Erratum: Spatial Organization of the Cell Cytoplasm by Position-Dependent Phase Separation


Chiu Fan Lee, Clifford P. Brangwynne, Jöbin Gharakhani, Anthony A. Hyman, and Frank Jülicher
(Received 20 November 2013; published 27 December 2013)

DOI: 10.1103/PhysRevLett.111.269902 PACS numbers: 87.16.-b, 64.70.Ja, 87.15.Zg, 99.10.Cd

There are typographical errors in this Letter that we would like to correct.

1. The symbols $\psi$ and $\phi$ are erroneously interchanged in the caption of Fig. 2(a). The correct sentence should read “Phase diagram for a ternary fluid description of the cytoplasm, where $\phi$ denotes the volume fraction of P granule constituents and $\psi$ denotes the volume fraction of the Mex-5 protein.”

2. On the sixth line above Eq. (4), the minus sign is missing in front of $L_2$. Namely, the one-phase region should correspond to $-L_2 \leq x < 0$.

3. The expressions for $B$ and $C$ given in Eqs. (5) and (6) are incorrect. The correct expressions are

\begin{equation}
B = A \cosh(\gamma_1 L_1) \left[ 1 + \frac{\gamma_1}{\gamma_2} \tanh(\gamma_1 L_1) \right],
\end{equation}

\begin{equation}
C = \frac{A \gamma_1 \sinh(\gamma_1 L_1)}{\gamma_2 \sinh(\gamma_2 L_2)}.
\end{equation}

4. The definitions for $\gamma_1$ and $\gamma_2$ [below Eq. (6)] should read $\gamma_1^2 = \alpha/D_c$ and $\gamma_2^2 = \beta/D_d$.

All the subsequent discussions in the Letter are based on the correct expressions. These corrections are only typographical and do not alter the results and the conclusions of the Letter. We thank Dr. Christoph Weber for pointing out these errors to us.