March 6, 2023

HB699 FWA (Favorable with Amendment) Laszlo G. Boros Los Angeles, CA 90049

Joseline A. Pena-Melnyk Chair House Health and Government Operations Committee HB 699- State and Local Government- Proof of Vaccination for Employees and Applicants for Employment- Prohibition (Vaccination by Choice Act)

## Position: FAVORABLE with Amendment

Dear Chair Pena-Melnyk and Members of the Committee:

Thank you for the opportunity to voice my strong support for HB 699 - State and Local Government-Proof of Vaccination for Employees and Applicants for Employment- Prohibition (Vaccination by Choice Act)

Ribonucleic acid (RNA) based vaccination technologies cannot be considered safe and effective as the transcription of genetic material in mammalian cells may also occur from chemically modified (stabilized) RNA to DNA by human DNA polymerase theta (Pol $\theta$ ) even without the presence of viral reverse transcriptase (1). Biological processes that require transcription of RNA based genetic information to DNA were previously believed to be strictly depend on reverse transcriptase (RT) enzymes during RNA virus replication only, such as that of the human immunodeficiency virus (HIV) (2). Mandating proof of RNA based vaccination with boosters for employees and/or students may be harmful as it would be crucial to clarify the impact of stabilized RNA based genetic material, the content of these injections, on human DNA (3). More specifically, it is not known whether the mammalian DNA repair polymerase theta (Pol0) enzyme that efficiently promotes RNA-templated DNA synthesis incorporates chemically stabilized injected RNA materials into the genome of somatic or reproductive human cells. This problem arises as Pol0 exhibits a significantly higher velocity and fidelity of deoxyribonucleotide incorporation on RNA templates versus that of DNA. In addition, this enzyme undergoes a major structural transformation within the thumb subdomain to form multiple hydrogen bonds with template ribose 2'-hydroxyl groups like it does in retroviral RTs. This testimony is to clarify 1) if injected stable circulating RNA materials incorporate into human DNA to cause irreversible harm and 2) if deuterium (<sup>2</sup>H; D), which is the heavy stable isotopic pair of hydrogen used in water-based solvents during the vaccine manufacturing and injecting procedures (4), alters the thumb subdomain of Polθ so that it forms stable hydrogen bonds with the ribose 2'-hydroxyl groups of vaccines that enhances the reverse transcriptase function of human polymerase theta to modify the human genome. Such processes may cumulatively cause DNA instability and cancer (5) among other serious health problems.

**References:** 

- Chandramouly, G., et al. Polθ reverse transcribes RNA and promotes RNA-templated DNA repair. Science Advances, Volume 7 | Issue 24 | June 2021 https://www.science.org/doi/10.1126/sciadv.abf1771
- Hu, W-S., Hughes, S. H. HIV-1 reverse transcription. *Cold Spring Harb Perspect Med.*, 2012 Oct; 2(10): a006882 - <u>http://perspectivesinmedicine.cshlp.org/content/2/10/a006882</u>
- 3. Boros, L. G., et al. To stabilize or not to stabilize RNA that is still the question. *Science Advances*, Volume 7 | Issue 24 | June 26, 2021 https://www.science.org/doi/10.1126/sciadv.abf1771#elettersSection
- 4. Sen, A., et al. Role of heavy water in biological sciences with an emphasis on thermostabilization of vaccines. *Expert. Rev. Vaccines.*, 2009, 8, 1587-602, <u>https://doi.org/10.1586/erv.09.105</u>
- Marques, M. P. M., et al. Role of intracellular water in the normal-to-cancer transition in human cells - insights from quasi-elastic neutron scattering. *Struct. Dyn.*, 2020, 7(5), 054701. <u>https://doi.org/10.1063/4.0000021</u> - eCollection

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