



A DMS study found that people who drank two or more cups of green or black tea daily were 30% less likely to have squamous cell skin cancers than were non-teadrinkers.

Persistence pays off for geneticist Conradt

What are we going to find out today?" is the question that energizes Barbara Conradt, Ph.D. A geneticist at DMS, she studies programmed cell death in a roundworm called *Caenorhabditis elegans*. Her lab's latest finding—how asymmetric cell division happens in *C. elegans*—required long, patient observation of mutant worms with minor genetic variations. The finding, which was published in the journal *PLoS (Public Library of Science) Biology*, has long-range implications for identifying ways to kill off cancer cells that defy their predestined death.

Path: The path to virtually every scientific discovery is fraught with frustration. Researchers usually face down failure several times before they achieve success. During her training, Conradt worked on reconstitution of the fusion of vacuoles in yeast. She experienced more than 200 failed attempts before she finally came up with a protocol that worked—a breakthrough that helped establish the current understanding of the molecular mechanism of vacuole fusion. To this day, she recalls not the frustration

of failure after failure but her enthusiasm to get back into the lab every day to try, try again. One "can always learn something from negative data," she notes.

Conradt says if she has learned anything during her career, it is that "little things make big differences." Her meticulous attention to detail allows her to observe things that often escape others. She may not at first be able to explain exactly why one day, after many unsuccessful tries, an experiment works, but she can point to every minute condition she has modified at each step of the way. Such details can easily be overlooked as insignificant. "Good science just takes time," she says. "One has to be patient and open-minded to follow the biology rather than the model in one's mind."

Conradt's passion for science isn't unusual, but her commitment to actually working at the lab bench is. Many principal investigators gradually move away from the bench during the course of their careers and spend more and more time on the administrative work of running their lab. Conradt, however, continues to do experiments. "I just love it," she says. "That is the part that's the most fun." It keeps her up to date on the latest technologies and is also "the best way to see how [others in her lab] are doing and to communicate with [them]."

But she still has to run the lab. When asked how she juggles both science and administration, Conradt chuckles. "Be really organized," she says. "I write a little list, which everyone in the lab makes fun of me about."

Undeterred: But "fun" appears to be the operative word. Conradt expects to be undeterred by whatever failure lies around the next corner, choosing instead to be energized by the success that lies beyond it. TINA TING-LAN CHANG

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For love of country

Primary-care physicians who live in rural areas are likely to make less than their urban counterparts. So stated two DMS researchers in the *Journal of Rural Health*. They studied data gathered by the American Medical Association and concluded that primary-care doctors in the country work longer hours, see more patients, and rely more heavily on Medicaid reimbursements than do doctors in cities. The authors recommended "increasing incomes, reducing work hours, or some combination of the two" to encourage doctors to leave the pavement for the pasture.



Duck, dog, ditch, dig . . .

Given one minute, how many words could you list that start with the letter "D"? That word game is a test of verbal fluency—the ability to name words in a limited category. Members of the DMS Department of Psychiatry used such tests to examine a possible link between verbal fluency and mild cognitive impairment (MCI), a condition that often progresses to Alzheimer's disease. They reported in *Archives of Clinical Neuropsychology* that there was "an overall decline in verbal fluency performance" among patients with MCI. Their work could help doctors spot the condition earlier, making treatment more effective.



JON GILBERT FOX



Conradt studies cell division in *C. elegans* worms.