

Correction for Fidopiastis et al., “*Vibrio fischeri* Possesses Xds and Dns Nucleases That Differentially Influence Phosphate Scavenging, Aggregation, Competence, and Symbiotic Colonization of Squid”

Pat M. Fidopiastis, Chaz Childs, Jeremy J. Esin, Jordan Stellern, Anna Darin, Andrea Lorenzo, Vanessa T. Mariscal, Jason Lorenz, Vinay Gopan, Sarah McAnulty, Karen L. Visick

Volume 88, no. 22, e01635-22, 2022, <https://doi.org/10.1128/aem.01635-22>. Figure 2A and B, Figure 6A and B, and the associated legends should appear as shown in this correction.

In response to an inquiry, we repeated specific experiments, namely, a subset of those shown in original Fig. 2 and 6. We confirmed that, as we previously reported, the single *xds* mutant retained a small amount of extracellular nuclease activity that could be attributed to *dns*. All strains behaved as shown in original Fig. 2A following growth of cells on DNase agar for 24 h, with robust halos for all strains that contained an intact *xds* gene and no halo for *xds* mutant strains (Fig. 2A). Also as previously reported, we observed halos on mucin plates for strains that contained an intact *xds* but no halo for the *xds* mutant or either of two *xds dns* double mutants at 24 h (Fig. 6).

We reported that the *xds* mutant produced a weak halo on DNase plates after prolonged incubation (72 h), and indeed, that was the basis for identifying *dns* as the responsible factor in the published work. In repeat experiments, we found that this slight ability was difficult to visualize at the 72 h time point and was more reliably observed at later times, such as after 6 days of incubation as shown in Fig. 2B, and on thin plates (e.g., 13 mL of media). This activity was dependent on *dns*, as a double mutant did not display that clear halo. This late (and weak) appearance of Dns-dependent activity is consistent with its importance in the cell aggregation phenotype that was assayed after 7 days in the original manuscript.

Despite this minor variation in the timing of measurable Dns activity, these results do not change any of the conclusions in the original publication, including our major conclusion that Xds is the predominant secreted nuclease in *V. fischeri*, while Dns plays a distinct role in a subset of tested phenotypes. Please see the Corrected and Republished paper (P. M. Fidopiastis, C. Childs, J. J. Esin, J. Stellern, A. Darin, A. Lorenzo, V. T. Mariscal, J. Lorenz, V. Gopan, S. McAnulty, and K. L. Visick, *Appl Environ Microbiol* e00328-24, 2024, <https://doi.org/10.1128/aem.00328-24>), in which we modified the text and replaced the figures. We also made corrections to the name of *dns* complement strain KV10273 (listed originally as KV10274) and to one of the primers used to construct it (primer 3352 was used rather than 4033 as originally listed).

Address correspondence to Pat M. Fidopiastis, pfidopia@calpoly.edu.

See the original article at <https://doi.org/10.1128/aem.01635-22>.

Published 7 May 2024

Copyright © 2024 American Society for Microbiology. All Rights Reserved.

