

The Transcriptomic Profile of the Inner Ear Semicircular Canals

(Does gravity affect genes for balance and equilibrium?)

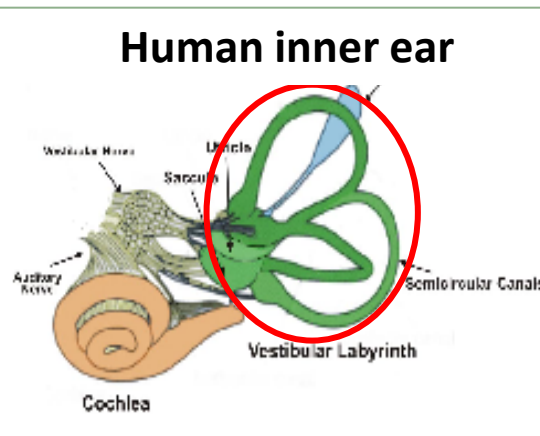
Balance



Equilibrium

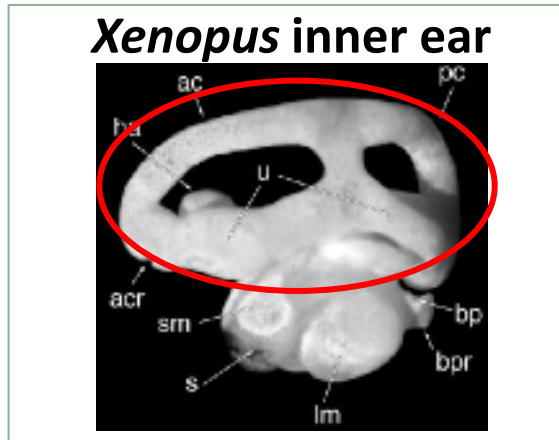


1. The **Vestibular System of the inner ear** detects **gravity**, and maintains balance and equilibrium



2. Does **altered gravity** affect genes of the vestibular system?

3. Use *Xenopus*, an organism that has adapted to space flight and hyper G (5G)



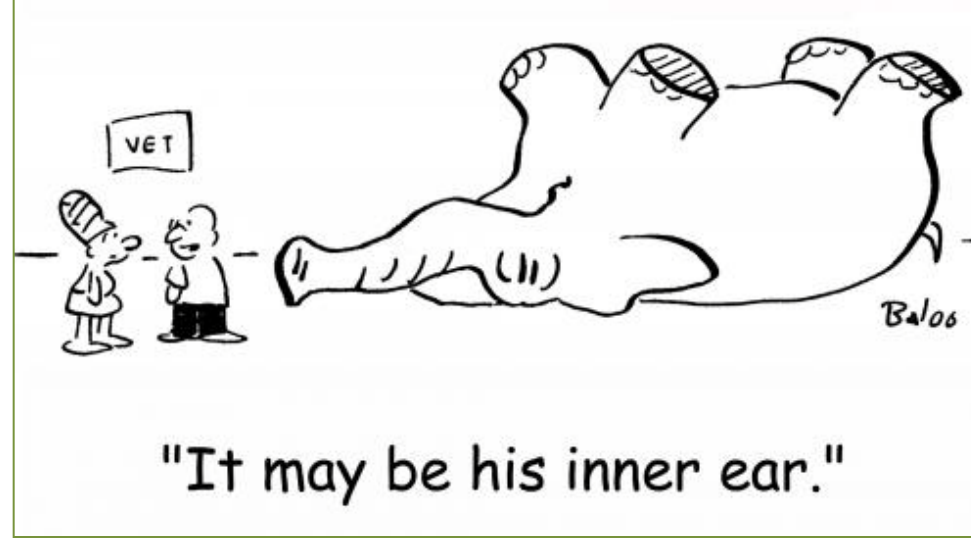
4. GeneChips (Microarrays)



Microarrays can profile 1000s of genes

1. identify inner ear vestibular genes
2. determine whether exposure to altered gravity environments affects gene expression

Thanks for listening!



- **Research Support**

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