

*Corrections*

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2011. The role of bulk protein in local models of ion-binding to proteins: Comparative study of KcsA, its semisynthetic analog with a locked-in binding site, and valinomycin. *Biophys. J.* 100:1542–1549.

In **Tables 1 and 3**, we incorrectly noted three energy values. We rectify those errors here. The changes are small and do not affect the conclusions in the article.

In **Table 1** for wild-type KcsA in column A<sub>3</sub>,  $\Delta\langle\epsilon_{\text{local}}\rangle$  is  $-21.0$  not  $-19.6$ .

In **Table 3** for wild-type KcsA, the ion site interactions,  $\Delta\langle\epsilon_{\text{local}}\rangle$  is  $-21.0$  not  $-19.6$ .

In **Table 3** for wild-type KcsA, the ion-medium interactions,  $\Delta\langle\epsilon_{\text{m}}\rangle$  is  $2.2$  not  $0.8$ .

In **Table 3** for wild-type KcsA, the local entropy change,  $T\Delta S_{\text{local}}^{\text{ex}}$  is  $2.1$  not  $3.5$ .

We reproduce **Tables 1 and 3** here for completeness. The updated values are noted in bold.

**TABLE 1 Free energy and binding energy for KcsA, KcsA-G77A<sub>D</sub>, and valinomycin according to three different methods of assessing ion-protein interactions (see Methods)**

	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
<b>KcsA</b>			
$\Delta\mu^{\text{ex}}(S)/\Delta W_{\text{local}}$	-14.7	-15.7	-15.8
$\Delta\langle\epsilon_{\text{local}}\rangle$	-20.9	-18.8	<b>-21.0</b>
<b>KcsA-G77A<sub>D</sub></b>			
$\Delta\mu^{\text{ex}}(S)/\Delta W_{\text{local}}$	-9.0	-10.0	-9.9
$\Delta\langle\epsilon_{\text{local}}\rangle$	-28.3	-19.3	0.8
<b>Valinomycin</b>			
$\Delta\mu^{\text{ex}}(S)/\Delta W_{\text{local}}$	-11.3		-11.0
$\Delta\langle\epsilon_{\text{local}}\rangle$	-17.7		-9.4

$\Delta W_{\text{local}}$  is insensitive to these choices and is sufficiently close to the actual free energy change,  $\Delta\mu^{\text{ex}}(S)$ . The local model adequately captures binding energetics in KcsA but not in KcsA-G77A<sub>D</sub> and valinomycin. For the latter two systems, Na<sup>+</sup> is stabilized by interactions with medium outside the binding site. Statistical uncertainties in energy values are  $\sim 0.8$  kcal/mol.

**TABLE 3 Energetic decomposition for KcsA and KcsA-G77A<sub>D</sub>**

	KcsA	KcsA-G77A <sub>D</sub>	
$\Delta\mu^{\text{ex}}(S)$	-15.7	-10.0	
$\Delta W_{\text{local}}$	-15.8	-9.9	
$T\Delta S^{\text{ex}}$	1.3	-1.1	
$T\Delta S_{\text{local}}^{\text{ex}}$	<b>2.1</b>	4.7	
Ion-site	$\Delta\langle\epsilon_{\text{local}}\rangle$	<b>-21.0</b>	0.8
Ion-medium	$\Delta\langle\epsilon_{\text{m}}\rangle$	<b>2.2</b>	-20.1
Site-site	$\Delta\langle U_S \rangle$	7.3	-6.0
Site-medium	$\Delta\langle U_{S-M} \rangle$	-2.9	14.5
Medium-medium	$\Delta\langle U_M \rangle$	0.0	-0.3

Eight carbonyl ligands comprise the local site. We consider the water molecules in the S<sub>1</sub> and S<sub>3</sub> sites adjoining the S<sub>2</sub> site as the medium. Similar to valinomycin, the change in ion-medium interactions is inversely related to the change in site-medium interactions. All values are in kcal/mol.

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2011. Impact of heparan sulfate chains and sulfur-mediated bonds on the mechanical properties of bovine lens capsule. *Biophys. J.* 100:2077–2083.

Author L. B. Dyksterhuis' middle initial is incorrect in the published article and is corrected here.

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