negotiating with men." It is hoped 710 Ugandan women will be enrolled by next March, and that preliminary results will be available by the end of 2008.

Kamali added that separate trials on 2 other gels are ongoing elsewhere in Africa, including one in Rwanda where Dr. Eveline Geubbles, scientific manager at Projet Ubuzima, told *The New Times* their trials on the Dapirivine gel would not be affected by the CONRAD findings. "Currently, we are at the stage of data analysis. We sent the data [to the US] for laboratory tests and we expect results around the end of this year," she said.— Wairagala Wakabi, Kampala, Uganda

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Imaging possibilities

Imagine the capacity to simultaneously identify the location of a tumour and obtain information about its biochemical and molecular nature.

That's the goal of an ambitious $26.9 million research project that hopes to combine diverse imaging modalities like MRI, PET and CT into a single technological platform for diagnostic use.

"If that can be achieved, the potential therapeutic benefits would be enormous, in that physicians would obtain information with greater speed and detail from a single scanning session," says Dr. David Hill, scientific director of London's Lawson Health Research Institute. "This obviously moves us enormously ahead in starting to arrive at the right course of treatment."

The Lawson, along with St. Joseph's Healthcare London, will take the lead in the multidisciplinary international initiative known as the Biomedical Multimodality Hybrid Imaging Project, which is expected to be launched this year, having successfully garnered a $13 million infrastructure award from the Canada Foundation for Innovation, primarily for the purchase of a cyclotron.

Hill says the 105-strong research team, including 23 from outside Canada, hopes to push the technologies "to the limits of what they can tell us in terms of useful information. Part of that is how can we devise new readings for imaging that will tell us, for instance, more about particular genes and how they're being expressed. To do that, we need to come up with radioisotopes that give us readouts based on carbon or oxygen or nitrogen."

The cyclotron and radiochemistry facilities will generate those isotopes, which researchers will mark with biochemicals for use as tracers in imaging.

Hill says the research team also plans to investigate myriad leading-edge imaging technologies, including the emerging form known as photoacoustic imaging, a hybridization of laser and ultrasound technology that can provide optical images at significant depths and with excellent resolution.

In photoacoustic imaging, a high intensity light is shined into a tissue for a few billionths of a second. The laser energy that is absorbed by subsurface objects causes an ultrasound signal. "What this does potentially is [create] a very high definition 3D picture of the tissue in real time," says Hill. "What we're looking for within [5 years] ... will be the application of these new technologies to patients.... We're pushing the limits of medical imaging." — Lynne Swanson, London

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Lawson Research

Canada Foundation for Innovation President Dr. Eliot Phillipson (centre) tours the 3T MRI Suite of the Lawson Health Research Institute with imaging scientists Dr. Terry Thompson and Dr. Neil Gelman.

Family practice a tough sell

Family medicine residencies remained the toughest fill during the 2007 residency match, as some 108 of 987 available slots were left vacant at the conclusion of both iterations of the process.

By contrast, only 36 medical specialty slots remained vacant at the conclusion of the annual match run by the Canadian Resident Match Service (CaRMS).

Only 29% of medical graduates chose family medicine as their preferred option, compared with 32% in 2006 and 28% in 2005.

But CaRMS Executive-Director Sandra Banner says the decline isn't necessarily an indicator of the lack of appeal of family practice, so much as a function of the larger number of available family medicine residencies in this year's match. "The vacancies have everything to do with the funding that was in place and there was a lot of extra positions this year because of the expansion in BC and the expansion in Ontario. And the positions exceeded the number of grads and for the most part, international medical graduate positions were in addition to that and specially identified."

For the first time since 1992, the annual match allowed Canadian medical school graduates (CMGs) and international medical school graduates (IMGs) to participate in both iterations of the

process. Under reforms approved last year (*CMAJ* 2006;175:236), IMGs were eligible to participate in the first iteration but in a separate competition from CMGs, except in Manitoba and Quebec, where all are put into the same competition hopper.

Essentially, the revisions created a CaRMS-run match for IMGs, although not all provinces participated and several set their own eligibility criteria.

Still, the revisions attracted a record number of IMG applicants. Some 1486 competed in the first iteration, and an additional 160 applied for the second. There were 2000 CMGs in the match.

After both iterations, 298 IMGs were matched through the CaRMS process, while 59 others were matched through various provincial processes, for a total of 357, compared with 111 in 2006.

