

# CoMED Inc.

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## VACCINE PRESERVATIVES: UNSAFE & INEFFECTIVE

### PRESS RELEASE

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WASHINGTON, DC – A new study, “The Relative Toxicity of Compounds Used as Preservatives in Vaccines and Biologics”, published in the most recent issue of the peer-reviewed *Medical Science Monitor* (the International Medical Journal for Experimental & Clinical Research)<sup>1</sup>, confirms that none of the chemical compounds commonly used as preservatives in US-licensed vaccine/biological preparations can be considered an ideal preservative.

Their ability to fully comply with the lifetime preservative effectiveness requirements in the US Code of Federal Regulations (CFR) for preservatives in biological drug products is in doubt.

Preservatives are chemical compounds that are commonly used in vaccine and biological preparations as a means to prevent microbial growth in the event accidental contamination as might occur with repeated puncture of multi-dose vials. Addressing this need for such preservatives, the CFR, as codified in 1973, states, “products in multiple-dose containers shall contain a preservative, except that a preservative need not be added to Yellow Fever Vaccine; Poliovirus Vaccine Live Oral; viral vaccines labeled for use with the jet injector; dried vaccines when the accompanying diluent contains a preservative; or to an Allergenic Product in 50 percent or more volume in volume (v/v) glycerin” [21 CFR § 610.15(a)]. This CFR regulation also requires that “any preservative used shall be sufficiently nontoxic so that the amount present in the recommended dose of the product will not be toxic to the recipient, and in combination used it shall not denature the specific substance in the product to result in a decrease below the minimal acceptable potency within the dating period when stored at the recommended temperature” [21 CFR § 610.15(a)].

The in vitro research in this new article examined: (1) the comparative toxicity of commonly used preservatives in US-licensed vaccines to human neurons; and (2) the compounds’ relative toxicity indices of these compounds derived by comparing their toxicity to human neurons to their toxicity to bacterial cells.

Using human neuroblastoma cells, this study showed that the relative toxicities of the compounds commonly used as preservatives in US-licensed vaccines were: phenol < 2-phenoxyethanol < benzethonium chloride < Thimerosal.

The observed relative toxicity indices (human neuroblastoma cells/bacterial cells) were: 2-phenoxyethanol (4.6-fold) < phenol (12.2-fold) < Thimerosal (>330-fold). In addition, for the compounds tested, *except for 2-phenoxyethanol*, the concentrations necessary to induce significant killing of bacterial cells were significantly higher than those routinely present in US-licensed vaccine/biological preparations.

These investigators concluded, “(f)uture formulations of US[-]licensed vaccines/biologics should be produced in aseptic manufacturing plants as single dose preparations, eliminating the need for preservatives and an unnecessary risk to patients.”

This landmark study was supported by the not-for-profit 501(c)3 corporations: CoMeD, Inc and the Institute of Chronic Illnesses, Inc.

Your generous tax-free donations will help us to fund additional research, similar to the present study.

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To support the ongoing efforts of CoMeD, Inc. with your tax-deductible contributions, please use the PayPal link on CoMeD’s Internet website, <http://www.Mercury-freeDrugs.org>. CoMeD, Inc. is a not-for-profit 501(c)(3) corporation that is actively engaged in legal, educational and scientific efforts to stop all use of mercury in medicine, and to ban the use of all mercury-containing medicines.

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<sup>1</sup> Geier DA, Jordan SK, Geier MR The Relative Toxicity of Compounds Used as Preservatives in Vaccines and Biologics. *Medical Science Monitor* 2010; 16(5): SR21-SR27.