in which Epizyme could ultimately receive as much as $630 million. "GSK's group is partnering with us and is also competing with us on other programmes," says Epizyme's chief scientific officer, Robert Copeland. "It makes for an interesting dynamic."

With so much excitement, competition in the field can be fierce. Data from large government projects can be a boon to smaller labs, says Clark, but individual investigators and those new to the field need to carve their own niche. "In the face of those big initiatives, smaller labs have the challenge of asking smaller and more unique questions as to the basic mechanisms underlying these epigenetic changes," she says. Christopher Vakoc, an epigenetics researcher at Cold Spring Harbor Laboratory in New York, notes that the "tiny" lab he started in 2008 directly competed with several big pharmaceutical companies to discover a role for Brd4 — a 'reader' protein that binds to certain modified histones and modulates gene expression — in acute myeloid leukaemia (J. Zuber *et al. Nature* **478,** 524–528; 2011). After his team's paper was published, Vakoc heard rumours that ten companies were racing to capitalize on the results.

There is also an intense demand for talent. In particular, epigenetics companies and individual labs need bioinformaticians as sequencing projects continue to dump terabytes of data into public databases (see *Nature* **482,** 263–265; 2012). Although this is an opportunity for job hunters with computational training, it creates challenges for those opening labs for the first time, says Jun Song, a computational biologist who opened his lab at the University of California, San Francisco, in 2009. Song has struggled to compete with bigger labs to recruit graduate students and postdoctoral researchers, who often prefer the proven track-record and extensive connections offered by a well-established principal investigator. "We battle to get a talented bioinformatician," says Clark. "Everybody wants their own."

Ultimately, Song looked outside biology to recruit three postdocs, two of whom he lured away from high-energy particle physics and the third from applied mathematics. Song himself was trained as a physicist, and says that epigenetics and epigenomics offer a range of challenging computational questions that can entice researchers from other fields. "It would be great to have someone already trained in both biology and computation," he says. "But as biology becomes more quantitative as a field, I also believe that it's important to bring in new computational scientists and train them in biology."

The opportunity for cross-disciplinary training in epigenetics can be an advantage for bioinformaticians and molecular biologists alike, says Garcia. "It makes you a more well-rounded scientist," he says. "And that's what you need these days to compete in the job market." ■

Heidi Ledford *writes for* Nature *from Cambridge, Massachusetts.*

COLUMN

A tough climb

Challenging your own ideas and opinions takes more than just a change of scenery, says **Andrew Peterman**.

It was 4:00 a.m., and I was sure I was getting close to the top. The wind had pelted my face with snow and ice for the past three hours. Every few steps, the train of people stopped. Below me, hundreds of specks of light from climbers' lamps clung to the mountainside in a zigzag pattern. At each pause, I shut my eyes.

When I opened them again, I was looking down at the half-metre between my feet and the heels of my former college roommate. The short respite hardly counteracted the fact that each breath contained less than half of the oxygen I am used to back at home. I looked at my altimeter — I still had a couple of hours to go.

Last February, I decided to climb Mount Kilimanjaro in Tanzania, which stands 5,895 metres above sea level. I embarked on the 3-week trip to challenge myself to embrace a different culture. But I found that it takes more than a change of scenery to challenge one's perceptions.

I wanted to broaden my landscape, test my own conventions and walk away feeling as if I had pushed myself physically and mentally. I wanted to create an unconventional forum for discussion, as different as possible from that of the engineering department at Stanford University, California. I invited my closest friends who had gone on to pursue different areas of study or practice from my own. In academia, we often interact with the same people, hear and speak the same language, and attend the same presentations. We surround ourselves with people just like ourselves. I assumed that an unfamiliar location and culture would challenge my ideas and opinions.

But researchers such as Miller McPherson, a sociologist at Duke University in Durham, North Carolina, have shown that similarity breeds connection — the homophily principle (M. McPherson *et al. Annu. Rev. Sociol.* **27,** 415–444; 2001). Individuals' relationships tend towards homogeneity. In other words, we develop contacts with greater frequency among individuals who have sociodemographic and behavioural characteristics and attitudes similar to our own.

Despite the fact that my friends have pursued careers in other fields, they are still more like me than are other people. We are all males and are mostly white, Stanford alumni, from middle-upper-class families, in our late 20s who share similar political views. Perhaps

R. STEIER

Andrew Peterman and friends climb Kilimanjaro.

forming the group was, by my own subconscious design, a way to avoid the unfamiliar in a trying and scary environment, and perhaps the research is correct.

The experience has made me realize that homophily is also a tough mountain to overcome. I found that by stepping outside my comfort zone physically — braving the cold, harsh conditions of Kilimanjaro — I had clung to the familiar opinions of my close friends.

As much of the research in this area shows, homophily has serious implications for the development of new ideas. If you surround yourself with people who share your opinions, attitudes, beliefs and even experiences, how can you learn anything new? Who will challenge your ideas?

I aim to keep looking for that interdisciplinary environment. The first step is engaging with people with whom I do not always agree — embracing the conflict and uncomfortable nature of working with those with starkly different opinions. I believe that all scientists, especially those with interdisciplinary aspirations, should strive to break away from the familiar in search of the unfamiliar. Doing so may uncover a new approach to an old problem.

Creating these situations requires an active effort to push through the discomfort of difference. And, despite what the research suggests, it does not always have to be the case that 'birds of a feather flock together'. ■

Andrew Peterman *is a doctoral candidate in civil engineering at Stanford University in California.*