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The American Suntanning Association: A “Science-First Organization” with a Biased Scientific Agenda

Jerod L. Stapleton, Ph.D.^{1,2,3}, Elliot J. Coups, Ph.D.^{1,2,3}, and Joel Hillhouse, Ph.D.⁴

¹The Cancer Institute of New Jersey, New Brunswick, NJ

²Department of Medicine, University of Medicine and Dentistry of New Jersey- Robert Wood Johnson Medical School, New Brunswick, NJ

³Department of Health Education and Behavior, University of Medicine and Dentistry of New Jersey School of Public Health, Piscataway, NJ

⁴Department of Public Health, East Tennessee State University, Johnson City, TN

Ultraviolet (UV) indoor tanning (IT) is a \$5 billion a year industry in the United States and remains popular despite a growing scientific literature that demonstrates a link between IT and melanoma. The body of evidence linking melanoma to IT has prompted numerous national and international organizations to advocate the avoidance of IT. This list includes the American Medical Association, the American Academy of Dermatology, the United States Department of Health and Human Services, and the World Health Organization (WHO), among others. In addition, an increasing number of U.S. states have passed or introduced legislation designed to restrict access to IT among minors. The IT industry has invested heavily in lobbying efforts to prevent such legislation. The Indoor Tanning Association (ITA) represents the interest of IT manufacturers, suppliers, and salon owners and has seemingly had success at counteracting some legislative efforts (including recent failed efforts to ban access to IT among minors in New Jersey¹).

In December 2012, The American Suntanning Association (ASA) was formed as an all-tanning-salon-owner organization by a group of owners of tanning salon chains. The ASA is “... dedicated to increasing public awareness about the facts associated with moderate UV exposure ...”.² Examination of their website reveals messages quite similar to those found on the ITA website.³ The ASA website claims that IT is beneficial for vitamin D production, satisfies a need for moderate, responsible UV exposure, and even suggests that IT is an affordable self-treatment for cosmetic skin diseases that can be used to replace dermatologist-monitored phototherapy.⁴ There is also a focus on the small business nature of the tanning salon industry, which may be intended to convince legislators that tanning salon regulations could hurt business owners. The ASA site does not disclose published research that suggests IT beds are an ineffective method of promoting vitamin D production,

Correspondence concerning this article should be addressed to: Jerod Stapleton, The Cancer Institute of New Jersey, 195 Little Albany Street, Room 5570, New Brunswick, NJ 08901, jerod.stapleton@umdnj.edu.

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or that responsible exposure can be difficult as UV levels in beds tend to vary quite unpredictably.⁵ Given the apparent similarities, we were curious why the ASA, a new organization that will compete with the ITA for membership dues from IT salons, was formed.

One possible answer may relate to the ASA's stated goal of correcting "misinformation" and "misconceptions" about IT.² In an advertisement in an IT trade publication, the ASA refers to itself as a "science-first organization" that will recruit scientists to counter the "anti-tanning research used against us".⁶ These scientists will be charged with issuing research reports in an attempt to begin an "...open and honest dialogue with the public, media, the health care community and elected officials...". The ASA website contains a few examples of these research reports. The most prominent research featured is a poster presentation that re-analyzes a small subset of studies from the 2008 International Agency for Research on Cancer (IARC) working group's report that showed a significant association between IT and melanoma.⁷ This study was funded by the Vitamin D Alliance, an organization that receives funding from the IT industry according to the ASA president.⁸ Other studies include "independent surveys", which are not cited, with results that would argue against increased tanning restrictions in minors.⁴ The quality, rigor, and validity of these studies are difficult to assess given the lack of relevant study details provided.

The ASA indicates that it desires an open and honest scientific dialogue regarding the effects of IT on health. However, there are a number of problems with the methods the ASA is using to pursue this goal. Among other things, good scientific practice requires a lack of bias and the use of accepted methodology, both of which are evaluated when studies undergo the peer-review process and are published in legitimate scientific journals. The ASA claims that much of their planned research has been completed and will be utilized in major online public relations and lobbying efforts in 2013. It remains to be seen whether this research will undergo peer-review and publication in scientific journals. What is clear from the ASA's message is that the goal of this research is to counter "anti-tanning research" and "defend and promote the indoor tanning market".⁶ This goal clearly violates the scientific principle of lack of bias.

The perceived need of the ASA to reframe the public debate about IT speaks to the fact that the quality science linking IT to skin cancer has produced a more informed public and encouraged legislators to mitigate this public health issue. The funding of high-quality research is needed to further clarify the relationship of IT to melanoma and other health problems, and to evaluate the best methods to communicate accurate information to those at risk. For example, there is a growing body of research that suggests IT may induce dependence-like responses in many tanners. This research should be further pursued so we can better understand the effects of tanning on individuals' current and future behavior. Evidence that IT use can be addictive would shed new light on legislative efforts to restrict IT access in minors. Clinicians should be aware of this new counter-information campaign by the IT industry and continue to inform their patients about the risks of IT and the existence of potentially misleading information from the ASA and other organizations. Scientists and clinicians have a duty to remain cognizant of such issues and to voice

concerns when agenda-based research is presented in order to “defend and promote” a product with potentially devastating health consequences.

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