DIETETIC INTERNSHIP NEWSLETTER

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THE UNIVERSITY OF MAINE 1865

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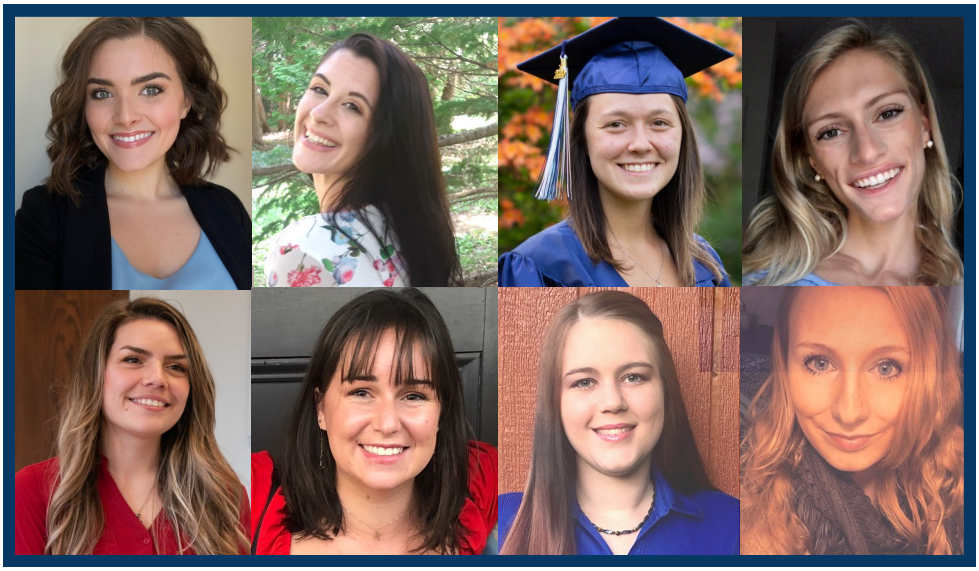

Dietetic Interns, Class of 2020 *(from left to right)*
Top Row: Emily Lavertu, Kayla Parsons, Brooke Hardy, Holly Corcoran;
Bottom Row: Leigh Neptune, Maegan Perrault, Michaela Mizell, Alexandra James.

Letter from the Director

Hello preceptors, faculty, interns, and alumni, and welcome to the 2020 edition of the UMaine Dietetic Internship Newsletter. I have so much to share with you! First, my sincere thanks go out to all of the preceptors, site coordinators, directors and administrators who have been so accommodating in hosting our interns during the COVID-19 pandemic. Many of you advocated for our interns at a time when sites were uneasy about accepting students. Most of our interns would not have been able to complete their supervised practice without your intervention. We are truly grateful, especially as we see internship programs in many parts of the country reeling from being unable to place interns due to the pandemic.

My thanks also go out to all the interns who have been in supervised practice since 2020 began. Little did we know how challenging this year would be. These interns rose to the challenge with poise and dedication. Thanks to their flexibility and persistence, all 10 interns will be able to or have already completed their supervised practice. You represented the University of Maine extremely well and should be proud of your accomplishments.

While we have faced many challenges over the past seven months, we are still going strong with four interns successfully completing their internship in August of 2020 and six, who will be completing their rota-

Continued on next page

Letter from the Director, continued...

tions in December of 2020. For the first time, we will hold our pinning ceremony virtually on December 11 to honor our graduating class of interns. Preceptors who hosted interns from the period of May 2020 to December 2020 are invited to attend the virtual ceremony. If you have not received an invitation to attend but would like to, we encourage you to contact myself or Julie Milan, and we will share the link. All are welcome!

Semi Annual Pinning Ceremony Goes Virtual!

The Semi Annual Pinning Ceremony, a new tradition that began in 2019 for UMaine interns, marks graduates' entrance into the dietetics profession. The ceremony includes awarding graduates a certificate of completion for the internship, as well as the RDN pin (to be worn when they pass the registration exam). Graduates' family members and UMaine faculty attend the celebration, which is usually followed by drinks and hors d'oeuvres.

