

The Enigma of US Diplomats' Health Symptoms in Havana: Call For a Global Scientific Meeting

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In today's globalized world, scientific endeavor and its conclusions rest more than ever on dialogue and the ability to critically assess a full and transparent array of evidence, to maximize opportunities for accuracy and truth to prevail.

But such a normal, essential and prudent process has not been followed in the case of the health incidents reported by US diplomats in Havana in 2017. Instead, we see transparency and open scientific discussion hampered by lack of access to vital information, as well as publication of methodologically faulty research, analysis and unsubstantiated conclusions. For want of a thorough scientific approach, the essential questions remain unanswered, and those reporting symptoms still have no real explanation for their experience.

As President of the Cuban Academy of Sciences, I am surrounded by some of the best minds in Cuba. As in other nations, our mission is to advise government agencies and maintain links with counterparts and others in the global scientific community based on the premise that sharing and communicating knowledge contributes to the well-being of all our peoples.

For nearly 20 years, I directed the Center for Hereditary Ataxias Research and Rehabilitation in the eastern province of Holguín, an institution that accumulated notable successes nationally and internationally, in large part due to the priority accorded health by the Cuban government and its universal public health system. Research was the cornerstone of such advances, which depended on national and international scientific cooperation. Our scientists trained with others from the USA, Canada, Germany, France and other countries. Together, we organized events, published papers, examined and treated patients, and created networks of collaborators, mainly with researchers in the USA and Cuba, based on open exchange without ideological prejudice.

As a neuroscientist and as President of the Cuban Academy of Sciences, I address my comments here to the international scientific community, concerning the health symptoms reported by US diplomats in Havana and subsequent hypotheses. By and large, my observations are critical.


In particular, Swanson's 2018 article in *JAMA* describes a series of nonspecific neurological manifestations—including cognitive, vestibular and oculomotor alterations—in 21 US diplomats in Havana, initially associated with exposure to auditory and sensory phenomena and categorized by the US State Department as "sonic attacks."^[1]

The article has been criticized by the Cuban and international scientific communities for its inconsistencies in research design, long time lapse between symptoms and interviews, and use of subjective tools to assess oculomotor deficits ^[2]. Moreover, cognitive alterations were diagnosed using test thresholds with low specificity.^[3]

However, in a description also criticized internationally, the authors interpret their results as a new neurological syndrome involving brain damage without previous trauma. Brain damage is one of the conditions most studied by clinical neuroscientists, leading to knowledge of multiple aspects of its physiopathology and the main therapeutic options' primary mechanisms of action. These advances are based fundamentally on traumatic brain lesion research, since this represents the largest share of morbidity and mortality, and a serious health and socioeconomic problem. Nevertheless, the appearance of common neurological symptoms without evidence of trauma or exposure to toxins is an enigma. Their diagnosis is complex and requires exhaustive case studies and use of highly objective tools that lead to a differential diagnosis that rules out multiple neurological conditions exhibiting a similar clinical picture. The fact that all MRI results in the Swanson study were normal means that there is no objective clinical basis for assuming brain damage.

At the same time, Cuban specialists have not been permitted access to the US patients in order to contribute to a multidisciplinary, multinational examination. Nor, despite repeated requests to the US government, have we been able to establish personal contact with the physicians who assessed the diplomats, to develop a scientific exchange in which we could share observations and analysis.

On the basis of such a broad array of symptoms, without evidence of damage, and given the faulty methodology of the only US-government-authorized publication on the subject, it is impossible to conclude scientifically that any of these patients was targeted by an outside entity or person, as has been suggested.

It is essential to convene an international, broadly attended meeting to discuss the health symptoms described and review the evidence. I would propose such a meeting include the US scientists who directly participated in assessing the diplomats, scientists from Canada and Cuba, and other specialists who might contribute to clarifying this problem. With the sponsorship of our respective academies of sciences and on the basis of open exchange and full access to relevant information, we could discuss the date, format, venue and participation. 

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2. Ayton LN, Abel LA, Fricke TR, McBrien NA. Developmental eye movement test: what is it really measuring? *Optom Vis Sci* [Internet]. 2009 Jun [cited 2018 Oct 16];86(6):722–30. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/19417709>
3. Della Sala S, McIntosh RD. Cognitive impairments that everybody has. *J Neurol*. 2018 Jul;265(7):1706–7.

Submitted: October 8, 2018

Approved for publication: October 15, 2018

Disclosures: None

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