

Smart Snack for Kids – IFTSA Competition
Hungry Monster Team



Student Experience Enhancement Fund (SEEF)
Faculty of Agricultural and Environmental Sciences



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Project Overview

Hungry Monster is a vegan, gluten-free, and sustainable chocolate-flavored tart that kids can have fun with by filling the tart shells with the filling and then decorating with little eyes and teeth to make their own monster tarts. The *Hungry Monster* project started when our team began to work on a new food product in our Food Product Development (FDSC 405) class where we were tasked to develop a food product following certain guidelines. With that in mind, our team developed a carob tart that was vegan, gluten-free, sustainable, and made with healthful ingredients, like silken tofu and chickpea flour. Knowing our product had potential, we decided to enter this product into the Smart Snacks for Kids IFT competition as it would be easiest to adapt to the FDA requirements for a Smart Snack. We chose to make it more fun by allowing kids to play with their food by filling and decorating the tarts themselves, which also allowed us to make it shelf-stable. We also chose to increase the number of sustainable ingredients used, so we could promote this as a sustainable product which helps us to target the eco-conscious market.

Food Laboratory Work

Since we began our project last semester, we formulated a solid prototype which needed to be further optimized. In the meantime, we started working on our preliminary report which was submitted to IFT on February 1st.

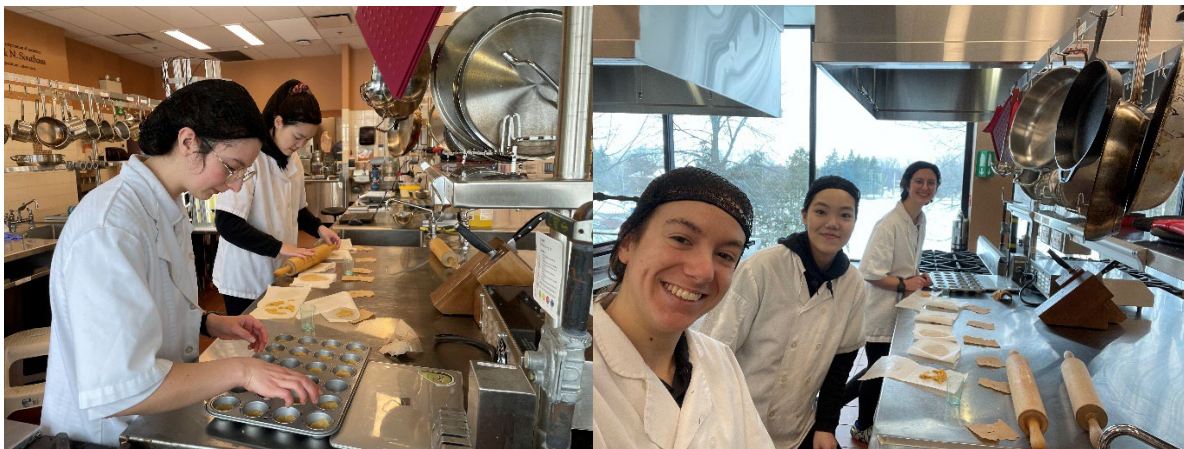


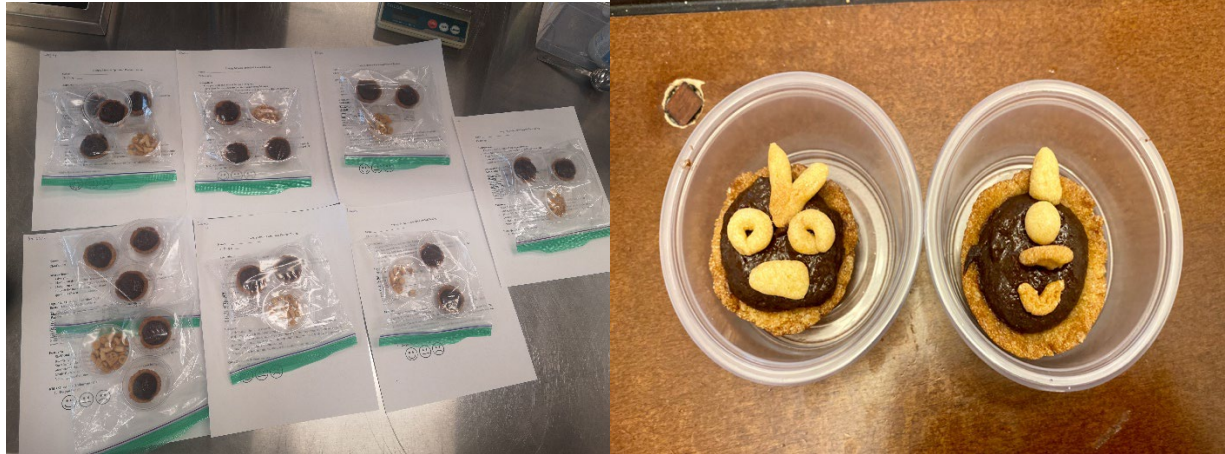
Figure 1- From Left to Right: Cassandra & Jiachen Figure 2- From Left to Right: Valérie, Jiachen & Cassandra

From February to April, we worked on optimizing our product to make sure that it would be ready for the IFT competition in July. We did many formulations by increasing and decreasing certain ingredients to achieve the perfect ratio of both taste and texture without neglecting the nutritional quality of our product.



In the month of April, we did three sensory evaluations: one for the crust, one for the filling and one for the final product. Both the crust and filling were performed in the sensory lab of the Mac campus with students from the campus to evaluate the overall liking, the purchase intent, as well as the taste of our product component. Based on those results, the final formulation was selected as the final recipe before performing the third sensory evaluations. For the final product sensory evaluation, some samples of the final product were sent with a questionnaire to the children of several professors in the food science department to evaluate the overall liking and taste of our product.