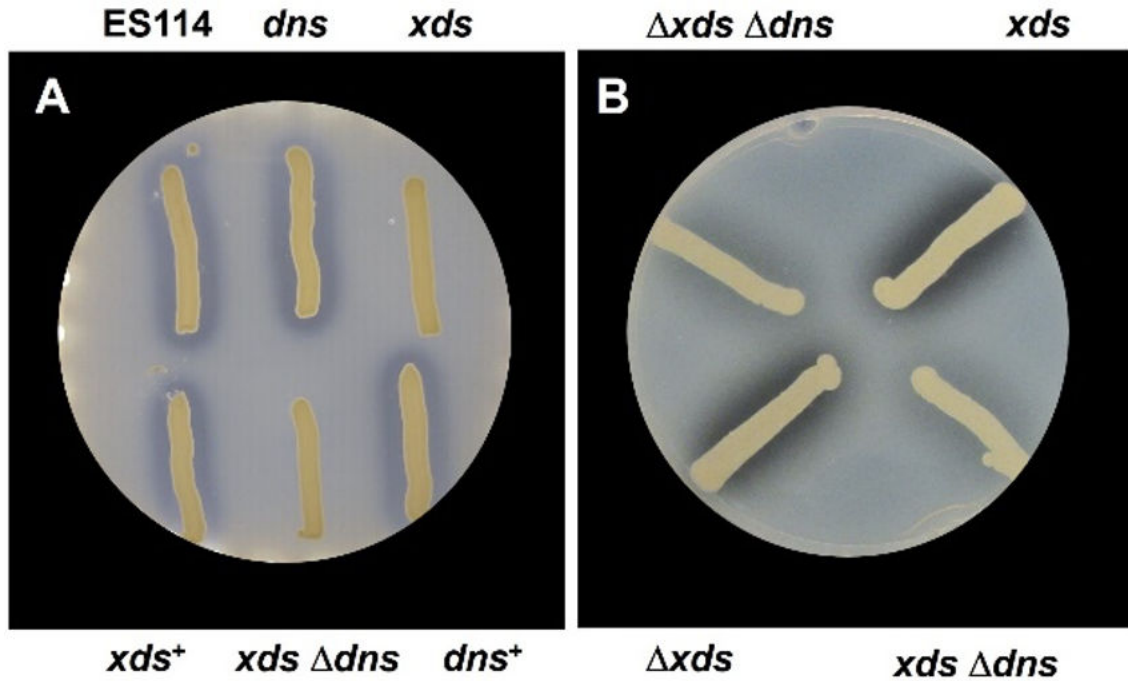


FIG 2 Nuclease activity of *V. fischeri* strains on DNase agar. (A) 24 h. Strains are as follows: ES114 (wild type), *dns* (KV9606), *xds* (KV7913), *xds*⁺ (KV10274), *xds* Δ *dns* (KV10492), *dns*⁺ (KV10273). (B) 6 days. Strains are as follows: Δ *xds* Δ *dns* (KV8865), *xds* (KV7913), *xds* Δ *dns* (KV10492), and Δ *xds* (KV8811).

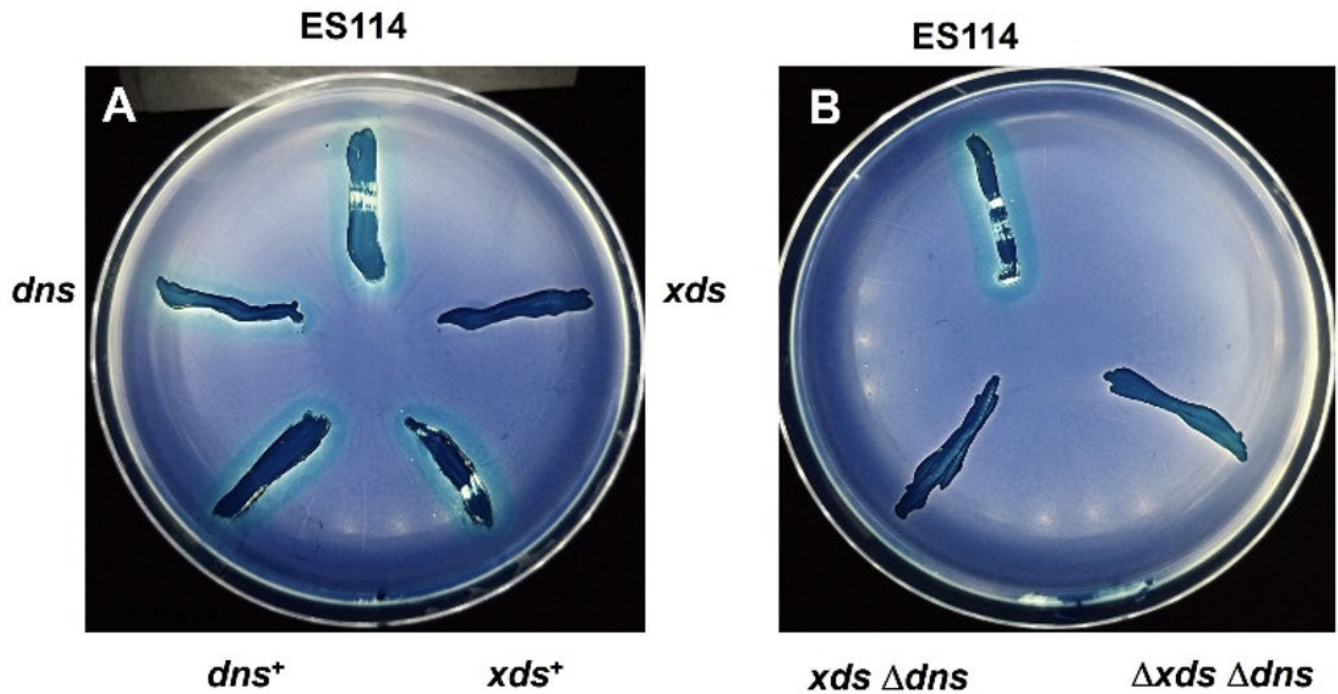


FIG 6 Digestion of mucin at 24 h. (A) Strains are as follows: ES114 (wild type), *dns* (KV9606), *xds* (KV7913), *dns*⁺ (KV10273), *xds*⁺ (KV10274). (B) Strains are as follows: ES114 (wild type), *xds* Δ *dns* (KV10492), Δ *xds* Δ *dns* (KV8865).

Strain	Genotype
ES114	Wild type
KV7913	<i>xds::Tn5</i>
KV8811	$\Delta xds::FRT-erm$
KV8865	$\Delta dns::FRT \Delta xds::FRT$
KV9606	$\Delta dns::FRT$
KV10273	$\Delta dns::FRT$ IG (<i>yeiR-FRT-Erm/glmS</i>)::PnrR <i>dns+</i>
KV10274	pVSV105- <i>xds/xds::Tn5</i>
KV10492	<i>xds::Tn5 \Delta dns::FRT</i>

AUTHOR ORCIDs

Pat M. Fidopiastis  <http://orcid.org/0000-0003-1631-4744>

Karen L. Visick  <http://orcid.org/0000-0002-2400-2591>