Slow Life, Long Life

A study in 2016 provided _____ that Greenland sharks are the longest-living vertebrates (animals with a backbone) on Earth. A research team used _____ dating technology to figure out the ages of 28 sharks that had been caught in fishing nets in the cold, deep waters of the _____ Sea.

The study data suggested that one of the sharks, a five-meter-long female, was about 400 years old. Marine biologist Julius Nielsen of the University of Copenhagen, who was part of the research team, _____ that although they knew the sharks were unusual, they were surprised to find out just how old they actually were.

It is thought that the sharks' slow pace of life _____ to their long lives. According to the research team, 400 is an approximate age because _____ dating is not accurate. However, the shark could have been any age between 272 and 512. This means it was probably born in the seventeenth century.

Does this same principle explain why humans live so much longer than other mammals? The answer is yes, according to an earlier study conducted in 2014.

The study, _____ in the *Journal of the National Academy of Sciences*, concludes that the slow rate

at which humans and other primates burn calories explains why they grow up so slowly and live so long.

While other mammals with faster metabolisms, such as cats and rabbits, die at _____ young ages, humans and other primates that burn calories more slowly tend to live longer lives.

_____ to Herman Pontzer, lead author of the study and anthropologist at Hunter College in New York, the results of the study surprised the researchers: "Humans, _____, baboons, and other primates expend only half the calories we'd expect for a mammal. Someone with a very physically active lifestyle would need to run a marathon each day just to approach the average daily energy _____ of a mammal their size."

The researchers say studying the _____ between physical activity and energy expenditure may help us better _____ metabolic diseases and obesity.

Pontzer says more research is being conducted on the subject, adding: "Humans live longer than other apes and tend to carry more body fat. Understanding how human _____ compares to our closest relatives will help us understand how our bodies evolved and how to keep them healthy."

MATCH THE MISSING WORDS WITH THE BLANKS

EVIDENCE
RADIOCARBON
NORTH ATLANTIC
COMMENTED
CONTRIBUTES
RADIOCARBON
PUBLISHED
RELATIVELY
ACCORDING
CHIMPANZEES
EXPENDITURE
RELATIONSHIP
UNDERSTAND
METABOLISM

4 IDENTIFY Number the questions in the order they are answered in the article.

- [ ] Why do scientists think Greenland sharks live so long?
- [ ] How did the researchers feel about the shark discovery?
- [ ] What surprised Herman Pontzer and his team of researchers?
- [ ] What is the principle that explains why humans live so long?
- [ ] What was the discovery regarding Greenland sharks? When did it happen?
- [ ] What are some of the facts related to the study?
- [ ] Who conducted the 2016 study? How did they do it?
- [ ] What will Pontzer's study help us understand better?