# Getting to Know The A4M Faculty Lena Edwards, MD, FAARM

**D**r. Edwards is an internist who is Board Certified and Fellowship trained in Anti-Aging Medicine/Regenerative Medicine and Integrative Cancer Therapy. She is an avid writer, teacher, and speaker on various topics in anti-aging medicine with an emphasis on HPA axis dysfunction and abnormal cortisol states. Dr. Edwards will be speaking at the upcoming A4M American Anti-Aging Conference in Dubai on November 1-3, 2013.

### Why did you become specialized in anti-aging medicine after years of working as an internist?

I spent years training as a conventional internist. I was immediately drawn to Internal Medicine because of intense intellectual and academic rigor it commanded. Unfortunately, once I went into private medical practice, conventional medicine proved to be less rewarding than I had anticipated. Patients were not viewed as individuals but rather as 'numbers', and every treatment recommendation required a prescription medication. Furthermore, the physician is forced to engage in matters completely unrelated to the practice of medicine, such as managed health care. It was only after I chose to acquire additional training in Ant-Aging and Integrative Medicine that I truly regained my passion for practicing medicine. I learned to appreciate and practice being a physician...healer, educator, confidant, and 'co-director' for my patients.

I view what I do now to be 'true medicine'. When I see a patient in my office, my approach is entirely different. The types of illnesses and issues that I encounter are the same. However, my line of questioning is now much more refined and physiologically based, and my treatment approach is very different. For example, when I see a patient who complains of depression, instead of contemplating which particular anti-depressant medication I wish to prescribe, I instead investigate and treat secondary causes of mood disorders such as HPA axis dysfunction, food sensitivities, nutritional deficiencies, inherited disorders of nutrient metabolism, and hormone imbalance. Patients understand this approach may take longer. However, they are willing to invest the time equipped with the understanding that the discovery and treatment of secondary causes of disease is of paramount importance. Furthermore, there are excellent, herbal or nutrient based supplements that can often be used in the interim.

## Why do you think that anti-aging medicine can be relevant to patients of all ages and both sexes?

The term 'Anti-Aging' is a misnomer. This type of medicine is geared not towards the 'reversal of aging'. Rather, the fundamental pillars of Anti-Aging medicine are promotion of patient education, proper identification and treatment of underlying disease, and the application of a multidimensional approach to health maintenance and wellness. These approaches can include restoration of hormone imbalances, evidence based utilization of appropriate vitamins, nutrients, and herbal preparations, individualized modification of diet, stem cell therapies, and others. The ultimate desired outcome (of anti-aging medicine) is to allow patients to achieve healthy and optimal longevity by applying the aforementioned approaches.

### You have done extensive research about HPA Axis and the effects of stress, how can this research be relevant to patients suffering from chronic stress, heart diseases and chronic pain for example?

The human body is the most sophisticated and highly specialized machine ever created. Every organ, every hormone, and every enzyme work seamlessly in concert to ensure optimal function. It is essential that this internal balance, or 'homeostasis', be maintained so that we thrive in a healthy and optimal environment. The brain houses the command center of the stress response. It has complete authority in dictating not only if and when we mount a stress response but also to what extent and for how long. By design, the body can only function under conditions of stress for short periods of time. We make the choice either to 'fight' the stressor we face or to 'flee' from it to survive. The hormonal fluctuations that occur during such periods of acute stress, particularly a rise in cortisol, are life-saving in the short term. However, if left to predominate over prolonged periods of time, chronic stress causes devastating effects to the cells and organs of the body.



The research on HPA axis dysfunction and the effects of chronic stress is vast, and it is undisputed that HPA axis and SNS (sympathetic nervous system) dysfunction are present in every disease afflicting human kind. In certain conditions, stress hormone imbalances are the cause of the disorder, as is the case in many of the mood disorders. In other conditions, the imbalances in stress hormones facilitate existing diseases and make it more difficult for the body to repair endogenous derangements and damage. Because the network between the stress response system, including the SNS and the HPA axis, is central in the control of all other bodily systems, a disruption in this chemical network will have global effects.

In the United States, it is estimated that over 80% of all patient visits are secondary to stress related bodily disorders. Those of us that have endured the rigor of medical residency know first-hand the effects of chronic stress on our health and wellbeing. Gastrointestinal disturbances, memory loss, hair loss, depression, weight gain or loss, and various types of chronic pain syndromes are only a few ailments that can arise under the influence of chronic stress.



In conditions of chronic pain, cortisol elevation causes a catabolic state leading to tissue destruction. Over time, when downregulation from the hypothalamus causes a decline in cortisol levels, there is up-regulation of the inflammatory cytokines that are known to play a central role not only in pain but also in fatigue. Furthermore, the hormones DHEA (dehydroepiandrosterone) and Pregnenolone are often decreased in the face of HPA axis dysfunction. Since they are both potent anti-inflammatory hormones, their absence further fuels inflammation. Ironically, the narcotic pain medications often prescribed for chronic pain may ease symptoms in the short term. However, over the long term, they actually potentiate pain through their inhibitory action on the HPA axis which lowers cortisol and thus increases levels of inflammatory cytokines.

