Additions and Corrections

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A role for iron in an ancient carbonic anhydrase.

Brian C. Tripp, Caleb B. Bell III, Francisco Cruz, Carsten Krebs, and James G. Ferry

Page 6685, Table I: Two errors appear in this table. The 11th row down from the top needs to be moved down one space so that it aligns with "2.37 ± 0.03 zinc" in the "Molar ratio of metal/trimer" column. Also, in the 2nd to last row from the bottom in the "Molar ratio of metal/trimer" column after the numbers "0.27 ± 0.03" should be the word "zinc" (not "inc").

The corrected table is shown below:

| Purification | Growth supplement$^a$ | Reconstitution metal | Molar ratio of metal/trimer | Effective $k_{cat}$ (×10⁻³ s⁻¹) | $K_m$ (×10⁻³ M) | Effective $k_{cat}/K_m$ (×10⁻³ M⁻¹ s⁻¹) |
|--------------|------------------------|----------------------|----------------------------|-------------------------------|----------------|----------------------------------|
| Aerobic      | Zn²⁺                   | Zn²⁺                 | 2.76 ± 0.15 zinc           | 68.1 ± 4.0$^b$                | 21.8 ± 2.2   | 31.3 ± 5.1                      |
|              | Zn²⁺                   | Co³⁺                 | 2.37 ± 0.09 cobalt         | 118.0 ± 10.5$^b$              | 15.7 ± 2.8   | 75.3 ± 19.9                     |
|              | Zn²⁺                   | Cu²⁺                 | 1.47 ± 0.06 copper         | 9.2 ± 0.4$^c$                 | 7.2 ± 0.8    | 12.9 ± 1.9                      |
|              | Zn²⁺                   | Mn²⁺                 | 2.34 ± 0.08 manganese      | 5.8 ± 0.5$^c$                 | 22.5 ± 3.4   | 12.6 ± 0.6                      |
|              | Zn²⁺                   | Ni²⁺                 | 2.37 ± 0.09 nickel         | 0.7 ± 0.1$^c$                 | 14.2 ± 3.8   | 0.5 ± 0.1                       |
|              | Zn²⁺                   | Cd²⁺                 | 2.46 ± 0.12 cadmium        | 5.5 ± 0.3$^b$                 | 22.1 ± 2.0   | 2.5 ± 0.4                       |
|              | Zn²⁺                   | Mg²⁺                 | < 0.01 manganese$^c$       | ND$^d$                        | ND           | ND                              |
|              | Zn²⁺                   | Fe²⁺                 | < 0.01 iron$^c$            | ND$^d$                        | ND           | ND                              |
|              | Fe³⁺                   | Fe²⁺                 | 2.79 ± 0.12 iron           | 243.3 ± 22.8$^b$              | 44.8 ± 7.4   | 54.4 ± 15.5                     |
|              | Fe³⁺                   | Zn²⁺,Fe²⁺            | 2.25 ± 0.12 iron           | 110.2 ± 9.6$^b$               | 24.6 ± 3.5   | 44.8 ± 10.4                     |
|              | Fe³⁺                   | Zn²⁺,Fe²⁺,Co²⁺       | 2.37 ± 0.03 zinc           | 0.69 ± 0.06 zinc              | 55.1 ± 7.7$^e$| 24.3 ± 5.7                      | 22.7 ± 8.6                     |
|              | Fe³⁺                   | No reconstitution    | 2.70 ± 0.12 iron           | 206.4 ± 61.7$^e$              | 26.1 ± 9.3   | 79.0 ± 51.8                     |
|              | Fe³⁺                   | No reconstitution    | 0.30 ± 0.03 zinc           | 30.6 ± 10.3$^e$               | 40.7 ± 13.3  | 46.7 ± 26.2                     |
|              | Zn²⁺                   | No reconstitution    | 1.17 ± 0.03 zinc           | 190.1 ± 44.4$^e$              | 40.7 ± 13.3  | 46.7 ± 26.2                     |
|              | No supplementation     | No reconstitution    | 1.89 ± 0.03 iron           | 275.1 ± 7.7$^e$               | 46.0 ± 7.8   | 59.9 ± 17.5                     |
|              |                       |                     | 0.27 ± 0.03 zinc           | 0.04 ± 0.01 copper             |              |                                 |

$^a$ The enzymes were purified from E. coli cultured in medium supplemented with either 0.01 % (w/v) ferric ammonium citrate or 0.5 mM ZnSO₄.

$^b$ Effective $k_{cat}$ and $k_{cat}/K_m$ values were obtained by dividing apparent $k_{cat}$ and $k_{cat}/K_m$ values by the molar ratio of metal/monomer.

$^c$ Limit of detection.

$^d$ ND, not determined.

$^e$ Effective $k_{cat}$ and $k_{cat}/K_m$ values were obtained by dividing apparent $k_{cat}$ and $k_{cat}/K_m$ values by the sum of the molar ratio of metals/monomer.

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We suggest that subscribers photocopy these corrections and insert the photocopies at the appropriate places where the article to be corrected originally appeared. Authors are urged to introduce these corrections into any reprints they distribute. Secondary (abstract) services are urged to carry notice of these corrections as prominently as they carried the original abstracts.
Dimorphecolic acid is synthesized by the coordinate activities of two divergent Δ^{12}-oleic acid desaturases.

Edgar B. Cahoon and Anthony J. Kinney

Page 12495, line 21 of the Abstract: The notation for the cis-Δ^{12} isomer of dimorphecolic acid should be 9-OH-18:2Δ^{10,12}trans,12cis.

Page 12500, legend to Fig. 5: The notation for the cis-Δ^{12} isomer of dimorphecolic acid should be 9-OH-18:2Δ^{10,12}trans,12cis.

The notation for dimorphecolic acid should be 9-OH-18:2Δ^{10,12}trans,12trans.

These changes do not affect the results or conclusions reported in the paper.
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