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## Artificial pond water

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

Prepare 4 stock solutions:

1.  $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$  – 0.25 g/liter
2.  $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$  – 12.9 g/liter
3.  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$  – 10 g/liter
4. Phosphate buffer:
  - a. dissolve 34 g  $\text{KH}_2\text{PO}_4$  in 500 ml  $\text{H}_2\text{O}$
  - b. add approximately 175 mL 1 N NaOH until pH 7.2 is reached
  - c. add 1.5 g  $(\text{NH}_4)_2\text{SO}_4$
  - d. add  $\text{H}_2\text{O}$  to 1.0 liter

For 20.0L Pond  $\text{H}_2\text{O}$

10 mL  $\text{FeCl}_3$  solution  
50 mL  $\text{CaCl}_2$  solution  
50 mL  $\text{MgSO}_4$  solution  
25 mL Phosphate buffer

Bring to 20.0L  $\text{H}_2\text{O}$  and mix

For 100.0L SRC barrel of Pond  $\text{H}_2\text{O}$

50mL  $\text{FeCl}_3$  solution  
250mL  $\text{CaCl}_2$  solution  
250mL  $\text{MgSO}_4$  solution  
125mL phosphate buffer

Bring to 100.0L and mix

### Comments

The NIH NIAID Schistosomiasis Resource Center uses an ion exchange resin system (organic, anion, cation and mixed-bed tanks) to generate deionized  $\text{H}_2\text{O}$  from Rockville, Maryland tap  $\text{H}_2\text{O}$ . The above recipe for “pond  $\text{H}_2\text{O}$ ” is used to add back select ions. Pond  $\text{H}_2\text{O}$  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)