Yet another study shows absence of e-cigarette toxins

By Gil Ross — November 3, 2014

A new report in the *International Journal of Research and Public Health* assessed e-cigarette vapor [1] for the presence of toxins and mutagens. Researchers used various well-characterized assays, including one for genotoxicity and mutagenicity (adverse impacts on genes and mutations) known as the Ames test, invented by long-time ACSH friend, Dr. Bruce Ames.

The study authors, led by Dr. Manoj Misra (whose 4 co-authors and himself all worked for the research labs of Lorillard Tobacco Co. in Greensboro, NC), also assayed cigarette smoke and smokeless tobacco, as well as nicotine replacement therapy patches, for those same parameters (which also included quantifying inflammatory response and cytotoxicity [cell death]).

The results showed, as any objective observer of the harm reduction scenario would expect, non-detectable levels of toxins and mutagens, etc., in the e-cigarette effluent, as well as in the NRT absorbates and the smokeless tobacco products. These results held for e-cig liquids and vapors with or without flavors or nicotine, and were about 6,000-fold less-potent than the studies on combustible cigarette smoke.

As more and more science on the lack of harm expected from e-cigs and their vapor come pouring in, it will I hope become harder and harder for those who mindlessly or corruptly oppose this lifesaving technology to participate in their destructive chorus. Prior studies, by Drs. Farsalinos on heart cells [2], Goniewicz and Burstyn on chemicals [3] in e-cig vapor [4] (i.e. their minute quantities), as well as on the general safety [5] of vaping [6], as e-cig use is called, will continue to accumulate and eventually overwhelm the nay-sayers IF the regulators and politicians will permit it.

Links
[1] http://www.mdpi.com/1660-4601/11/11/11325
[2] http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3823305/

[3] http://www.ncbi.nlm.nih.gov/pubmed/23467656
[4] http://www.biomedcentral.com/1471-2458/14/18/abstract
[5] http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4110871/
[6] http://onlinelibrary.wiley.com/doi/10.1111/add.12659/abstract