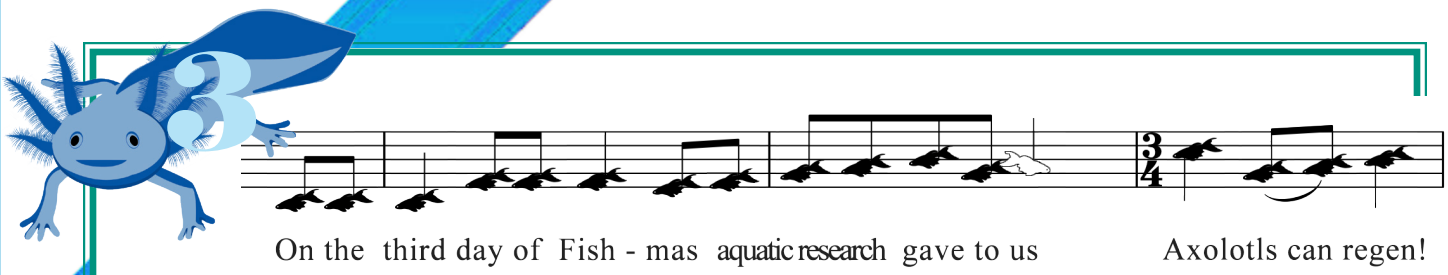
THE 12 DAYS OF FISHMAS

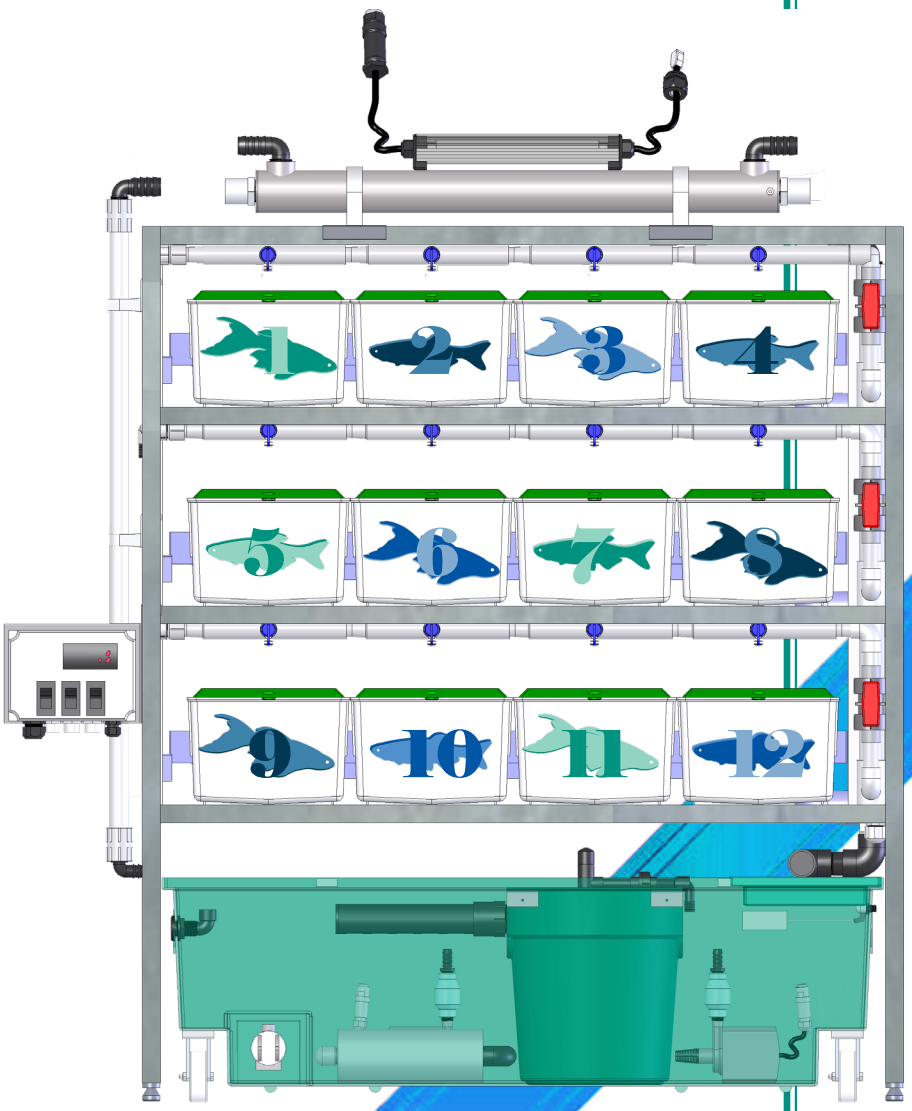


On the third day of Fishmas, aquatic research gave to us:
Axolotls can regen!

The axolotl, a species of salamander native to Mexico, has the amazing ability to regenerate almost all parts of their bodies. It also has ten times more DNA than humans. Researchers at the University of Kentucky succeeded in mapping the enormous genome of the axolotl, a huge undertaking that will help all researchers studying the axolotl's regenerative capabilities, including Dr. Catherine McCusker of the University of Massachusetts. Her research seeks to understand cell communication and cellular reprogramming during limb regeneration.

- "How [do] connective tissue cells interact with each other to generate the blueprint of the missing structure?"
- "What molecular cues in the regenerative environment activate the process of dedifferentiation [in which adult cells become progenitor cells]
- How [are] these cells... reprogrammed to generate the new structures?"

Answering these questions in the axolotl is essential for developing human regenerative therapy for spinal cord injuries, stroke, and more.



Read more:

- https://www.worldhealth.net/news/axolotl-master-regeneration/
- https://www.quantamagazine.org/axolotl-genome-slowly-yields-secrets-of-limb-regrowth-20180702/
- https://www.umb.edu/mccuskerlab/research
- https://www.umb.edu/news/detail/studying_regenerating_salamanders_at_umass_boston