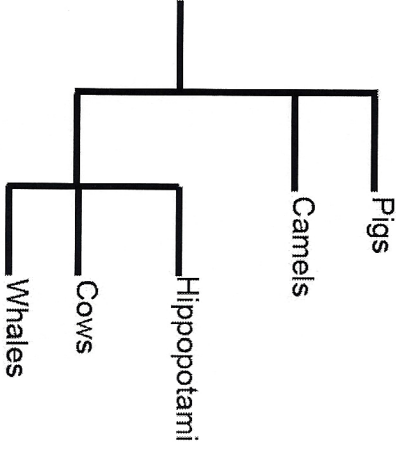


IS IT COUSINS?

By Dr. Rash Shoushtari, M.D.
Doctor of being awesome.



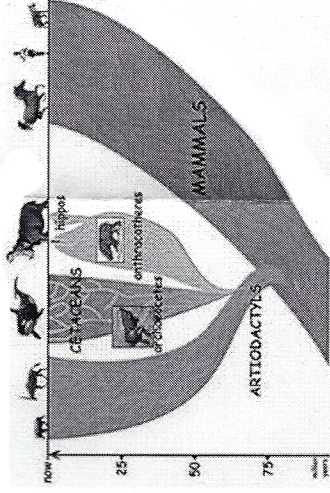
The DNA of genes is comprised of two parts, those which are code for protein, and those which produce nothing and are referred to as "junk". The "junk" DNA contains a special sequence called retroposon. Since retroposon is inherited over generations, the study of the existence of retroposons indicates whether animals evolved from a common ancestor.

BUT HIPPOS LOOK ALOT MORE LIKE PIGS, HOW DO WE KNOW THEY ARE RELATED TO WHALES?

YES, THEY ARE.

Scientists have long believed that hippo's closest relative is the pig, based on morphology studies. This hypothesis was rejected over twenty years ago when molecular analysis, and later DNA analysis, showed that hippo's closest relative is in fact the whale.

Their common ancestor was an aquatic mammal that disappeared with the ice age some 50 to 60 million years ago. This descendants of this animal are divided into two major groups called the cetaceans (whales) and the anthracotheres (hippos).



CETACEANS

- *88 species including whales and dolphins
- *Mammals that are most adapted to aquatic life
- *forelimbs have evolved into flippers
- *The are divided into two major groups. Mysticeti which do not have teeth such as the Baleen Whale and odontoceti which have teeth such as sperm whales.

ANTHROCOTHERES

- *Hippo is the only remaining species.
- *Disappeared 2.5 mill years ago
- *contained over 37 species
- *Lived all over the world except South America and Oceania
- *May have gone extinct due to competition from other artiodactyls.