### Should healthy patients with no obvious symptoms also take these observations into consideration?

Without question! 'An ounce of prevention is worth a pound of cure' is a phrase quite befitting in answering this question. The ability of the human body to engage in chronic 'damage control' is truly remarkable. This is why many disease states evolve over years rather than over months and days. It is only after our body loses the ability to compensate for our chronic unhealthy indiscretions that we begin to succumb to the early signs and symptoms of disease. The best time to prevent diseases from developing is before we actually develop the disease.

Taking proactive steps by staying healthy also ensures rapid disease resolution and quicker restoration to health in the event one does become ill.

### Lifestyle diseases are an increasing concern worldwide, how can patients reduce the impact of these?

We develop our personalities and our behaviours at a very young age. As we age, these aspects of ourselves become very difficult to change. As such, it is crucial that we learn to respect our bodies at an early age and to also teach such to our children. Poor lifestyle choices, such as smoking, overuse of alcohol, poor diet, physical inactivity, and inadequate relief from chronic stress are key contributors in the development and progression of preventable chronic diseases, including obesity, type 2 diabetes mellitus, hypertension, cardiovascular disease and several types of cancer.

Extensive research has shown that reducing identified, modifiable dietary and lifestyle risk factors could prevent most cases of CAD, stroke, diabetes, and many cancers. These findings are profoundly important, because they indicate that diseases are not inevitable consequences of a modern society. Additionally, low rates of these diseases can be achieved without drugs or expensive medical facilities, an outcome that is not surprising, because their rates have historically been extremely low in developing countries with few medical facilities. (Disease Control Priorities in Developing Countries. 2nd edition.Jamison DT, Breman JG, Measham AR, et al., editors.Washington (DC): World Bank; 2006.)Among U.S. adults, more than 90 percent of type 2 diabetes, 80 percent of CAD, 70 percent of stroke, and 70 percent of colon cancer are potentially preventable by a combination



of nonsmoking, avoidance of overweight, moderate physical activity, healthy diet, and moderate alcohol consumption (Willett W. C. Balancing Lifestyle and Genomics Research for Disease Prevention. Science. 2002;296:695–98).

Individuals have profound control over their health status irrespective of their hereditary background. The following is a partial list of healthy lifestyle choices that can reduce the development of disease:

- Discontinuation of smoking
- Increasing physical exercise (20-30 minutes daily at least five days per week)
- Moderate alcohol consumption (no more than 6 ounces per day)
- Elimination of processed foods, refined sugars, and trans-fats from the diet
- Increased consumption of fruits, vegetables, and organic protein sources
- Maintenance of a healthy body weight
- Limiting television viewing to no more than two hours per day (associated with higher rates of obesity and unhealthy eating)
- Elimination of or reduction in exposure to chronic stress

#### What are 3 tips to reduce stress?

- 1.Enjoy life, meditate, and reflect daily.
- 2.Engage in regular physical activity.
- 3.Respect your body by not polluting it with unhealthy foods, thoughts, or unnecessary stress.

#### What are the 3 supplements you can't live without?

Vitamin D, Rhodiola, and Ashwaganda (Withania). The research on all three with respect to anti-oxidant, anti-inflammatory, immunomodulatory, and stress adaptation is irrefutable. Rhodiola and Ashwaganda, in particular, are extremely beneficial with respect to enhancing endurance, stamina, cognitive function, immune system function, and HPA axis function under conditions of chronic stress....something all of us are exposed to on a daily basis.

#### What is your favourite anti-aging food?

Turmeric. It is a flowering herb that is a member of the ginger family. It has been used for thousands of years for numerous medical conditions. Research on Turmeric, and its component Curcumin in particular, has found it to possess significant antiinflammatory and anti-oxidant capabilities.

#### What can you tell us about you?

I have been fortunate to have many professional successes. I have earned numerous awards for both my medical abilities as well as for my business background. In addition to being selected to the prestigious Alpha Omega Alpha and the Who's Who Society of America, I was chosen as 'Small Business Woman of the Year' in 2008. I have also authored chapters in several textbooks on medicine, co-authored several medical papers, and I have also published a book on stress called "Adrenalogic: Outsmarting Stress."

I had the opportunity to travel abroad and live overseas for one year when I was very young, this exposure to other environments and cultures fuelled my very strong desire to continue to experience other countries and other cultures. I have been to over fifteen countries, and I plan to travel to many others in the future. Travelling has also allowed me to thoroughly enjoy two of my other passions, photography and culinary arts. I also enjoy music (I play piano, guitar, clarinet, French horn, and was once a concert violinist), white water rafting, hiking, and camping. My husband, Filip, and I enjoy raising our three children and two dogs in our new home in Boca Raton, Florida, where I am beginning a second medical practice. I retain my long standing medical practice in Lexington, KY, as well.