causative," adds Glenn Merlino, PhD, of the National Cancer Institute in Bethesda, MD, who was not connected to the study. Zon and his team are now trying to determine whether chemicals in the fish’s water or other factors trigger melanocytes to make this switch.

“It’s a tour de force in terms of technology application” that may lead to better diagnostic methods and techniques to halt melanoma formation, says David Fisher, MD, PhD, of Massachusetts General Hospital in Boston, who also was not connected to the study. “Once you have a system that can identify these early events, you can ask what the causes are and if there are prevention opportunities.”

Martin McMahon, PhD, of the University of Utah in Salt Lake City, gives the authors credit for “visualizing the early specification of cells that go on to become melanomas.” He emphasizes that researchers need to confirm that the mechanism also occurs in mouse models and human melanomas, not just cell lines. –Mitch Leslie

UK Groups Plan Cancer Research Hub

Two major cancer research groups in the UK have announced plans to create a hub for cancer research and treatment to accelerate drug development and foster collaboration with industry. The $1.5 billion campus in south London is expected to house 10,000 scientists and clinicians and jump-start development of cancer drugs.

The proposed London Cancer Hub is a partnership between the London-based Institute of Cancer Research (ICR) and the Royal Marsden NHS Foundation Trust, as well as the Borough of Sutton. The plan calls for doubling the space at ICR’s Sutton campus to 265,000 square meters, including room for start-up biotechnology companies working on new drugs, medical devices, and digital technology, according to the project’s “roadmap,” available at www.icr.ac.uk.

“Since 2005, we’ve discovered 20 drug candidates and have been very successful in licensing those discoveries to big drug companies, but we’ve never been able to do that locally,” says Paul Workman, PhD, ICR’s president and chief executive. “There’s a strong argument that physical co-location of world-class basic research and healthcare with biotechnology enterprise creates a mutually beneficial triangle of innovation—that’s what we’re seeking to achieve.”

The hub will allow ICR to increase productivity by 40%, from five to seven new drugs every 5 years, he says. A center for drug discovery, to be built over the next 3 years, will facilitate that growth by locating ICR’s cancer therapeutics group alongside its Center for Evolution and Cancer, a multidisciplinary team that studies cancer from an evolutionary biology perspective.

“The idea is to have a diverse group of scientists thinking about the key challenges facing cancer now,” says Rajesh Chopra, MD, PhD, who heads up ICR’s Division of Cancer Therapeutics. “Those include understanding the basis of tumor heterogeneity, understanding the mechanisms that hasten the evolutionary process of cancer cells, and defining novel therapeutic targets.”

Other research priorities include studying genetic instability and DNA repair; small-molecule approaches to immunotherapy; and epigenetic mechanisms associated with drug resistance, says Chopra.

The Sutton expansion will be rolled out over the next 20 years, starting with 20,000 square meters for drug discovery facilities and incubator space to be built in the next 3 years, according to the roadmap. Highlights beyond that include:

- **Years 3 to 6.** Creation of the London Cancer Hub Knowledge Center and expansion of Royal Marsden’s ambulatory care facilities.
- **Years 9 to 12.** Opening of facilities for private companies and expansion of Royal Marsden’s inpatient and outpatient departments.
- **Years 12 to 15.** Construction of a tram connecting the campus to downtown Sutton and central London, and additional life sciences buildings.
- **Years 15 to 20.** Completion of life science facilities, restaurants, hotels, and a school.

“The advantage of having start-ups and researchers in one place is it gives us the opportunity to be flexible and take on high-risk ideas,” says Chopra. “We will have enough critical mass and resources to conduct significant and expensive experiments—and a cadre of scientists who understand drug development and can support the growth of start-up ventures.” –Janet Colwell

Potential Therapy for Refractory Colon Cancer

Patients with advanced RAS/BRAF-wild-type colorectal cancer typically develop resistance to two leading EGFR inhibitors, the monoclonal antibodies cetuximab (Erbitux; Lilly Oncology) and panitumumab (Vectibix; Amgen). A recent study suggests that an investigational antibody mixture could provide a new therapeutic option for these tumors (Sci Transl Med 2016;8:324ra14).

Acquired resistance to cetuximab and panitumumab most often develops from mutations in genes downstream