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Goal: Transform Symbiodinium and O.Marina using Lonza

Protocol:

- 1. 1.5 mL of the symbiodinium (cell count: 1,092,000 cells/mL) was added to an eppendorf tube and spun down at 900g for 3 minutes. 3.5 mL of the o. Marina (cell count: 420,000 cells/mL) was added to a 50mL falcon tube and spun down at 1000g for 3 minutes.
- 2. The supernatant was removed from both tubes and 98 μ L of SG and 22 μ L of the supplement were added to EACH of the tubes and were swirled to resuspend the pellet.
- 3. 40 µL aliquots were made of each cell type (6 tubes total)
- 4. O. marina tubes
 - a. 20 μ L of Dino III RFP (ng/μ L)
 - b. 20 μL of Dino III GFP (ng/μL)
 - c. 20 µL diH2O (for the blank)
- 5. S. microadriaticum tubes
 - a. $40 \mu L$ of Dino III RFP ($ng/\mu L$)
 - b. 20 µL of Dino III GFP (ng/µL)
 - c. 20 µL diH2O (for the blank)
- 6. The Lonza machine was set for the correct pulse codes (DS-137 and DS-130) and 25 μ L of each sample was added to the corresponding cuvette well
- 7. After shocking, $80~\mu L$ of media (ASP8A for s. microadriaticum and F/2 for o. marina) was added to the cuvette well and pipetted up and down three times. The contents of the cuvette were then transferred to the corresponding well in a 24-well plate.
- 8. The 24-well plates were placed in artificial light (hub) for incubation.

Notes:

- On the 24-well plate, A stands for pulse code DS-137 and B stands for pulse code DS-130
- The 24-well plate on top contains transformed O. marina and the one on the bottom contains transformed S. microadriaticum