

### **Module 3F Questions:**

1. Researchers want to examine whether **activity level** is associated with **PPARG expression** in a small sample of mice. Both variables are measured on ordinal or continuous scales, but the relationship may not be linear so they decide to use **Spearman's rank correlation**.

They collect the following data:

Mouse	Activity Score	PPARG Expression
M1	3	6
M2	4	7
M3	5	8
M4	6	9
M5	7	10

Conduct a Spearman's Rank hypothesis, but remember to do the following steps (besides Ho/Ha and the other hypothesis testing steps)

1. **Rank the activity scores** from lowest to highest.
2. **Rank the PPARG levels** from lowest to highest.
3. Determine whether the relationship between activity and PPARG is:
  - positive
  - negative
  - or zero