

THE TWITTER WARRIOR

#MeToo provocateur BethAnn McLaughlin battles on behalf of women in STEM-but her own job is in peril

ethAnn McLaughlin has no time for James Watson, especially not when the 90-year-old geneticist is peering out from a photo on the wall of her guest room at Cold Spring Harbor Laboratory's Banbury Center.

"I don't need him staring at me when I'm trying to go to sleep," McLaughlin told a December 2018 gathering at the storied New York meeting center as she projected a photo of her redecorating job: She had hung a washcloth over the image of Watson, who co-discovered DNA's structure, directed the lab for decades-and is wellknown for racist and sexist statements.

The washcloth image was part of McLaughlin's unconventional presentation by turns sobering, hilarious, passionate, and profane-to two dozen experts who had gathered to wrestle with how to end gender discrimination in the biosciences. McLaughlin, a 51-year-old neuroscientist at Vanderbilt University Medical Center (VUMC) in Nashville, displayed the names of current members of the National Academy of Sciences (NAS) who have been sanctioned for sexual harassment. She urged other NAS members-several of whom sat in the room-to resign in protest, "as one does." She chided institutions for passing along "harassholes" to other universities. "The only other places that do this are the Catholic Church and the military," she said.

In the past 9 months, McLaughlin has exploded into view as the public face of the #MeToo movement in science, wielding her irreverent, sometimes wickedly funny Twitter presence, @McLNeuro, as part cudgel, part cheerleader's megaphone. In June 2018, she created a website, MeTooSTEM. com, where scores of women in science, technology, engineering, and math (STEM) have posted mostly anonymous, often harrowing tales of their own harassment. In just 2 days that month, she convinced the widely used website RateMyProfessors. com to remove its "red hot chili pepper" By Meredith Wadman

rating for "hotness." And after launching an online petition, she succeeded last fall in spurring AAAS, which publishes Science, to adopt a policy allowing proven sexual harassers to be stripped of AAAS honors (Science, 21 September 2018, p. 1175).

"It's clear that she has a voice and that people are listening," says biologist Carol Greider of Johns Hopkins University School of Medicine in Baltimore, Maryland, and a co-organizer of the Banbury Center meeting. "She is really trying to change society," adds Carrie McAdams, a psychiatrist and neuroscientist at the University of Texas Southwestern Medical Center in Dallas, who sought out McLaughlin by phone last year to discuss how to report long-ago harassment.

In November 2018, McLaughlin shared the second annual \$250,000 Disobedience Award from the Massachusetts Institute of Technology's Media Lab in Cambridge for "ethical, nonviolent" civil disobedience. And, "impressed by the sheer force of her conviction" at the Banbury meeting, Erin O'Shea, president of the Howard Hughes Medical Institute in Chevy Chase, Maryland, later pledged the institute's financial support for a nonprofit, #MeTooSTEM, that McLaughlin is founding to support survivors of sexual harassment.

Anita Hill, a professor at Brandeis University in Waltham, Massachusetts, who in 1991 accused then-Supreme Court nominee Clarence Thomas of sexual harassment, emailed McLaughlin last summer thanking her for speaking out. Hill also recognized that McLaughlin would pay a price: "The impact on you and your career is not to be underestimated," Hill wrote.

Indeed, McLaughlin has made bitter enemies: Last fall, she says, she was anonymously FedExed a box of feces. And her scientific career is now on the line. Her tenure process was frozen for 17 months starting in 2015

while VUMC investigated allegations that she had posted anonymous, derogatory tweets about colleagues. The probe was spurred by complaints from a professor whom she had testified against in a sexual harassment investigation. VUMC closed the probe without disciplining McLaughlin, but in 2017 a faculty committee, having previously approved her tenure, unanimously reversed itself, according to university documents. Absent a last-minute reprieve, she will lose her job on 28 February, when her National Institutes of Health (NIH) grant expires.

McLaughlin says she has not been looking for other jobs and hopes to continue in science. She says she has seven manuscripts in development and recently submitted a new NIH grant application. But she is consumed with #MeTooSTEM efforts, from supporting individual survivors to meeting with NIH Director Francis Collins in Bethesda, Maryland, last week and addressing his new working group on sexual harassment. "I have a real strong belief that the [Vanderbilt] chancellor and the Board of Trust are going to do the right thing," she says. "If not now, when?"

MCLAUGHLIN GREW UP in Missouri and New Hampshire, exposed to both science and politics. Her mother was an elementary school teacher and her father an engineering graduate student. He died suddenly when McLaughlin was 8, and the struggling family plunged deeper into poverty.

Despite their difficulties, her mother found time to support women campaigning for city council. "A lot of our community was people she politicked with," McLaughlin says.

McLaughlin graduated from Skidmore College in Saratoga Springs, New York, and completed a Ph.D. in neuroscience at the University of Pennsylvania. She "was intense ... and intellectually deep," recalls her postdoc adviser Elias Aizenman of the University of Pittsburgh in Pennsylvania. "She liked to work long and hard hours. She had high expectations of her peers. And of herself."

