The Villages

CREATING
THE NEXT
BIG THING

Personalized medicine
gains expected to emerge
from The Villages-USF
Health partnership

By CURT HILLS
DAILY SUN

THE VILLAGES — Back
in 1948, medical researchers
descended upon Framingham,
Mass., to recruit more than
5,200 men and women
between the ages of 30 and 62.

The volunteers took part
in physical exams and
lifestyle interviews which
would later reveal common
patterns to cardiovascular
disease.

At the time, little was
known about heart disease
and what factors contributed
to it. Today, in medical circles
the Framingham Heart Study
is well known. And the public
is well aware of its outcomes.

See CREATING, A8
CREATING, from A1

It’s because of the Framingham study that we know high blood pressure, bad cholesterol levels, smoking, obesity and a sedentary lifestyle all fuel greater risk for cardiovascular disease.

The study is ongoing, working on its third generation of families, and is still providing valuable medical research input.

And now comes a wider, much more elaborate project than what started decades ago in Framingham. The recent announced partnership between The Villages, The Villages Health System and USF Health will look to present a study at unprecedented levels – right here in The Villages, with its 80,000-plus residents as the key to studying health care for retirees. The goal – make The Villages “America’s Healthiest Hometown” and let the benefits be shared with the rest of the nation, or even globally.

The University of South Florida College of Medicine, and its dean, Dr. Stephen Klasko, recruited Dr. Les Miller as its cardiovascular sciences chairman. Miller joined the university and its USF Health entity as a renowned expert in personalized health, the study of molecular footprints and creating an ideal environment for treating diseases.

When it comes to the new partnership with The Villages and the extensive survey of residents that is planned, Miller will be one of those at the forefront of the project. He said he believes The Villages is the perfect place to undertake such a learning opportunity.

“The concept of retirement living (in The Villages) really partners well with the innovative programs we’ve created,” Miller said.

And giving 80,000-plus Villages residents a chance to carve out a piece of medical history and enhance their own lives along the way is exciting to Miller.

“It’s truly beyond anything I have seen,” Miller said of study of its size.

Miller said Villages residents, both in the short- and long-term, will get the benefits of the partnership.

“We hope to bring new and innovative thoughts to The Villages to try and focus on the issues that include cardiovascular health, neurological health and well-being, as well as cancer screening to enhance the life and longevity of the residents here,” Miller said. “We really think this could be the next opportunity in really what is the largest demographic of retired people (in one place).”

For Miller, a leading advocate for personalized medicine, the partnership creates the opportunity to home in on what’s best for a single patient, instead of trying to treat them as if everyone afflicted with disease is identical and responds the same way to treatment plans.

There are four common capabilities of personalized medicine, Miller said.

The first is the capability to alter and select a drug that each individual patient would be most responsive to, he said. Secondly, being able to adjust the dosage of a particular drug based on patient’s unique genetic make-up also is conceivable.

A good example that currently exists, Miller said, is that 30 percent to 40 percent of patients with a certain genomic makeup may metabolize a popular anti-coagulant, or blood thinner drug, quicker or slower than usual patients.

Miller said a study like The Villages-USF partnership could provide the answers, helping set proper dosages or even picking a different drug as a treatment option.

“Knowing that in advance would help us guide the appropriate therapy,” Miller said.

A third probability of personalized medicine is the establishment of a “markers” in a particular patient that doctors could see, allowing them to forecast things such as atherosclerosis – the buildup of plaque or hardening of arteries.

“It gives us the science for new genetic treatment,” Miller said of establishing genetic markers.

A fourth possibility is that an extensive study could identify new targets for personalized new therapies for patients in the future, Miller said.

Miller said USF Health experts have a lofty vision of where the partnership, and its development of personalized medicine, could go.

“It’s an opportunity to improve the quality of life (for retirees),” Miller said.

And the long-term benefits would not just be confined to The Villages, he said.

“We hope to be able to convey that information to the rest of the world,” Miller said.

Curt Hills is an assistant managing editor with the Daily Sun. He can be reached at 753-1119, ext. 9319 or curt.hills@thevillagemedia.com.