After all sensory evaluations were performed, we were ready to submit our final report to IFT which was the last step before the competition in Chicago in July.

Sustainability Food Systems Solution Research Fair

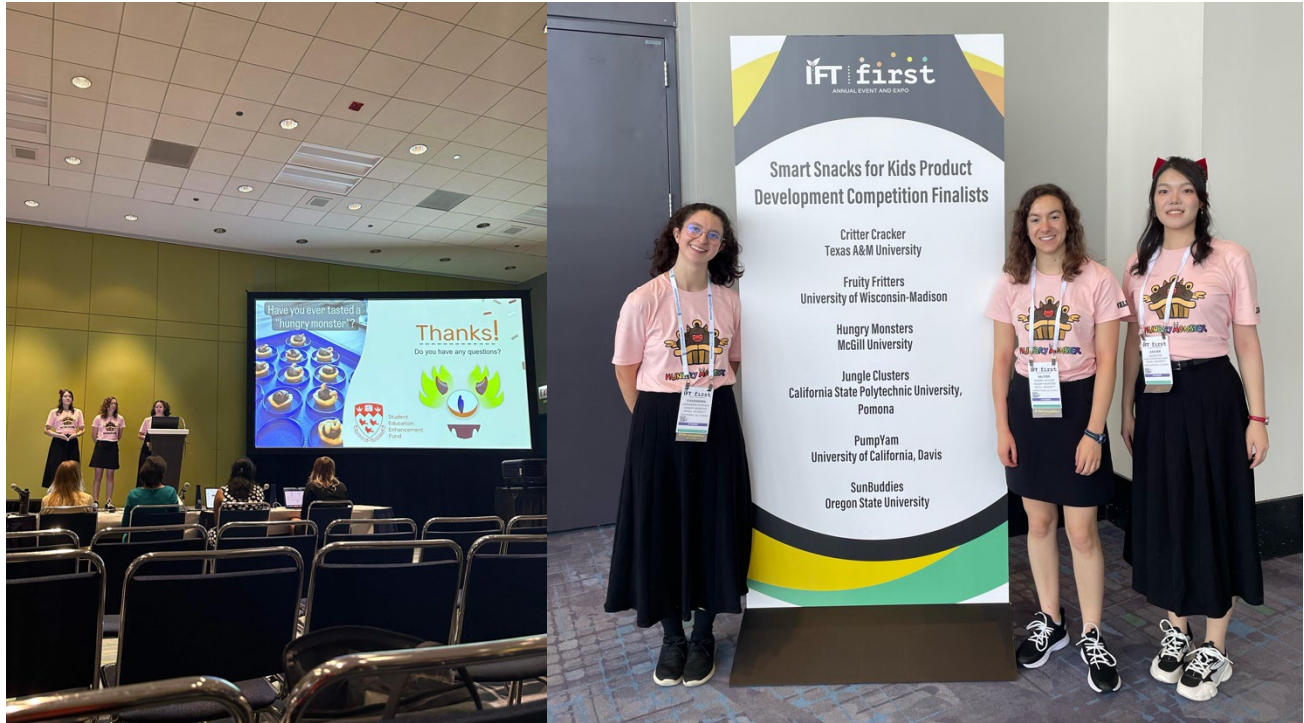
On March 9th, our team was invited to present at the Sustainability Food Systems Solution Research Fair event happening in downtown McGill where we had the opportunity to showcase our product and educate students on sustainable ingredients. This event also gave us the chance to receive relevant feedback on how to improve our product even more.



Figure 1- From Left to Right: Cassandra, Valérie & Jiachen

IFTSA Competition

On our first day at IFT, we presented our product to the judges, as well as a general audience, made up mainly of food science professionals. Our presentation went incredibly well, and we were able to respond to the majority of the judges' questions with no issues.



The second day, we woke up early to make our product for the tasting which was later that day; we presented the judges with our product in the same way that kids would be eating the product, as well as showing them the packaging that we had printed and the 3D model of the food tray prepared with 3D printing technology. The judges really enjoyed our product and were very impressed with the packaging as we were the only group to have really considered that aspect. Our last event related to the competition was the closing ceremony, which was also on the second day of the IFT event. The results of all the IFT Student Association's (IFTSA) competitions were revealed, along with the finals for the College Bowl. During this event, we had the pleasure of being announced as the first-place winners of the Smart Snacks for Kids Competition. This was an incredibly exciting opportunity for us, especially after all the hard work we had put into our

product. Outside of the event, we also had the chance to go to the PepsiCo Meet & Greet and visit the IFT First expo. This was a great opportunity for us to network, while also learning lots of new and interesting facts, as well as about new products of which we hadn't previously heard.



Overall, attending IFT FIRST allowed us to network with professionals in the food industry which can lead to fantastic future opportunities. Besides, it provided us with a great chance to acquire a broader perspective on food science with the attendance of the largest business-to-business food innovation expo in the world.



Conclusion

Entering the Smart Snacks for Kids IFT competition allowed us to further develop and optimize our food product, while also learning more about the professional aspects of food product development, such as the quality assurance, food packaging, and marketing aspects, which are important for developing actual experience in research and development (R&D), which we don't have chances to get in touch deeply in our courses. Food product development is a major area of the food industry and being able to further our practical experience by working in the food labs and experimenting with new variations of the recipe, which was developed last semester, allows us to see how actual food product developers may alter their current food products to make new products that they can sell on the market, such as Oreo developing new flavors. While we had courses in both quality assurance and food packaging, we didn't have the chance to receive any practical experience by applying this to an actual product which is being developed. But with this competition, we were able to work on designing our own packaging, including designing our own logo, slogan, and developing the hazard analysis and critical control point (HACCP) plan needed for our product.