

Emily Andrews

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Final Abstract

*Botryllus schlosseri* is a marine colonial tunicate with an incredible regenerative stem cell functionality. The organism follows a strict life cycle that allows it to be replaced by a new genetically identical organism every seven days. The organism can regenerate a whole colony just from small pieces of the organism, which makes it a perfect model organism for future studies of stem cells, regenerative biology and apoptosis research. Establishing cell lines from this organism has been challenging because, when these cells are planted from colonies into cell culture, they cease to proliferate. To try and establish cell lines from this species, whole organisms were treated with a known genotoxic agent which should induce mutations in hopes for allowing some type of one cell to proliferate in cell culture. Organisms were dissected out of their colonial tunic and placed in a tissue culture media with ENU at high and low dose. The outgrowth of cells from these organisms was monitored after 24, 48, and 72 hours.

(Results and conclusion sentences will be added next week).