Each of you is playing the role of the **Basic Research Scientist:**

A **researcher scientist** typically works in the laboratory to design, implement and evaluate experiments in support of a research question. For this scenario, you are working for IN VITRO INC. to develop the **Human Cell Culture Skin Tox Test** that will be used to evaluate the toxicity of chemical and ultimately replace animal testing. You have spent the past 2 years working on this model and are now in a staff meeting with your fellow research scientists to evaluate some of the data and determine if you are ready to make the pitch to the company directors.

The Data:

In the study below, 4 chemicals were tested using the Human Cell Culture Skin Tox Test and compared to the established rabbit skin model and the human patch test (HPT). Each chemical was evaluated in 12 different trials. If more than ¾ of the trials showed toxicity, the chemical was classified as an IRRITANT and if ¾ of the trials did not show toxicity, the chemical was classified as a NON-IRRITANT. *For simplicity, the positive and negative controls are not included in the data, but showed the appropriate responses to validate each trial.*

	TOXICOLOGY TEST		
	Rabbit Skin Test	**Human Skin Test (HP4)**	**In VITRO INC Human Cell Culture Test**
	TEST RESULTS *(based on 12 different trials)*		
Chemical A	IRRITANT	IRRITANT	NON-IRRITANT
Chemical B	IRRITANT	NON-IRRITANT	NON-IRRITANT
Chemical C	NON-IRRITANT	IRRITANT	IRRITANT
Chemical D	NON-IRRITANT	NON-IRRITANT	NON-IRRITANT

Your Questions *(discuss as a group and be prepared to report out your key ideas)*

Question 1:
Discuss your interpretation of the variability within the data from the perspective of a basic research scientist. What general conclusions can you draw from the data?

Question 2:
As a basic scientist who has been charged with developing the in vitro model, do you feel that your new skin test has validity? Why or why not? What would be the next steps you would take after reviewing this dataset?