

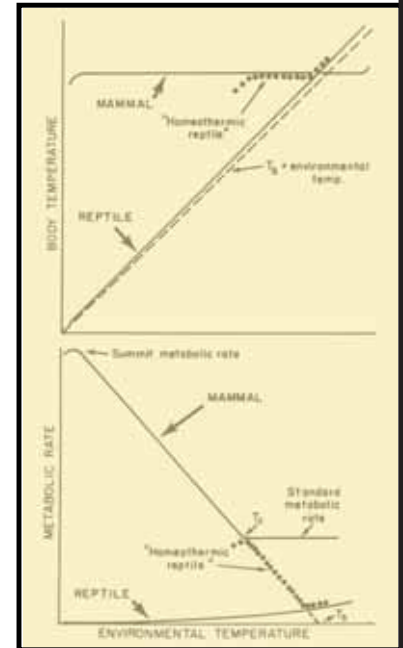
PROFESSOR TONY HULBERT



METABOLISM & AGEING

Professor Tony Hulbert studies the physiology and biochemistry of animal species. He is interested in what determines the different metabolic rates of different species as well as the mechanisms determining their rate of aging and the maximum lifespans that are so distinctive of the species.

He has found that the fats that make up cell membranes of animals are important determinants of the metabolic rate of animals. That warm-blooded species have polyunsaturated membranes while cold-blooded species have membranes that are monounsaturated. Similarly, small species with high metabolic rates have cell membranes that are polyunsaturated while large species with low metabolic rates have monounsaturated membranes.



Current research questions include:

- ◆ Are the hydrocarbons breathed out by animals a good measure of their rate of aging?
- ◆ How does calorie-restriction extend lifespan of animals?
- ◆ Are there differences in the mitochondrial function of species related to their rate of aging?
- ◆ How does the fat composition of the diet affect the metabolism and performance of animals.
- ◆ Does the fat composition of diet affect the rate of aging and lifespan of different species?



ANIMAL PHYSIOLOGY

