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Meet the Student Spotlights: Tiffany Kim, MSTP and Eshani Goradia, MS4!

Tiffany Kim, MSTP

Your past: Where did you grow up? What were you interested in while growing up? Was medicine always the field for you?

I grew up on Long Island. I think I always leaned towards the biomedical sciences, and I somehow ended up deciding I liked medicine 😊

Your present: What are your hobbies? What activities do you do to help you relax and cope with the stress of medical school and life in general? How have they helped you deal with these stressors?

I love baking: I find the process very soothing, and it lets me shut off my mind. I also like playing the piano, especially when I'm really tense, but I don't always have access to one. I also love stories, whether they be in the form of books or shows, because they help me step out of my world with my problems and enter a different world with someone else's problems.

If you are comfortable doing so, can you talk a little bit about your interest in cooking and inspiration for your recipes? Outlook on nutrition and advice for others?

I always loved watching cooking and baking shows growing up. I remember going to my grandma's house, watching Food Network with my sister, and then trying to make some of the things that we had seen. When I cook or bake, I usually get inspiration from the foods I ate growing up or from the shows that I watched, and I like trying to fuse different foods or flavors that normally wouldn't be associated with one another.

In terms of nutrition, in college, I got really caught up in all the "food rules" that people would post on social media, but I've learned to take a step away from them, and I just try to have a balanced diet while also eating whatever I want.

Your future: What are you looking forward to in the near-future? What specialty are you interested in pursuing?

I'm taking my qualifying exam next month, so I'm excited for when that will be over.

During M2, I really enjoyed MBB, so right now, I'm very much interested in neuro, but I'm also really open to anything.

Eshani Goradia, MS4

Your past: Where did you grow up? What were you interested in while growing up? Was medicine always the field for you?

I grew up in Princeton, NJ. I've always had a passion for learning and enjoyed my science classes and laboratories. I got involved in food science research in high school which sparked my interest in research in general. I realized medicine was the field for me quite early on as I used to sing and volunteer at nursing homes. I loved the medical environment and spending time with patients. For me, medicine was the perfect balance of the subjects I loved and the environment I saw myself working in, in the future.

Your present: What are your hobbies? What activities do you do to help you relax and cope with the stress of medical school and life in general? How have they helped you deal with these stressors?

I love singing, dancing, painting, henna, playing instruments! Art has been my way of coping and relaxing since I was very young. I also enjoy cooking. For me, trying out recipes is like science experiments (cleaning, however, I could do without :p).

If you are comfortable doing so, can you talk a little bit about your interest in cooking and inspiration for your recipes? Outlook on nutrition and advice for others?

My interest in cooking developed largely in medical school when I was further from home and had limited food options as a vegetarian. Ordering food every day was hard on the wallet and not healthy at all. I had always enjoyed watching cooking shows and my parents cook, however, I usually just ate. As I started trying the recipes my mother would send me, I found it not only fun, but also therapeutic. It was also easier for me to log what I ate and meet my weight-loss goals by preparing my own meals.

My outlook of nutrition is to focus on eating a balanced diet. I try to eat about 40g of fat and 80g of protein per day in addition to carbs. I try to limit processed foods and salt. In general, I was told, everything in moderation! Even moderation ;). I do look forward to learning more about nutrition in the upcoming years to improve my own and also help future patients.

Your future: What are you looking forward to in the near-future? What specialty are you interested in pursuing?

I am looking forward to beginning my residency in Internal Medicine next year. I am very interested in nutrition and nutrition education and foresee that as a part of my future career.

Recipe Corner



The Mediterranean diet has become a regular audience in medical education and practice the past few decades, often tacked onto the popular advice to lose weight. The diet entails high intake of vegetables, legumes, fruits, nuts, grains, fish, seafood, olive oil and even a moderate intake of red wine. It has been associated with a lower risk of mortality, cardiovascular disease, metabolic disease and even cancer. However, making the switch from a cultural diet to the Mediterranean diet can be quite shocking. But it does not have to be! Following is an Indian street food recipe that falls within the guidelines of the Mediterranean diet. Remember, as with every change, being mindful of how a diet switch can be for the patient and for the self is important. Make small sustainable changes, and you will be much more likely to stick with them.

