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FOR RELEASE

UK Gill Heart Researchers Study Abdominal Aortic Aneurysms

LEXINGTON, Ky. (June 23, 2006) – As the baby boomer generation races toward Medicare eligibility, a new screening procedure could mean that many men in the United States may soon learn that they have a killer condition they can do little or nothing about.

Anticipating a surge in diagnosed cases of abdominal aortic aneurysm, a condition for which Medicare just approved a one-time free screening for men, University of Kentucky researchers are working with \$8.5 million in NIH funding to understand the condition and how it can be treated.

"In collaborative studies with [Lisa Cassis](#), professor and director of the [UK Graduate Center for Nutritional Sciences](#), we serendipitously developed an animal model of abdominal aneurysms that is now used in many laboratories. This model has provided us with way of defining the mechanisms that initiate and propagate this devastating disease," said [Alan Daugherty](#), Director, [UK Cardiovascular Research Center](#).

In the United States there are currently 78.8 million baby boomers – people born between 1946 and 1964. More than half of baby boomers will be age 50 or older by next May, and this January will mark the 60th birthdays of the oldest boomers, according to an analysis of U.S. Census data by American Demographics.

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Abdominal aneurysm currently ranks as the 10th leading killer in the United States; although scientists suspect that the incidence may be even higher as the disease is only detected upon autopsy, and autopsies are not always performed in the deaths of older people. The condition primarily affects men over age 55, so the Medicare-covered screening will only be for men. Currently, if a screening detects an abdominal aneurysm, patients face an expensive and unsure course of surgical of treatment.

The aneurysm must be monitored, and physicians must use their best judgment to decide when and if surgery is warranted. Open surgery is a long term fix for this disease, but is associated with risks and long recovery times. More recently, endovascular approaches have been developed in which patients recover quickly. However, this intervention is not without significant risk, and is expensive. There is a dire need for development of a drug that will favorably impact this disease. At present, there is no non-surgical therapy for abdominal aortic aneurysm that has proven of benefit.

The expected hit to the Medicare system from the influx of aging baby boomers means that surgical treatment for every case of abdominal aneurysm expected to be diagnosed in coming years would be prohibitive.

Aside from costs, the number of surgeons, support staff and facilities equipped to deal with the surgery will be outstripped by the need to treat the huge numbers of men who may learn they have an aneurysm threatening their lives.

The research team at [UK HealthCare's Jack and Linda Gill Heart Institute](#), led by Daugherty, will spend the next five years working with an animal model of abdominal aneurysm. The goal is to form a sufficient understanding of the condition to move into clinical trials, and eventually into the implementation of a pharmacological treatment for abdominal aneurysm.

Cassis and [Nancy R. Webb](#), associate professor of internal medicine, along with Daugherty will direct their research toward understanding three separate facets of abdominal aneurysm. Cassis will lead a group focusing on gender effects, asking why the condition is much more prevalent in men. Webb's team will look at the role inflammation processes play in the disease, while Daugherty will investigate why

abdominal aneurysm is always located in a specific location of the abdominal aorta.

A pharmacological solution to abdominal aneurysm treatment would mean that instead of waiting and wondering about a diagnosed aneurysm, patients and their doctors could aggressively treat the problem through drug therapies. Pharmacological treatment is projected to be less expensive and less risky for most patients. Given the amount of time it takes to research a drug and bring it to market, it is possible that today's crop of 50-something baby boomer men may have an answer to abdominal aneurysm treatment by the time they qualify for the Medicare-approved screening at age 65.

UK was chosen as the site for this research after a peer review process at the [National Institutes of Health](#) enthusiastically endorsed the proposed research program that has been developed by the team of UK investigators, Daugherty, Cassis, and Webb. The Cardiovascular Research Center currently has more than \$20 million dollars in NIH and other funding, and is a leader in cutting-edge clinical and translational research.

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