This year, the ceremony will be held virtually due to the pandemic. Interns, their family members, UMaine faculty, and preceptors will attend via Zoom to honor graduating interns from the Class of 2018. Congratulations graduates!

Semi Annual Pinning Ceremony : *This year's ceremony will be held on Friday, December 11.*

Interns Advocate for Food-Insecure College Students

Last fall, Sable Altvater, Kalee Tinker, and Natalie VandenAkker were among a group of UMaine interns who decided to tackle an issue affecting many students on college campuses today — food insecurity. As part of the UMaine DI Program's Nutrition Services and Professional Advocacy Concentration Area, interns learn to advocate for their profession, their future patients, and themselves. Using food insecurity as the focus of their advocacy project, Sable, Kalee, and Natalie concentrated their efforts on how to help food-insecure students on the UMaine campus.

As the interns discovered in their initial research for this project, high rates of food insecurity have been reported among college students across the nation. As many as 14.1% to 59% of students are considered food insecure, meaning they have "limited or uncertain access to nutritionally adequate, safe, and acceptable foods that can be obtained in socially acceptable ways".[1] The increasing presence of food pantries on college campuses is another indication of this emergent problem.[2] Low self-efficacy for cooking nutritious meals, inadequate cooking skills, and low food literacy skills are among the many barriers reported by food-insecure college students. [3,4]

Interns created an e-cookbook for UMaine students with basic recipes for making inexpensive meals, requiring little to no cooking skills.

In the beginning stages of their project, Sable, Kalee, and Natalie corresponded with Lisa Morin, Coordinator of Bodwell Center for Service and Volunteerism and the Black Bear Exchange (food pantry) at UMaine, to gain a better understanding of how to best advocate for food-insecure students on campus. Lisa explained that although many students utilize the food pantry, there is a need for helping these young adults learn how to prepare simple, nutritious and affordable meals. In an effort to fulfill this need, the interns chose to develop and create an e-cookbook with basic recipes for making inexpensive meals that require little to no cooking skills. Another important feature of the recipes is that they are all designed to be prepared using common appliances typically available to college students, including a microwave, crock-pot, or instant pot.

Additionally, Sable, Kalee, and Natalie designed the cookbook with an emphasis on local and alternative food resources that may be easily accessed by students at the Black Bear Food Pantry, as well as the Orono Farmer's Market. Items typically stocked at the campus food pantry include, ramen noodles, canned soups, canned vegetables and fruits, canned tuna, and limited fresh fruits, vegetables and meats. The e-book contains a variety of recipes, such as *Spicy Garlic Salmon, Apple Oats, Instant Pot Baked Ziti, Creamy Chicken*, and more. Information about food insecurity is also integrated within the cookbook to help increase awareness of this growing problem. The finalized version of the book was disseminated electronically to students and members of the university community via social media, including popular university Facebook pages, the Black Bear Food pantry, Orono Farmers Market, and various student apartment complexes. An excerpt of recipes from the e-cookbook may be found on page four of this newsletter.

REFERENCES:

1 Bruening, M., Argo, K., Payne-Sturges, D., Laska, M.N. The struggle is real: a systematic review of food insecurity on postsecondary education campuses. *J Acad Nutr Diet* 2017, 117(11), 1767–91.

2. El Zein, A., Shelnutt, K.P., Colby, S. et al. Prevalence and correlates of food insecurity among U.S. college students: a multi-institutional study. *BMC Public Health* 2019, 19, 660. https://doi.org/10.1186/s12889-019-6943-6 .

3. Gaines, A., Robb, CA., Knol, L.L., Sickler, S. Examining the role of financial factors, resources and skills in predicting food security status among college students. *Int J Consum Stud* 2014, 38 (4), 374–84.

4. Watson, T., Malan, H., Glik, D., Martinez, S. College students identify university support for basic needs and life skills as key ingredient in addressing food insecurity on campus. *Calif Agric* 2017, 71(3), 130–8.

