Tulane researcher awarded $1.9M to improve menopausal hormone therapy

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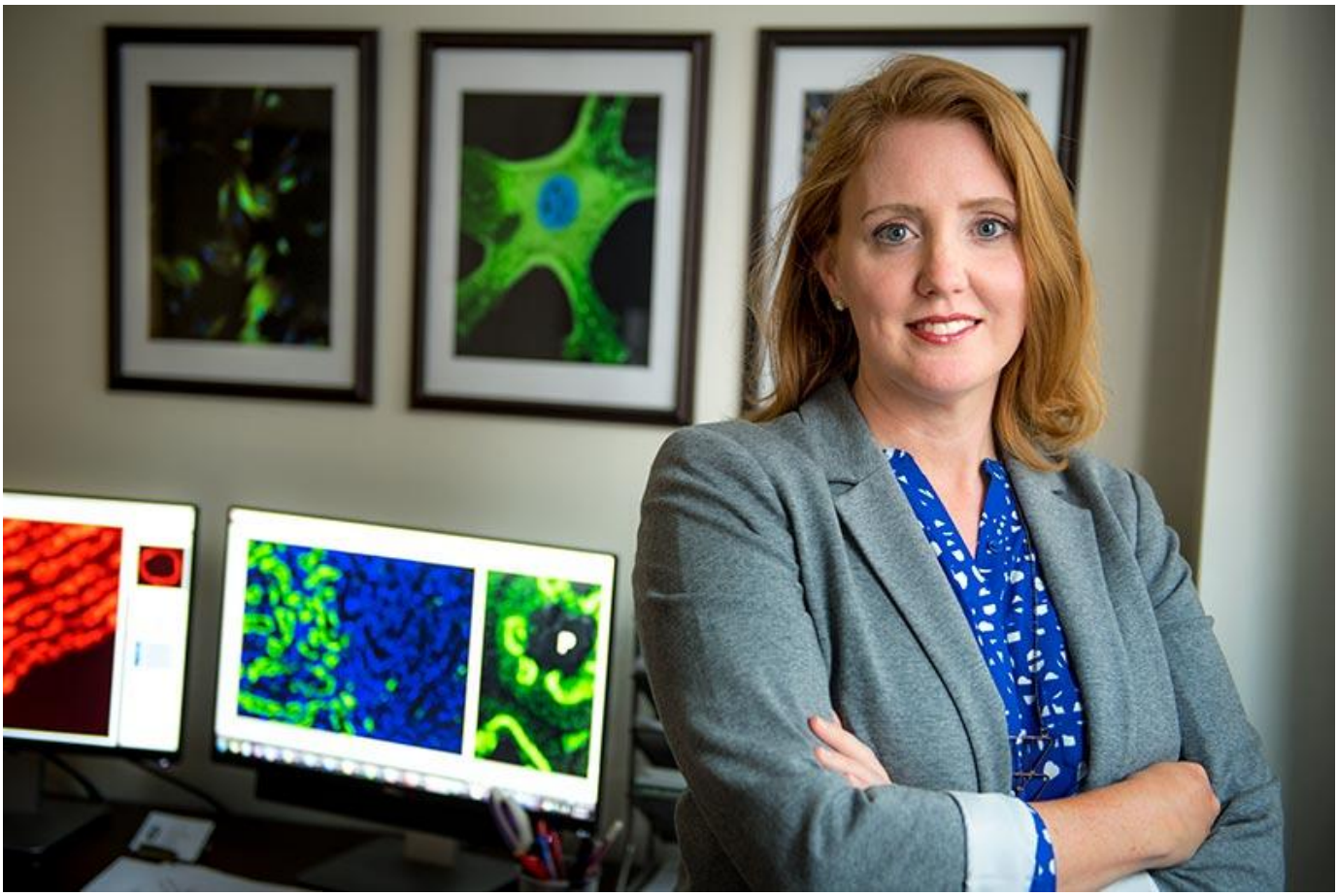

Sarah Lindsey is a researcher in the Department of Pharmacology. (Photo by Paula Burch-Celentano)

New research at the Tulane University School of Medicine is looking at an estrogen receptor that could be a site for targeted hormone replacement therapy in post-menopausal women.

It’s important to find better treatments for cardiovascular disease as more women live years and even decades longer, says Sarah Lindsey, Ph.D., an assistant professor and researcher with Tulane’s Department of Pharmacology, who was

recently awarded a $1.9 million grant from the National Heart, Lung and Blood Institute under the National Institutes of Health to conduct the estrogen study.

Previous research has shown the loss of cardiovascular protection in post-menopausal women, and even hormone replacement therapy can’t give back the protective effects provided by estrogen.

“A century ago we didn’t have this problem. We need to figure out how to safely give estrogen back to preserve quality of life in women now living thirty or more years past menopause,” Lindsey says.

“There’s something missing, that’s not being done correctly when we give estrogen back,” Lindsey adds. “One way we’re trying to answer the question is, can we more specifically figure out which estrogen binding sites are the important ones and can we just get to those sites and not activate everything in the body that responds to estrogen?”

Using a mouse model, Lindsey and her team are targeting one known receptor that has been identified as important to the cardiovascular effects of estrogen.

Another part of the study is looking at the impact of aging on the receptor. The receptor decreases as the mice age, making it more difficult to target. Lindsey’s team is trying to figure out why that happens and if the function of the receptor can be recovered using targeted therapies.

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