

WORLDLY-WISE: In a March 3 *New York Times* op-ed essay, DMS researcher Kendall Hoyt called attention to the need for better preparedness—especially the development of better vaccines—against the global health threat of avian flu.



Clinical trials: Hunting for a stroke of luck

Fran Hunt stumbled into her office at DHMC one day last October. She'd felt fine while driving to work but started to feel strange as she walked in from the parking lot. She began veering and bumped into the door as she entered the building.

"I go in my office and I sit down and I realize I can't move my right hand, I can't move my right leg," she recalls. "If I didn't know any better, I'd think I was having a stroke," she remembers thinking. But she considered herself too healthy for that.

Then the phone rang. "My speech was slurred when I tried to speak," says Hunt. The caller, a colleague in another office, thought at first Hunt was kidding around but soon realized she was in trouble and called for help. Within minutes, Hunt was being rushed to the emergency department, where Dr. Timothy Lukovits, a neurologist who specializes in stroke, treated her right away. His team administered tis-

sue plasminogen activator (tPA), which dissolved a blood clot that had lodged in a cerebral artery. She recovered completely. In fact, after a two-night hospital stay, she drove herself home.

But not everyone is as lucky. Stroke is the third-leading cause of death in the U.S., killing about 160,000 people a year—out of the 700,000 who suffer a new or recurrent stroke. There are about 5.5 million stroke survivors in the U.S., many with permanent disabilities.

Act: Administering tPA within three hours is one proven way to treat stroke. Rapid evaluation and treatment of stroke patients is now routine at DHMC, thanks to a "stroke alert" system. When the emergency department gets word a stroke victim is en route, staff are prepared to act even before the patient arrives.

Lukovits and an interdisciplinary team of colleagues are also collaborating on three clinical trials to find other ways to treat and prevent the devastating consequences of stroke.

Lukovits is principal investigator at DHMC for a trial called CLOSURE-I, for patients with patent foramen ovale—a hole in the septum, or wall, separating the upper chambers of the heart. The defect allows blood to circulate back to the body without going through the lungs first. If debris is present, it may travel to the brain and cause a stroke. The standard treatment is blood thinners to reduce the risk of clots. Trial participants are randomly assigned to take standard blood

thinners or to get a device implanted to repair the defect. The multicenter trial is sponsored by the device manufacturer.

Another trial, sponsored by the National Institutes of Health, is for patients with narrowed carotid arteries, which supply the brain with blood. The Carotid Revascularization Endarterectomy vs. Stenting Trial (CREST) is comparing carotid endarterectomy, surgical removal of arterial plaque, to stent-assisted carotid angioplasty, in which a tiny balloon is temporarily inflated in the artery and a mesh tube inserted to hold the vessel open. Dr. Richard Powell, a DHMC vascular surgeon, is the principal investigator and DHMC is one of 110 participating centers. It is "the largest trial comparing stenting and endarterectomy ever," says Lukovits.

Factor: And Lukovits is the principal investigator of a trial DHMC just joined, to determine if Factor VII, a clotting factor typically administered to hemophiliacs, is a safe and effective way to stop bleeding in patients with acute intracerebral hemorrhaging. About 15% of strokes are due to such hemorrhaging. Currently, "there's no proven treatment," says Lukovits.

While Hunt is not participating in any of the trials, she and Lukovits are working hard to ensure that she won't have another stroke. She doesn't smoke or have high blood pressure, two risk factors. But she discovered that she has high cholesterol and diabetes, also risk factors. She's being treated for both.

Laura Stephenson Carter

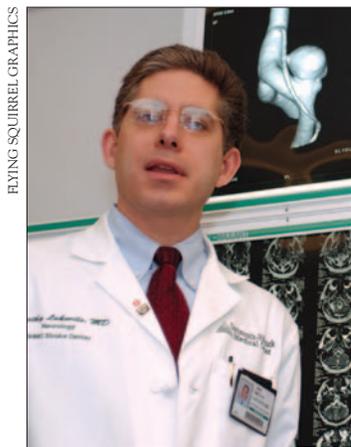
Tanzanian agreement targets the global impact of AIDS

In Tanzania, when you hire someone for a new position, you often have to hire two people because one will [soon] be dead from AIDS": Dr. Stephen Spielberg, the dean of Dartmouth Medical School, was sharing something he'd been told by Dr. Kisali Pallangyo, his counterpart at a Tanzanian medical school. Tanzania has some of the highest HIV infection rates in the world, Spielberg went on, and its social fabric is unraveling as many young, potentially productive members of society are lost to AIDS. And those who've died have left behind more than a million orphans.

"Is international AIDS important?" Spielberg asked. Then he answered his own question: "Yes."

Mark: DMS's dean was speaking at a ceremony in November to mark the signing of an agreement between Dartmouth and Tanzania's Muhimbili University College of Health Sciences (MUCHS).

On the Dartmouth side, the joint effort—called the Global Health Initiative—is being led by DMS and Dartmouth College's John Sloan Dickey Center for International Understanding. It also involves Dartmouth's Tuck School of Business and Thayer School of Engineering. Projects under way include the creation of a global health program in Tanzania; public programs at Dartmouth to raise



Neurologist Tim Lukovits is looking for ways to better treat and prevent stroke.

BYING SQUIRREL GRAPHICS