

WOMEN IN SCIENCE

Congress Focuses on Job Discrimination

cause it also binds to the estrogen receptor and has other cellular effects as well. But the researchers thought that by tinkering with Tamoxifen's structure they might be able to come up with a specific AEBS binder. They eventually hit on a compound called DPPE that seemed to fit the bill.

DPPE proved to have several effects on cell growth, including stimulation of tumor growth in rats and mice. And Brandes noticed something else as well: DPPE is structurally similar to the antihistamines, which led the researcher to suggest that all or part of the AEBS might be a novel type of histamine receptor, an idea supported by further work. Previously discovered histamine receptors mediate allergic reactions, among other things, but not cell growth.

But the antihistamines aren't the only compounds that DPPE resembles. It is also structurally similar to antidepressants, including Elavil and Prozac. And since DPPE proved to have tumor-promoting activity in rodents, the question then was, might the antidepressants have similar activity. The answer, according to the current study, is yes. The researchers found, for example, that when they used the chemical carcinogen known as DMBA to induce mammary tumors in rats, animals treated with either antidepressant, in doses comparable to those given to human patients, developed the cancers both more rapidly and in greater numbers than controls. That led Brandes to ask one of the paper's co-authors, cell biologist Robert Warrington of the University of Saskatchewan in Saskatoon, to test the drugs in another cancer model in which melanoma cells are transplanted into mice; they also stimulated the growth of those cells. Brandes suggests the drugs are promoting tumor growth by virtue of their ability to bind to the intracellular histamine receptor.

What everyone agrees are needed now are more studies. "It would be interesting to see if the [intracellular histamine] receptor has the activity in human cells," says FDA's Burke. If it does, the information might be helpful in designing better screening tests.

It would also heighten concerns about antidepressants. Brandes calls for epidemiological studies aimed at determining how the fates of cancer patients who take the antidepressants compare to those of patients who don't. Although some previous studies have indicated that depressed individuals are at higher risk of developing cancer than people who aren't depressed, other studies haven't shown any differences between the two groups. Brandes says, however, that none of these studies appeared to take antidepressant use into account. And then there's the question of whether any of the antihistamines might themselves be tumor promoters. As Burke says, "[Brandes] has a lot of interesting experiments to do."

—Jean Marx

What do a garbage truck driver, a maintenance shop engineer, a neurologist, and a mathematics professor have in common? If they are women, they may find it tough to succeed in a man's world: Women from these four diverse occupations testified to Congress last week that they have been sexually harassed or discriminated against on the job. The four decided to go public with their cases to urge Congress to approve two new bills aimed at helping women enter—and stay in—what they called "male-dominated" jobs. One of the bills is designed specifically to address the problems women face in scientific and technical fields. "Whether women are scientists or truck drivers, physicians or plumbers, they often face isolation, hostility, and harassment in a male-dominated environment," charged Representative Constance A. Morella (R-MD), author of the proposed legislation.

Their stories represented "extreme" situations—such as former National Institutes of Health neurologist Maureen Polsby's account of refusing to go to bed with a man who recruited her for a medical fellowship. But other speakers, including Radcliffe College President Linda S. Wilson, testified that while "overt sexism is less pervasive than in the past," many women still experience subtle forms of discrimination. It is high time, they argued, that Congress, industry, and academia took steps to show that they value having women in the workplace; the witnesses advocate policies that go beyond banning sexual harassment to making sure that women who complain are protected and have means to redress their grievances. "The U.S. is the only industrialized nation in which basic workplace policies assume that women are not in the workplace," says Wilson. She says that American institutions ought to show they value female employees by offering leave and child-care services that recognize that men and women have familial obligations.

In academia, the problem is most glaring in the sciences, where the image of the "ideal scientist" is a man who works 80 hours a week because he has no conflicting family obligations, says Wilson, herself a chemist. Mathematics professor Jennifer Harrison—

who failed to get tenure at the University of California at Berkeley and has filed suit against the university—hammered the point home in her testimony. A recent survey of the nation's top 10 math departments found that they have five tenured women, compared with 281 men with tenure. And where women do break into scientific professions, they consistently earn less money and hold lower ranking jobs than men. In medicine, which is considered to be relatively hospitable to women, less than 10% of the faculty are women, says Catherine Didion, executive director of the Association for Women in Science, who adds that only one American medical school has a female dean.

Those statistics have caught the attention of Congress: A half dozen congresswomen spoke at last week's hearing to try to stir up support for the two bills introduced

last October by Morella. One bill, H.R. 3476, with no price-tag, would set up a 17-member commission to study the problems women face in entering and succeeding in technical professions. The panel's recommendations would go to the President and Congress. Another bill, H.R. 3475, would provide about \$1 million to the Department of Labor for technical assistance to employers and unions to train and assist women in "nontraditional jobs," such as electronics technicians, maintenance engineers, and carpenters.

But before those bills can go anywhere, the Congressional Caucus for Women's Issues may have to deal with a problem close to home—namely, how to change attitudes in Congress, another male-dominated institution. Despite the attention last week's hearing on sexual harassment received, it is still unclear whether Congress is ready to enact legislation that

would help women break into and keep "nontraditional jobs." Neither bill has been scheduled for a vote before the Labor Committee, though the women's caucus has been pushing for one. As Representative Patricia Schroeder (D-CO) looked around at the mostly female audience at the hearing, she quipped: "Part of the problem is, look at the audience. We have got to get more men into nontraditional audiences."

—Ann Gibbons



Complaint registered. Jennifer Harrison (top) and Rep. Constance Morella.