



Corrigendum: Inhibition of the Rumen Ciliate *Entodinium caudatum* by Antibiotics

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Keywords: antibiotics, associated bacteria, axenic culture, *Entodinium*, ruminal protozoa

A corrigendum on

Inhibition of the Rumen Ciliate *Entodinium caudatum* by Antibiotics

by Park, T., Meulia, T., Firkins, J. L., and Yu, Z. (2017). *Front. Microbiol.* 8:1189. doi: 10.3389/fmicb.2017.01189

In the original article, there was an error in the title of **Table 3** as published. *E. caudatum* data (% of that of the control) in the presence of different antibiotics (mg/ml). The correct legend appears below.

E. caudatum data (proportion of that of the control) in the presence of different antibiotics (mg/ml).

In the original article, there was a typo in the legend for **Figure 8** as published. **heminm**. The correct legend appears below.

hemin

In the original article, there was an error. **The axenic cultures of these ciliated can be maintained in laboratory, and they have greatly facilitated or enabled characterization of their metabolism, physiology, and ecology.**

A correction has been made to **INTRODUCTION:**

The axenic cultures of these ciliates can be maintained in laboratory, and they have greatly facilitated or enabled characterization of their metabolism, physiology, and ecology.

In the original article, there was an error. **After two changes of the hexamethyldisilazane, the cells air-dried a chemical hood.**

A correction has been made to **MATERIALS AND METHODS, Experiment 1: Growth Inhibition of *E. caudatum* and Its Associated Prokaryotes by Individual Antibiotics, Electron Microscopy, 2: After two changes of the hexamethyldisilazane, the cells were air-dried in a chemical hood.**

In the original article, there was an error. **The *E. caudatum* counts in the antibiotics-treated cultures were expressed as % of that of the control culture that received no antibiotics, and culture OD (as an estimate of bacterial concentration) was subjected to two-way ANOVA using SAS 9.3 (SAS Institute, Cary, NC, USA).**

A correction has been made to **MATERIALS AND METHODS, Statistical Analysis, 1: The *E. caudatum* counts in the antibiotics-treated cultures were expressed as proportion of that of**

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the control culture that received no antibiotics, and culture OD (as an estimate of bacterial concentration) was subjected to two-way ANOVA using SAS 9.3 (SAS Institute, Cary, NC, USA).

In the original article, there was an error. In the 72 h *E. caudatum* cultures containing 0.5 and 1 mg/ml of ampicillin, very few or no moving *E. caudatum* cells were seen under the microscope, but unexpectedly 2 mg/ml ampicillin only lowered *E. caudatum* count by >54%.

A correction has been made to **RESULTS, Experiment 1. Growth Inhibition of *E. caudatum* and Its Associated Prokaryotes by Antibiotics, 1: In the 72 h *E. caudatum* cultures containing 0.5 and 1 mg/ml of ampicillin, very few or no moving *E. caudatum* cells were seen under the microscope, but unexpectedly 2 mg/ml ampicillin only lowered *E. caudatum* count by >54%.**

In the original article, there was an error. **Based on the results of Experiment 1, three of the antibiotics (carbenicillin, bacitracin, and neomycin) and their two- and three-way**

concentrations were used to generate an axenic culture of *E. caudatum*.

A correction has been made to **RESULTS, Experiment 2: Preparation of a Temporarily Axenic Culture of *E. caudatum* and Its Growth Recovery, 1: Based on the results of Experiment 1, three of the antibiotics (carbenicillin, bacitracin, and neomycin) and their two- and three-way combinations were used to generate an axenic culture of *E. caudatum*.**

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way.

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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