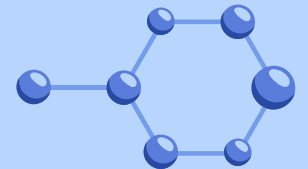


-Effects of Aluminum Nitrate on C-elegans

Amudha Senthilkumar



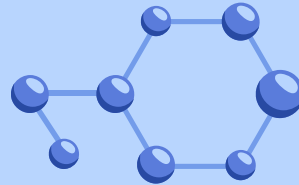
Background

- aluminum nitrate is a harmful water contaminant, especially for aquatic life
- nitrate contaminates water
- is a compound that would easily dissolve into the agar plates
- C-elegans are a great model organism
- both of these together would allow for an ideal experiment

Question/Hypothesis

-The effects of water contaminants, like aluminum nitrate, on C-elegans by studying quantity over time

-**changed hypothesis:** increased aluminum nitrate consumption will decrease the population/lifespan of the C-elegans



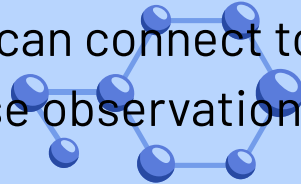
Materials

- N2 wild type
C-elegans
- NGM Lite Agar
- Petri Dishes (x3)
- Aluminum nitrate



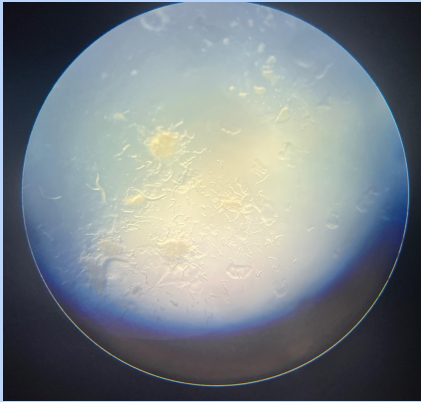
Procedure

1. Pour NGM lite control plate
2. Pour NGM lite .1 g aluminum nitrate plate
3. Pour NGM lite .5 g aluminum nitrate plate
4. All should be inoculated with e-coli
5. Incubate plates for at least 24 hours, then chunk scalpel of Wild Type C-elegans plates
6. Let incubate, and observe changes each block
7. Look for things like changes in size, length, appearance overall that can connect to changes in growth
8. Record these observations, to produce final analysis

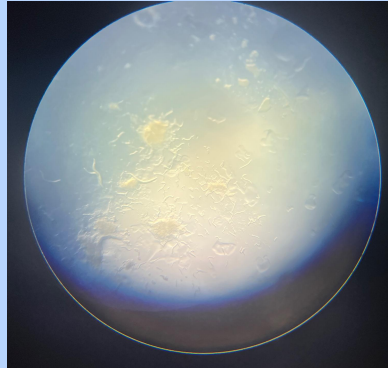


Day 1

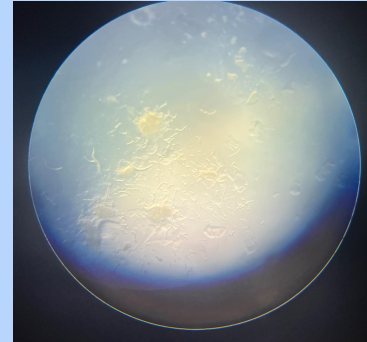
Control group



Aluminum nitrate .1



Aluminum nitrate .5



Day 4

Control group



Aluminum nitrate .1

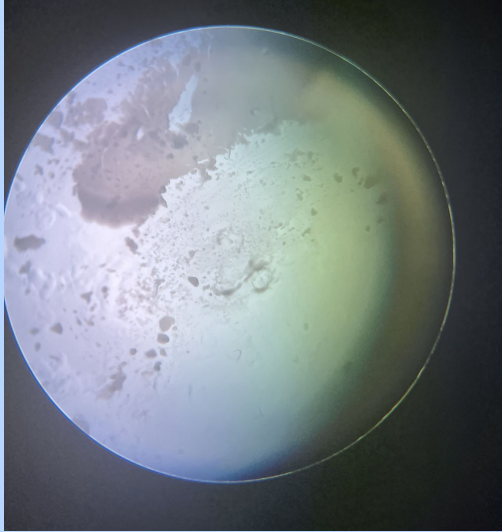


Aluminum nitrate .5



Day 7

Control group



Aluminum nitrate .1

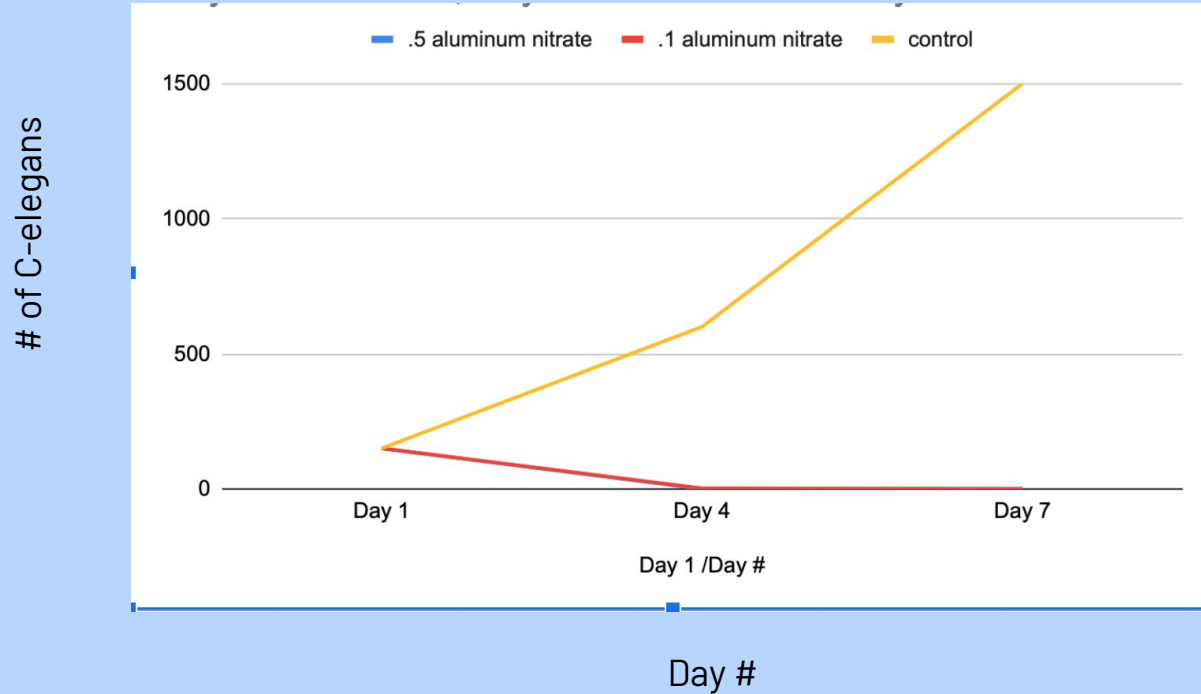
-no worms were to be seen on the plates

Aluminum nitrate .5

-no worms were to be seen on the plates

Data

of C-elegans over days





Summary/Analysis

- As concentration of aluminum nitrate increased, C-elegans decreased significantly
- Aluminum nitrate is a significant factor in water contaminant and can affect bodies of humans severely
- Results support my hypothesis because C-elegans were severely affected (in a negative manner) by the aluminum nitrate

