

## CORRECTION

The results of our recent paper, "Topography of Nucleic Acid Helices in Solution. I. The Nonidentity of Polyadenylic-Polyuridylic and Polyinosinic-Polycytidylic Acid Helices" (Edmond J. Gabbay, *Biochemistry*, Vol. 5, September 1966, p 3036), concerning the stabilization of nucleic acid helices by diquatary ammonium salts, I,  $R_1R_2R_3N^+(CH_2)_nN^+R_1R_2R_3 \cdot 2X^-$ , are somewhat misleading. We assumed that Mahler's statement [H. R. Mahler and B. D. Mehrotra (1963), *Biochim. Biophys. Acta* 68, 211; (1964), *Biochim. Biophys. Acta* 91, 78] that the simple diamines, II,  $NH_2(CH_2)_nNH_2$ , exist in the diprotonated form at neutral pH is correct. However, we have found that the  $pK_1$  of ethylenediamine, 1, is 6.88, and hence at pH 7.0 more than 50% of 1 exists in the monoprotonated form. For this reason the melting temperature of rA-rU and rI-rC in the presence of the dihydrobromide salts of II were reinvestigated at a lower pH. Fortunately, the results shown below indicate that maximum stabilization still occurs at  $n = 3$  for rA-rU and rI-rC helices. The arguments and conclusions drawn in the original paper remain accurate.

TABLE: Variation of  $\Delta T_m$  of rA-rU and rI-rC with  $2 \times 10^{-3}$  M II,  $H_3N^+(CH_2)_nNH_3 \cdot 2Br^-$ , in 0.10 M Sodium Phosphate Buffer at pH 6.15<sup>a</sup> (0.10 M with respect to  $Na^+$ ).

| $n$ | rA-rU <sup>b</sup> | rI-rC <sup>c</sup> |
|-----|--------------------|--------------------|
| 2   | 6.2                | 7.5                |
| 3   | 8.2                | 9.0                |
| 4   | 7.2                | 6.4                |

<sup>a</sup> At this pH, ethylenediamine exists in the diprotonated form to the extent of 90%, whereas the other diamines are 100% diprotonated. <sup>b</sup>  $T_m$  of blank is  $56.0 \pm 0.2^\circ$ . <sup>c</sup>  $T_m$  of blank is  $59.0 \pm 0.3^\circ$ .

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