Chickpea Chaat

Ingredients

1 can of chickpeas, *drained and rinsed*
½ a tomato, *deseeded*
½ red onion, *finely diced*
½ cup cucumber, *deseeded and diced*
½ cup fresh cilantro (may substitute with mint)
3 tablespoons lime juice (may substitute with lemon juice)
½ teaspoon cumin powder
A pinch of salt
½-1 serrano chili, *finely chopped (optional)*
1 ½ teaspoons chaat masala
¼ red chili powder *(optional)*

Instructions:

Mix all the ingredients together, and you are good to go! You may add some low-fat yogurt for an extra layer of deliciousness.

Can eat on its own as a salad or as a side to a pita sandwich!

Serves 4.

Total time: 15 minutes.

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Research Piece

Food is an important part of everyday life and a major factor in our health. Many studies have been conducted regarding the risks and benefits of diets or restricted eating, most of which conclude that these behaviors are counterproductive to their goals. However, a new outlook is emerging which suggests that eating healthier foods can benefit not only physical but also mental health. A study conducted in Australia showed a relationship between increased fruit and vegetable consumption and psychological well-being. Factors such as happiness, life satisfaction, and well-being improved within 2 years of making these dietary changes (Mujcic and Oswald, 2016).

In times of stress or negativity, many people will seek out “comfort foods” to boost their moods. A 2014 study showed that though “comfort foods” can significantly improve mood following such events, this effect can also be achieved by eating other “non-comfort” or neutral foods (Wagner et al. 2014). Therefore eating happiness does not only occur when eating “comfort” or unhealthy foods. Another study conducted in 2017 built on these foundations to show that eating vegetables led to the highest levels of eating happiness in the moment. Eating unhealthy foods did not lead to an increase in eating happiness compared to healthier options like fruits or vegetables. Moreover, snacking was not shown to have any additional psychological benefits compared to other meal types such as dinner (Wahl et al. 2017). Overall, these studies highlight the importance of food to our well-being, and show that healthy eating habits have both short and long term benefits.

But are physicians trained to advocate for healthy eating and guide their patients to adopt healthier lifestyle choices? A systematic literature review on nutrition in medical education across different countries showed that most medical school curricula do not adequately incorporate nutrition. As such, medical students are not taught on how to provide nutrition care to patients despite the importance of nutrition to health and well-being (Crowley, Ball, and Hiddink 2019). Medical students themselves also reported feeling ill prepared to manage patients for which nutrition plays an important role (Crowley, Ball, and Hiddink 2019). It is therefore vital that medical schools adapt to include nutrition education in order to enable future physicians to provide high-quality care to their patients.

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Nutrition Article - Food for Thought!

The phrase “you are what you eat” has been popular, but the gravity of its truth has not been comprehended. In the United States, more than 60 million people are affected by diseases of the digestive system. This results in an annual economic impact of \$141 billion. This doesn't even account for all the other diseases that originate with poor gut health [1]. According to the American College of Lifestyle Medicine, poor diets are responsible for more deaths around the world than any other risk factors. Nutrition education is barely existent in medical training and there is expectedly a knowledge gap in the field of clinical nutrition amongst physicians. This is alarming because healthy eating can help prevent, reverse, and treat many chronic diseases including hypertension, heart failure, high cholesterol, heart disease, diabetes, COPD, arthritis, Alzheimer's, CKD, depression, IBD, and more. Despite the immense power of diet, strategies to apply food as medicine is not focused on as much as it should be in the medical community. Food is a powerful treatment and is the foundation to the overall health of patients. Using the right food as medicine could save billions of lives and dollars.

Despite excelling in acute emergencies and surgeries, modern day western medicine yields poor outcomes when it comes to optimizing health and preventing disease. Hippocrates, the father of western medicine, believed that the body, mind, and spirit are inseparable in health and disease. Somewhere the medical community has forgotten his teachings, as medical students are often trained with the understanding that health is largely determined by the genes we inherit. The exciting field of nutritional genomics as well as advances in research have shown that our environments play a greater role in the expression of our genes and that nutrition derived from food can directly influence gene expression and cellular function; however, our understanding and treatment of disease lags behind [1]. Our bodies are exceptional at healing themselves and utilizing nutrients as medicine when given the opportunity to do so. Modern day drugs and treatments try to target a single pathway when at any given moment there are trillions of pathways and metabolic processes occurring in our body. In the process, we treat a singular symptom, not the patient or the cause. We also end up creating imbalance resulting in side effects, many of which may be worse than the initial disease. Like in many other aspects of our contemporary life, our modern minds and bodies are getting used to instant gratification—we withstand long-term consequences for immediate relief.