Recipes from the *Public Policy Cookbook*

By Sable Altvater, Kalee Tinker, and Natalie VandenAkker

Spicy Garlic Salmon

Estimated Time: 15 minutes

Ingredients

¾ Tablespoon minced garlic

1 Salmon filet halved

1 Teaspoon honey

¼ Teaspoon red pepper flakes

½ Lemon sliced

1 Tablespoon butter

Directions

1. Rub garlic onto salmon halves
2. Transfer salmon halves onto aluminum foil
3. Drizzle halves with honey and red pepper flakes
4. Top salmon with thin lemon slices
5. Dot with butter
6. Crimp foil shut and cook on high pressure for 8-10 minutes

Apple Oats

Ingredients

1 Cup Steel Cut Oats

1 ½ Cup Water

1 Cup Milk

2 diced Apples

Pinch of salt

Maple Syrup

1 Tablespoon Nutmeg (optional)

Directions

1. Add all ingredients to the crockpot and stir to combine.
2. Cook on low for 5-6 hours.

Tip: you can add additional toppings such as nuts or replace the apples with any frozen fruit!

New Online Platform for Internship Evaluation Forms

Last fall, the UMaine DI Program began the process of transitioning from using paper and electronic evaluation forms to web-based forms through an online platform called Trajecsys. A clinical management and tracking system, Trajecsys is used nationwide by many health-related internship programs.

The first group of interns to be evaluated using the web-based forms began this summer, 2020.

The shift to the new online platform was timely especially with the pandemic occurring this spring.

The Role of Red Raspberries on Inflammation, Lipid Metabolism and Vascular Function as Related to the Metabolic Syndrome in the Obese Zucker Rat, a Model of the Metabolic Syndrome ~ *Natalie VandenAkker's Doctoral Dissertation*

What is the topic of your research, and why did you choose to pursue this area?

My thesis topic was to explore the role of red raspberries on inflammation, lipid metabolism and vascular function as related to the Metabolic Syndrome, in the obese Zucker rat, a model of the Metabolic Syndrome, under the tutelage of Dr. Dorothy Klimis-Zacas.

I started my educational path with an interest in biology and business. My pursuit of a master's degree in biotechnology led me to an interest in research. I wanted to further my academic career with a doctoral degree where I could connect my strong interest in biology with my passion in nutrition through research. From my experiences, I have come to live by two quotes: "Let food be thy medicine and medicine be thy food", said by Hippocrates; and the second by Thomas A. Edison, "The doctor of the future will give no medication, but will interest his patients in the care of the human frame, diet and in the cause and prevention of disease". My goal is to be at the forefront of nutrition research and education to make a difference in one's overall health.

Would you give a brief summary of your research, including some background information, methods and major findings?

The Metabolic Syndrome is a constellation of conditions consisting of obesity, elevated triglycerides, reduced high density lipoproteins, elevated blood pressure and fasting glucose. These abnormalities directly link to cardiovascular disease and type 2 diabetes. A patient is diagnosed with the Metabolic Syndrome if they have at least three of these risk factors. A diet rich in fruits and vegetables has been documented to have various health benefits. Red raspberries, a commonly consumed berry, are unique to other berries due to their distinct phytochemical composition. There is a lack of health-effect studies related to red raspberries and the Metabolic Syndrome. So, we wanted to explore if red raspberries could improve risk factors associated with the Metabolic Syndrome.

The goal of this study was to examine the role of red raspberries as a potential candidate to target inflammation, lipid metabolism and vascular function associated with the Metabolic Syndrome. For this study we used the obese Zucker rat, a genetic model of the Metabolic Syndrome. At 8 weeks of age, the obese Zucker rat shares similar characteristics to that of a human with Metabolic Syndrome. The obese Zucker rats and their lean littermates were assigned to a control or an 8% (w/w) red raspberry enriched diet, consumption equivalent to a daily human dose of approximately a cup and a half, for 8-weeks.

A red raspberry enriched diet attenuated inflammation in the plasma, liver and adipose tissue, corrected plasma lipid profile and lipid metabolism of the liver and restored vascular function of the dysfunctional aorta in the obese Zucker rat.

What are some limitations and implications for your research?

One limitation is the translation of data to humans due to minor differences when compared to an animal model.

Based on your findings and a review of the current literature, what advice or recommendations would you give to the general public?

