CORRECTIONS

Extracting Hydrophobic Free Energies from Experimental Data: Relationship to Protein Folding and Theoretical Models, by Kim A. Sharp, Anthony Nicholls, Richard Friedman, and Barry Honig*, Volume 30, Number 40, October 8, 1991, pages 9686–9697.

Page 9692. In Table III, the units for the amino acid molar volumes, V, should read $Å^3$ per molecule.

Substrate-Specific Enhancement of the Oxidative Half-Reaction of Monoamine Oxidase, by Anthony K. Tan and Rona R. Ramsay*, Volume 32, Number 9, March 9, 1993, pages 2137–2143.

Page 2140. In Table III, the k_{cat}, K_m, k_3, and K_D values for MPTP are incorrect. The table should appear as follows:

Table III: Kinetic Parameters for Beef Liver MAO B from Steady-State and Stopped-Flow Half-Reaction Experiments

	steady state		reduction		oxidation	
substrate	k_{cat} (s^{-1})	K_m (mM)	k_3 (s^{-1})	K_D (mM)	k_{app} (s^{-1})[a]	k_{ox} ($mM^{-1}\,s^{-1}$)[b]
kynuramine	2.75	0.084	13.6	1.11	2.17	2.89
benzylamine	10.0	0.36	10.9	0.14	7.6	29.4
β-phenylethylamine	3.62	0.067	572	4.5	1.8	5.35
tryptamine	0.67	0.13	0.63	0.15	2.1	5.45
5-hydroxytryptamine	0.077	0.28	0.097	0.24	1.7	4.12
5-methoxytryptamine	0.30	0.40	0.42	0.47	0.5	0.75
MPTP	3.3	0.30	3.7	0.04	6.0	23.3
MPP^+					no reoxidation	
none					1.3	5.49

[a] At 0.238 mM O_2. [b] The plots of K_{obsd} vs $[O_2]$ have nonzero intercepts, and the slope increases with the concentration of ligand, indicating that E_RS is reoxidized faster than E_R and that $K_D^{E_RS}$ is high. Because the rates of oxidation and reduction of MAO B are similar, the experimental time courses describe the transition from fully reduced enzyme to a steady-state level of oxidation which is determined by the rate constants and the levels of amine and O_2 present. The approach to the steady state can be represented as

$$E_R \underset{g([S])}{\overset{f([O_2][S])}{\rightleftharpoons}} E_{ox}$$

and the observed rate takes the form

$$k_{obsd} = [k_{11} + k_{12}[S]/(K_D^{E_RS} + [S])][O_2] + k_{13}[S]/(K_m^{s} + [S])$$

where k_{11} is the bimolecular rate constant for the reoxidation which is given here as k_{ox}. The detailed derivation of this equation is given in Ramsay et al. (1987).

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