

National Academy of Sciences Sunscreens Investigation Released

For the past 18 months the National Academy of Sciences (NAS) panel investigated the environmental concerns regarding the use of sunscreens and the availability of adequate protocols to protect consumers from skin cancer. The panel has concluded its findings and its final report entitled “Review of Fate, Exposure, and Effects of Sunscreens in Aquatic Environments and Implications for Sunscreen Usage and Human Health” will be made available on August 9. Please consult my report on Happi.com.

One major development that has come and gone without too much fanfare was the passing of Ordinance 22-81 in the Hawaiian Islands. Mayor Mitch Roth decided not to sign the bill due to his concerns about enforcement, but nevertheless the bill will become law on Dec. 1, 2022. A similar bill in Maui becomes law in October. It basically bans sun care products sold in Hawaii that contain any UV active ingredient other than zinc oxide and titanium dioxide! If this movement takes hold elsewhere in this country, we could be facing major challenges in producing and promoting sunscreens in the US. It is

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See how they run! Who could have guessed that sunscreen could be erroneously linked to an Olympic doping scandal?

no surprise where this movement to ban all active UV absorbing molecules outside of the two inorganic mineral filters originated. It's simply the FDA's declaration in its Administrative Order of Sept. 27, 2021 that approved only zinc and titanium oxides as Generally Recognized as Safe and Effective (GRASE) Category I filters. All the other approved UV actives were basically relegated to Category III (requiring additional safety data) to be included as GRASE Category I filters.

The fact that the FDA has let this issue simmer for over a year-and-a-half, without presenting the necessary safety data or approving any other filters outside of the two mineral ingredients, has fueled the controversy over the use of non-mineral UV filters. In addition, the long-awaited NAS study has not finalized any issues relating to the current environmental concerns as they relate to sunscreens in general and the non-GRASE UV organic chemical filters. Having incomplete or inadequate pro-

tection is obviously not serving the public sufficiently in fending off the rising cases of skin cancer in this country.

OTHER MOVES

In other developments, the Cancer Moonshot program unveiled by the Biden Administration in February has progressed by appointing a panel of three scientists to advise the President on “barriers to and opportunities for progress in reducing the burden of cancer.” Dr. Elizabeth Jaffee, an internationally recognized expert in cancer immunology and pancreatic cancer, will chair the President's cancer panel. The two other members appointed are Dr. Mitchell Berger, a neurological surgeon operating on patients with brain tumors, and Dr. Carol Brown, a board-certified gynecologic oncologist at the Memorial Sloan Kettering Cancer Center (MSK). The priority actions for this cancer cabinet include the following:

1. Close the screening cap.

2. Understand and address environmental and toxic exposure.
3. Decrease the impact of preventable cancers.
4. Bring cutting-edge research through the pipeline to patients and communities.
5. Support patients and caregivers.

Members of our Public Access to Sunscreens (PASS) Coalition met with the Cancer Moonshot panel inquiring about skin cancer screenings, educational campaigns and new initiatives. PASS members felt very encouraged that those efforts will be pursued aggressively by the panel.

RESEARCH EFFORTS

Researchers in Australia are attempting to produce new technologies to address the inconsistencies of SPF testing and the reliance on human volunteers to determine the sun protection factor of sunscreen products. Scientists at Royal Melbourne Institute of Technology (RMIT) recently released their objectives. They have developed a prototype skin-mimicking sensor that changes color when exposed to UV radiation. If that sensor can mimic human skin, then skin of volunteers may no longer be required. More work is required to achieve this goal which, if successful, will address one moral issue that requires human subjects for testing unnecessarily, but it will obviously not address myriad issues confronting the reliability of sun protection testing of sunscreen products (read my February 2021 column in *Happi* magazine).

Finally, in a humorous, yet serious, development affecting thousands of athletes who were tested for banned substances prior to participating in major sports competitions; the urine samples of six dozen athletes who competed in the Tokyo Olympics last year came back with traces of a banned stimulant, 4-CPA (4-chlorophenoxyacetic acid). Apparently, the athletes were lathering sunscreen all over their

bodies for solar protection. The overuse of sunscreens that contain the common preservative 2-phenoxyethanol produces several metabolites when absorbed into the skin, including 2-phenoxyacetic acid and 4-CPA. Dr. Fedoruk, the chief scientist

at the US Antidoping Agency, discovered this phenomenon which is helping to clear all the affected athletes that were banned for positively testing for this banned stimulant.

Still waiting for the Final Monograph! ■