ERRATUM

Volume 68, Number 3, February 9, 1976

In "High Mutagenicity and Toxicity of a Diol Epoxide Derived from Benzo[a]pyrene," by P. G. Wislocki, A. W. Wood, R. L. Chang, W. Levin, H. Yagi, O. Hernandez, D. M. Jerina, and A. H. Conney, pp. 1006-1012, the first paragraph of the Discussion, beginning on p. 1009, should read:

DISCUSSION: Earlier studies with the BP 4,5-, 7,8- and 9,10-oxides and their six corresponding phenols revealed that BP 4,5-oxide was greater than 100-fold more mutagenic than any of the other compounds tested (7). Our laboratory has now studied the mutagenic activity of all twelve BP phenols and several BP oxides, dihydrodiols and quinones in several strains of S. typhimurium and in hamster V79 cells (8). Among these compounds, BP 4,5-oxide was the most mutagenic. The present study indicates that the diol epoxide is many-fold more mutagenic than BP 4,5-oxide. Indeed, the diol epoxide is one of the most mutagenic compounds ever tested in S. typhimurium or in V79 Chinese hamster cells. In V79 cells, the diol epoxide is more mutagenic than MNNG, ethyl methanesulfonate or the several polycyclic hydrocarbon arene oxides that are commonly used as reference mutagens (15,18). Since BP 7,8-diol-9,10-epoxide is very unstable (half-life<30 seconds in the test systems), its intrinsic mutagenic and cytotoxic activity is probably even greater than what is described here. During the preparation of this manuscript, Malaveille et al. (19) reported on the mutagenic activity of

a different BP 7,8-diol-9,10-epoxide (synthesized by a peroxyacid oxidation) in S. typhimurium TA 100. It was found that their diol epoxide was about equipotent to BP 4,5-oxide. The stereochemistry and purity of this compound were not provided.