

RAMAN SPECTROMETRY OF DNA ISOLATED FROM FRUIT JAMS. **Carla Figueroa**, Kingsley Donkor, Thompson Rivers University, Department of Chemistry, Kamloops, BC V2E 2J1, Canada. (gaby.figue2001@gmail.com)

Rapid globalization of the international food market and the rise of genetically modified food make food quality control processes necessary to bring the best possible products to consumers. This can be done by studying DNA from foods like fruits and its derivatives. This project's aim is to study DNA isolated from fruit jams using Raman spectrometry, a non-destructive analytical technique that provides information about chemical structure, impurity, and molecular interactions in a fast and less expensive way. It can identify a material or distinguish it from others based upon the interaction of light with the chemical bonds of the substance, revealing its "chemical fingerprint". DNA information from fruits is important to learn more about how to improve crops so they are more resistant to disease, insect invasion, or climate change. As a result, fruit DNA can also be compared to other samples to determine if one of them has been altered in a way that might make a crop more nutritious or harmful. Normal and organic strawberry jams were obtained from a local grocery store, and their DNA was isolated using a DNA extraction kit. After the DNA extraction, samples were analyzed using Raman spectrometry to determine their "chemical fingerprint".