The obesity epidemic is largely a result of the false information that food companies and physicians have been feeding patients and the general public ever since the industrial revolution. In his Ted Talk, Dr. Neal Barnard discusses the obesity epidemic, emphasizing that over 100 million Americans have diabetes or prediabetes which automatically puts them at risk for amputation, heart disease, and blindness. Dr. Barnard states that humans are eating foods that they are not designed to eat. The design of our teeth itself, far different from a carnivore, makes it obvious that we are naturally born herbivores. The human body and senses were not equipped to hunt and kill prey prior to the stone age. We are slow, have poor senses, moderate sense of smell, as well as weak hearing and vision compared to our animal kingdom counterparts. Dr.

Barnard cited the famous anthropologist, Richard Leakey, who said that eating meat started as scavenging for humans which required tools which was possible in the stone age. Today, we are feeding our bodies food that we are not designed to eat at a rate and quantity only made possible by the industrial revolution. One of the most powerful statements from this talk was that today “half the commercials are for burgers, chicken wings, snacks and the other half is for medicine to reverse the disease” this all causes.

So, the elixir to a long and healthy life is a plant-based diet, where's the evidence? In fact, there is a great deal of evidence that supports the positive effects of switching to a plant-based diet that is void of processed and highly refined foods. In a 2014 study by Dr. Caldwell Esselstyn, researchers once again claimed that plant-based nutrition can arrest and reverse coronary artery disease. They studied the outcomes of 198 volunteers who were counseled in plant-based nutrition as an adjunct to usual cardiovascular care. Adherence to the diet was defined by the participant eliminating dairy, fish, meat, and added oil from their diet. The patients were followed for about 4 years and results showed that of the 198 patients with CVD, 177 were adherent (89%). In this group the rate of a major cardiac event was 0.6%. In the group of non-adherent patients, 13 out of 21 (62%) experienced a major cardiac event [2]. Other case studies have also shown complete reversal of plaque on coronary angiograms in patients following a plant-based diet [2]. Multiple studies and case reports have shown similar and remarkable results. According to Dr. Esselstyn, a plant-based diet involves avoiding oil, fish, fowl, meat, dairy, caffeine, fructose. One should eat grains, legumes/lentils, fruit, and vegetables—especially green leafy vegetables.

There have also been multiple preclinical and observational studies showing that diet, exercise, and lifestyle interventions may play a role in decreasing disease progression, mortality, and burden for high grade prostate cancer. A large, randomized control trial of a high vegetable diet intervention among prostate cancer patients on active surveillance, the Men's Eating and Living study, will soon be completing analysis [5]. In general, the varied incidence of prostate cancer across the globe suggests that its development likely has some origin in lifestyle and dietary habits. According to a recent review of the literature available on prostate cancer and nutrition, “recent studies reported that the gut microbiota contributes to tumorigenesis in some organs. Diet composition and lifestyle have a direct and profound effect on the gut bacteria. Human studies reported an increase in the abundance of specific gut bacteria in prostate cancer patients” [6].

Evidently, there is much research to be done to truly understand the immense impact of a plant-based lifestyle and nutrition and how it can help in preventing, treating, and even reversing disease. It is essential that we start dedicating time in medical education to learning about nutrition. Physicians should be emphasizing the importance of nutrition for patients and telling them exactly how the food they are eating is impacting them. In one of his lectures, Dr. Campbell states that nutrition research funding is nearly nonexistent and that none of the NIH branches are focused on nutrition even though it can treat disease more effectively than all the pills and procedures combined. How long will we wait for governments and big corporations to open their eyes and see how the highly processed and refined foods as well as the animal derived foods are hurting society? Will our health be more valuable than the food and restaurant industry? Or will we take matters into our own hands. Do we have to wait for 1000 studies to come out to show us the beneficial impacts of a plant-based diet and healthy lifestyle? Do we

need 1000 more studies to show us the damage our current diets and lifestyle will do? Do we need to fall sick to truly understand the consequences of our own actions? Most of the diseases that are killing us today are food borne illnesses and there is a simple and cost-effective solution. When the answer to many of our problems is in front of us, will we choose to listen?

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Eshani Goradia, MS4

Afra Rahman, MS4

Nisha Godbole, MS3

Sijia Ma, MS2

