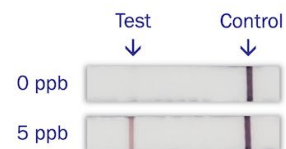


<b>Grant Information: Institution, Principal Investigator(s), Contact Information, Grant Number</b>	<p><b>Stemloop Inc.</b>  <b>Project:</b> A Paper-Based Synthetic Biology Platform for the On-Demand Testing of Water Quality  <b>Project Leader:</b> <a href="#">Khalid K. Alam, Ph.D.</a>  <b>Funding Period:</b> Phase II: September 2022 – August 2024  R44ES031899</p>
<b>Technology</b>	<p>Stemloop is developing an inexpensive, easy-to-use, and rapid test for lead in drinking water.</p>
<b>Innovation</b>	<p>Stemloop’s ROSALIND™ technology (<i>Nature Biotechnology</i> <b>38</b>, 1451–1459, 2020) rewires an ancient bacterial protein to sense lead and activate a genetic response in a “cell-free” biochemical reaction. The reaction is freeze-dried for shelf-stable storage and distribution, is activated by adding water, and measured using a lateral flow device.</p>
<b>Contaminant and Media</b>	<p>Lead in drinking water</p>
<b>Sites/Samples</b>	<p>Stemloop is collecting and testing drinking water samples from systems across the United States, with a focus on Chicagoland and the surrounding Great Lakes region.</p>
<b>Technology Readiness Level</b>	<p>TRL 7 — System prototype demonstration in operational environment</p>



*uSense for Lead – an inexpensive, easy-to-use, and rapid test for lead in drinking water.*