
- 7 Wassenhoven M, Goyens M, Henry M, Cumps J and Devos P. (2020). Verification of Nuclear Magnetic Resonance characterization of traditional homeopathically manufactured metal (Cuprum metallicum) and plant (Gelsemium sempervirens) medicines and controls. *Homeopathy*; 110(1): 41-51.
- 8 Chikramane P, Kalita D, Suresh A, Kane G and Bellare J. (2012). Why extreme dilutions reach non-zero asymptotes: a nanoparticulate hypothesis based on froth flotation. *Langmuir*; 28(45): 15864-75.
- 9 Ullman D. (2021). Exploring possible mechanisms of hormesis and homeopathy in the light of nanopharmacology and ultra-high dilutions. *Dose Response*; 19(2): 1-13.
- 10 Khuda A. (2014). Current trends in high dilution research with particular reference to gene regulatory hypothesis. *The Nucleus*; 51(1): 3-17.
- 11 Hahn R. (2014). Homeopathy: meta-analyses of pooled clinical data. *Complementary Medicine Research*; 20(5): 376-81.

12 Dei A. (2014). Experimental evidence supports new perspectives in homeopathy. *Homeopathy*; 109(4): 256-260.