Making Sense of Science

By Maja Gawronska, MA

“Aging is Jolly Good, Even for Overweight Adults,” “Quality Protein, Good Nutrition Help Fight Aging Effects,” “Eat More Chocolate,” “New DNA tests available!” These are just a few newspaper headlines from last month, but what is the evidence that supports them? How can we make sense of scientific research and interpret the results? And how does it all translate to our everyday lives?

These are some of the questions addressed in Making Sense of Science, a ten-class session offered by the Osher Lifelong Learning Institute and taught by renowned scientists from the Clinical and Translational Research Institute (CTRI) and the Stein Institute for Research on Aging. The program started in April and has already generated a lot of interest among the students, who are at least fifty years young and enjoy learning without tests or grades. According to surveys from the Pew Internet and American Life Project, this is exactly the demographic that shows the most interest in health and science information provided by the media.

“We are bombarded with news about health and the latest medical advances,” said Dilip V. Jeste, MD, director of the Stein Institute and director of the CTRI Education, Training, and Career Program. “However, without scientific background it is often difficult to analyze these reports. Unwarranted fears or false hopes might follow.”

Take, for example, recent headlines about beneficial effects of aspirin. Researchers at Oxford University reported in the journal Lancet that taking aspirin every day may significantly reduce the risk of many cancers. The media has extensively reported the results even though there are major limitations. First, daily doses of aspirin can include serious side effects, such as gastrointestinal bleeding. Second, other studies—including the Women’s Health Initiative, a $625 million nationwide study that involves Stein scientists—did not find reductions in cancer occurrences as a result of aspirin use. Clearly more research is needed before doctors will begin to prescribe aspirin to everyone to ward off cancer.

“To help students navigate in the world of fast-paced research and medical novelties, our program integrates a primer on the scientific method and statistics, introduction to clinical trials, and effective use of library and internet resources, as well as lectures on hot scientific topics, such as drug discovery, research ethics, and personal genomics,” said Maureen Curran, MS, course director, executive director of the Stein Institute, and education coordinator of CTRI. Upon completion of the course, participants will be able to understand how research is performed, and analyze the basic components of studies presented in the media. More important, they can be science ambassadors in their communities.