Some 1976 CMGs found residencies through the CaRMS match, with 85% of those finding a spot at 1 of the top 3 programs of their choice in terms of location, and 90% finding a top 3 preferred discipline. Specifics regarding the 36 unmatched specialty residencies were unavailable as of *CMAJ*'s press deadline (Apr. 27). Some 33 CMGs were matched in the United States this year, compared with 34 last year.

The 24 unmatched CMGs and 1289 unmatched IMGs are eligible to be chosen for the 144 remaining vacancies before the July 1 starting date for residencies.

Banner expects most of the 2 dozen CMGs will find spots. "But they're not all in jurisdictions that they will be available to fill. But there will be some tidying up and there will be a few people who find themselves in positions on July 1st."

Post-match vacancies are usually, but not always filled, Banner added. "It depends on the province. Some will be scrambles. Some won't be filled."

Overall, the CaRMS match and other matching processes in other provinces (Alberta, Saskatchewan, Nova Scotia and Quebec) will result in a record 2337 graduates commencing residencies on July 1, Banner said. "That bodes well for the continuing growth of the medical community in our country." — Wayne Kondro, *CMAJ*

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US proposes more stringent conflict-of-interest rules

The US Food and Drug Administration (FDA) has moved to stave-off a political firestorm by proposing new conflict of interest rules that would limit the ability of medical experts with financial interests in pharmaceutical companies to sit on the agency's influential scientific advisory committees.

The proposed rules would prohibit physicians or scientists (and, by extension, their immediate families and employers) who have over $50 000 in financial ties to a company over the previous 12 months from participating on a panel reviewing one of that company's products. Medical experts who have received less than $50 000 in the previous year could participate in the discussion but would not be allowed to vote.

Several grey areas remain unresolved. Waivers, which the FDA has routinely issued in the past, would still be allowed for experts with under $50 000 in financial ties, if the "need for the individual's services outweighs the potential for a conflict of interest created by the financial interest involved." Financial ties would include things such as stocks, research grants, licensing revenues and consulting or speaking fees. Grants from a pharmaceutical firm to an academic researcher's home institution would be reviewed by the FDA to determine whether they should also be included.

By contrast, Canada has no hard rules governing exemptions or waivers. Experts with conflicts are allowed to sit on panels without a formal waiver process. But conflicts are publicly declared and Health Canada says panel chairs can place limits on an individual's involvement. It's long been argued that Canada needs such a degree of latitude because of its limited pool of available experts.

The new US rules are the product of a year-long internal review of the FDA's Advisory Committee Meeting system, which the agency uses to garner expert advice on scientific issues surrounding drugs (*CMAJ* 2006;175[1]:23-4). Typically, about 20% of the 35–40 new drugs approved by the FDA each year are subject to external panel review. Advice provided by the FDA's 16 drug committees and 32 other advisory panels is not binding. But the agency has rarely deviated from their recommendations.

The FDA struck the review in response to a raft of Congressional bills now working their way through the US legislative process, and widespread criticism that the agency's credibility had been compromised. The impetus for change became all but inexorable last September when a committee convened by the highly influential National Academies (a Congressionally chartered scientific advisory body comprised of the Institute of Medicine, the National Academy of Sciences, the National Academy of Engineering and the National Research Council, and charged with advising the government on science and health policy issues) released a report, *The Future of Drug Safety*, that recommended an overhaul of the agency's structure, management and "culture." One recommendation called on the FDA to limit conflicts of interest by requiring "a substantial majority [i.e, 60%] of the members of each advisory committee be free of significant financial involvement with companies whose interests may be affected by the committee's decision."

"FDA's credibility is its most crucial asset," the report noted, adding that controversies over the independence of advisory committee members "have cast a shadow on the trustworthiness of the scientific advice received by the agency."

FDA Acting Deputy Commissioner for Policy Dr. Randall Lutter stated in a press release that the new conflict guidelines will make the advisory committee process "more rigorous and transparent so that the public has confidence in the integrity of the recommendations made by its advisory committees."

But Centre for Science in the Public Interest's Director of Integrity in Science Merrill Goozner says that while the changes "are a start," they fall well short of either a complete ban or introducing the sort of cultural changes recommended by the Institute of Medicine.

"The Institute of Medicine said there was a cultural problem at the FDA, in which, rather than seeing themselves as being there to protect the public from unsafe or effective drugs, they're there to help the industry bring new