

## **Establishing a Laboratory Culture of *Hypsibius exemplaris* for Use in Molecular Studies**

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*Hypsibius exemplaris*, a species of tardigrade, are typically fed *Chlorococcum*. However, we wanted to test the ability of *H. exemplaris* to grow in *Chlorella vulgaris* algae in a minimally-controlled environment.

In order to further evaluate the role calcium may have on tun formation, we have explored the effects of phorbol 12-myristate 13-acetate (PMA) on *H. exemplaris* in the presence of glucose. PMA is an activator of protein kinase C, which leads to decreased intracellular calcium when activated. Therefore, we hypothesize that PMA may inhibit the ability of glucose or  $\text{CaCl}_2$  to induce tuns due to its ability to decrease intracellular calcium via the protein kinase C pathway.