**Learning Assessment!**

**Wine Profiling by NMR – Ages 18 and older**

*Note: Data collected is anonymous   
and will be used for research purposes.*

1. What did you learn about how NMR spectroscopy can be used to study wine?
2. List 3 chemical components of the wine you learned about from the profiling experiments:
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How will what you learned today influence your future wine selections?

**Learning Assessment!  
Wine Profiling by NMR – Ages 17 and younger**

*Note: Data collected is anonymous   
and will be used for research purposes (with parental support).*

1. **Circle all that apply**: how was the NMR instrument used to study wine today?
   1. to classify wines by region and wine type
   2. to determine the pH of different wines
   3. to understand the chemical components of wine that give it its flavor, aroma, and stability
   4. to determine the cell counts in different wines
   5. to check for wine quality and chemical contamination
2. **Circle all that apply**: which of the following chemicals can be found in many wines?
   1. halogenated acids, such as hydrochloric acid
   2. alcohols, such as ethanol
   3. sugars, such as glucose
   4. amino acids, such as proline
   5. organic acids, such as acetate
   6. organic solvents, such as chloroform
3. Short answer: What do you think was the coolest or funnest part of the demo?