Artificial pond water

For the cultivation of *Biomphalaria glabrata, Bulinus truncatus* and *Oncomelania hupensis*

Prepare 4 stock solutions:

1. FeCl₃ • 6H₂O – 0.25 g/liter
2. CaCl₂ • 2H₂O – 12.9 g/liter
3. MgSO₄ • 7H₂O – 10 g/liter
4. Phosphate buffer:
   a. dissolve 34 g KH₂PO₄ in 500 ml H₂O
   b. add approximately 175 mL 1 N NaOH until pH 7.2 is reached
   c. add 1.5 g (NH₄)₂SO₄
   d. add H₂O to 1.0 liter

For 20.0L Pond H₂O

<table>
<thead>
<tr>
<th>10 mL FeCl₃ solution</th>
<th>50 mL FeCl₃ solution</th>
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<tbody>
<tr>
<td>50 mL CaCl₂ solution</td>
<td>250 mL CaCl₂ solution</td>
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<tr>
<td>50 mL MgSO₄ solution</td>
<td>250 mL MgSO₄ solution</td>
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<tr>
<td>25 mL Phosphate buffer</td>
<td>125 mL phosphate buffer</td>
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Bring to 20.0L H₂O and mix

For 100.0L SRC barrel of Pond H₂O

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<th>Bring to 100.0L and mix</th>
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Comments
The NIH NIAID Schistosomiasis Resource Center uses an ion exchange resin system (organic, anion, cation and mixed-bed tanks) to generate deionized H₂O from Rockville, Maryland tap H₂O. The above recipe for “pond H₂O” is used to add back select ions. Pond H₂O is used in all SRC operations including snail cultivation (‘snail pans’), parasite collection; percutaneous exposure of rodents to cercariae; and the exposure of snails to miracidia.

References
Materials and Methods communicated by: J. Collins, PhD (U of Texas-Southwestern) and P. Newmark, PhD (U of Wisconsin, Madison) by way of D. Williams, PhD (Rush University) and J.L. Bennett, PhD (Michigan State University)