Published OnlineFirst October 20, 2009; DOI: 10.1158/0008-5472.CAN-09-2482

In Response:

We thank Dr. Espey and his colleagues for their interest in our article. We believe, however, that their concern about the use of dehydroascorbic acid (DHA) as the form of vitamin C used to test the hypothesis that increased intracellular concentrations of ascorbate might attenuate the therapeutic effects of antineoplastic agents is misdirected. We used DHA as the only efficient means to increase intracellular ascorbate in the cell lines that we studied (1–3). In order to maintain continuity, we also used DHA in the *in vivo* mouse experiments. Although DHA is not the chemical form of vitamin C that can be purchased over the counter, the intracellular ascorbate that we measured is the same chemical moiety that is accumulated intracellularly with oral ascorbic acid supplementation. Although Dr. Espey and his colleagues note that we achieved higher intracellular ascorbate levels with DHA than are routinely achieved with oral vitamin C in our experiments, we believe that it is important to point out that we presented data to show that lower levels of intracellular ascorbate (4-10 mmol/L) also attenuated the cytotoxic effects of all of the antineoplastic agents that we tested. Because we tested a preclinical model, we share the concern that our results not be extrapolated prematurely to a clinical scenario. Nonetheless, intracellular concentrations of ascorbate that mitigate the cytotoxicity of anticancer drugs overlap intracellular concentrations of ascorbate that can be achieved in normal human lymphocytes in healthy subjects taking 1,000 mg of ascorbate daily, and perhaps less (4). We are less convinced that the available data provide reassurance that cancer cells have lower levels of intracellular ascorbate, but wholeheartedly agree that this issue is in need of more study.

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Disclosure of Potential Conflicts of Interest

No potential conflicts of interest were disclosed.

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Published OnlineFirst 10/20/09.

doi:10.1158/0008-5472.CAN-09-2482

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Cancer Research

The Journal of Cancer Research (1916–1930) | The American Journal of Cancer (1931–1940)

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Cancer Res 2009;69:8830-8831. Published OnlineFirst October 20, 2009.