There is a high prevalence of the Metabolic Syndrome globally, and it is expected to increase. The Metabolic Syndrome increases morbidity and mortality. This study suggests that red raspberries may be used as a non-pharmacologic treatment in efforts to alleviate risk factors associated with the Metabolic Syndrome. Incorporating red raspberries into an individual's diet may be recommended to prevent and/or reverse specific risk factors of the Metabolic Syndrome without suffering from the harmful side effects and financial burden of traditional prescriptions.

Natalie VandenAkker
Doctoral Candidate & Senior Dietetic Intern
University of Maine

Natalie graduated from Worcester State University with a bachelor's degree in biology and minors in chemistry and business. In 2015, she graduated from Worcester State University with a master's degree in biotechnology. While earning her degrees, she became certified as a personal trainer and nutritional specialist. Her professional experience in research began in 2014 at a pharmaceutical company and continued at a biotech start-up. Natalie is currently a candidate for the Doctor of Philosophy degree in food and nutrition sciences and a senior dietetic intern at the University of Maine with an anticipated graduation date of August 2021. An article generated from Natalie's thesis was published in Nutrients in 2019[1], and two additional manuscripts have been accepted for publication — one to the Journal of Berry Research, and the other to the Journal of Medicinal Food .[2,3] She is currently preparing two more manuscripts for future publication. Congratulations, Natalie!

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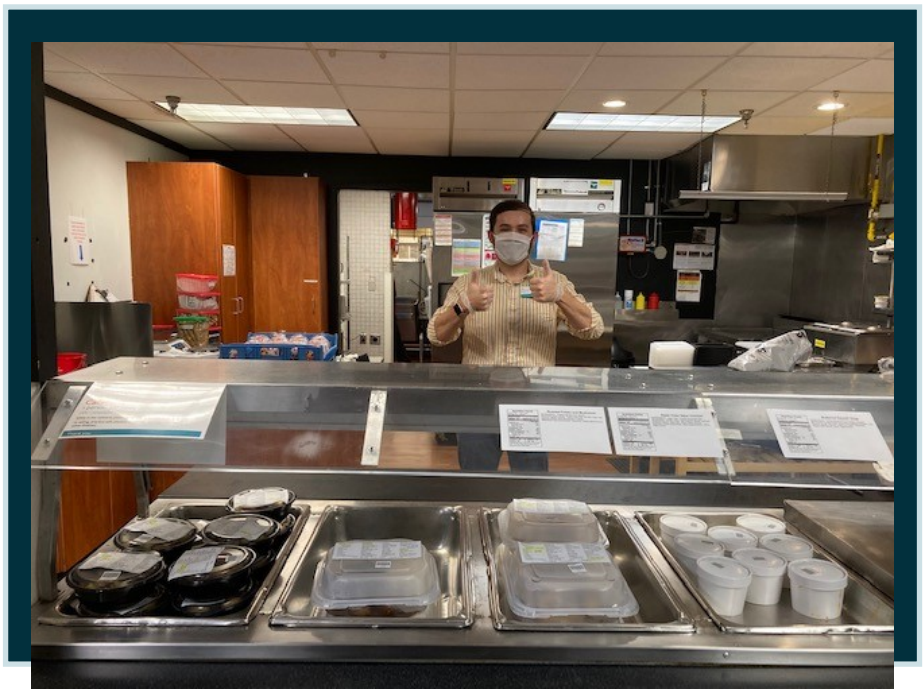
2 VandenAkker, N., Vendrame, S., Tsakiroglou,P., Klimis-Zacas, D. Red raspberry (Rubus idaeus) consumption restores the impaired vasoconstriction and vasorelaxation in the aorta of the obese Zucker rat, a model of the Metabolic Syndrome. Journal of Berry Research

3 VandenAkker, N., Vendrame, S., Tsakiroglou,P., McGilvery, M., Klimis-Zacas, D. Whole red raspberry (Rubus idaeus) enriched-diet is hepatoprotective in the obese Zucker rat, a model of the Metabolic Syndrome. Journal of Medicinal Food

~Interning During the Pandemic~

Senior dietetic intern, Kris Michaud, created a theme-based dinner meal during his foodservice and management rotation this fall at Northern Light Health, AR Gould Hospital!



Stay Connected with the UMaine DI Program!

Send alumni updates to:

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Dietetic Internship Program

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