She was first author on a 2003 Proceedings of the National Academy of Sciences paper that she and Aizenman initially had trouble placing, because it challenged dogma by finding that certain proteins linked to cell death also triggered a cell survival pathway in the brain. "I think I instilled in her to not be afraid to stick her neck out," Aizenman says. "I admire her now for sticking her neck out in a different direction."

In 2002, McLaughlin took a position as a research assistant professor at Vanderbilt's School of Medicine and was promoted to tenure-track assistant professor in 2005. She focused on understanding how brain cells cope with oxygen deprivation during strokes and cardiac arrest, with an eye to finding therapies. She trained students and published steadily in respected journals. (In 2017, two instances of possible image duplication between her papers were flagged on the website PubPeer. McLaughlin acknowledged a mistake, apologized, and requested a correction in one case; a co-author explained the other.)

In 2005, she was key to landing a \$1.2 million private donation to launch an autism research institute at Vanderbilt's Kennedy Center. She also founded VUMC's Clinical Neuroscience Scholars Program in 2011, which links neuroscience graduate students with clinical experts, so students can see real-life manifestations of the conditions they study.

In 2015, McLaughlin helped launch a Vanderbilt-hosted blog, Edge for Scholars, that bills itself as a space for "gritty truths" about academic life. Blogging anonymously as "Fighty Squirrel," she began to develop a public voice on issues she saw affecting female scientists, such as authorship inequity. Her posts soon became the site's most popular, with more than 400,000 views to date.

"She was blogging about the larger Me-TooSTEM movement before it had a hashtag," says Katherine Hartmann, an associate dean at VUMC who recruited McLaughlin. "She's our top blogger, top recruiter, top social media maven that makes it go."

MCLAUGHLIN'S NEW ROLE as the unofficial standard-bearer of a new movement in U.S. science "is not who I had planned on being," she said recently. She says her evolution has been "squarely tied" to her involvement in Vanderbilt's investigation of a sexual harassment case, and what she believes were its consequences for her.

In the fall of 2014, McLaughlin submitted her tenure package, and the following year her department and VUMC's Appointments and Promotions Committee recommended her for tenure, according to a later university report.



But the university halted her tenure process in December 2015, in the wake of allegations that arose during the investigation of a colleague. In early July 2014, former graduate student Erin Watt sued her former Ph.D. supervisor, neuroscientist Aurelio Galli, who was then at the Vanderbilt School of Medicine. Watt alleged in the lawsuit that Galli had sexually harassed and belittled her, leading her to quit the Ph.D. program.

In late July of that year, McLaughlin, her then-husband (a Vanderbilt neuroscientist at the time, who collaborated with Galli). and a visiting McLaughlin friend and collaborator, Dana Miller of the University of Washington in Seattle, were invited to dinner at Galli's home. Miller and McLaughlin later recalled that while preparing dinner, Galli threatened to "destroy" Watt. Miller recalled him calling Watt "a crazy bitch" and vowing to "spend every last dime" to ruin her. The women say Galli showed them a handgun and noted that he had a permit to carry it. Miller, a lesbian, also told investigators that Galli made inappropriate comments about her sexuality.

Galli, now at the University of Alabama in Birmingham, declined to comment on the dinner party. But he told Science: "I have never done anything to any student or any faculty in terms of harassment or retaliation." He provided an email that McLaughlin sent him the day after the party: "Dinner was fantastic. ... Thank you," she wrote with a smiley face.

In December 2014, a judge dismissed Watt's lawsuit against Galli and he was immediately promoted. (Watt settled with Vanderbilt University, which she had also sued.) Miller says she was alarmed by Galli's promotion, and in January 2015 reported the alleged events of the July 2014 dinner to a Vanderbilt administrator. McLaughlin testified in the ensuing investigation, backing up Miller's account. In August 2015, investigators determined that the evidence they had obtained could not support a finding of harassment, according to a letter to Miller from Vanderbilt's Equal Opportunity, Affirmative Action, and Disability Services Department (EAD).

Meanwhile, Galli alleged to EAD investigators that McLaughlin was sending derogatory tweets about unnamed colleagues, including him, from anonymous, multiuser Twitter accounts. McLaughlin admitted writing a tweet that predated the dinner party, complaining, "Galli has 3 R01 [grants] and whines about being broke." A tweet apparently directed at another persondescribed as the "hateful" principal investigator across the hall-said, "I may stab her today." McLaughlin told Science that she does not recall authoring such a tweet. (Four current or former Vanderbilt faculty members reported to have clashed with McLaughlin and contacted by Science declined to comment or did not return interview requests.)

EAD questioned McLaughlin about the tweets, and an associate medical school dean launched a disciplinary investigation of her, according to university documents. During that probe, which stretched from December 2015 to April 2017, McLaughlin's tenure process was frozen. She stopped "We have faculty members who have grabbed and groped and raped and assaulted and retaliated and diminished women. And they can be teaching your classes. It's not OK." BethAnn McLaughlin, Vanderbilt **University Medical Center**

> writing grant applications and taking on graduate students, she says; she felt her future was too uncertain. Her lab shrank. "It had a real impact on my research," she says of the investigation. "My career has been significantly diminished in what should have been the most productive and fun and creative time."

> An outside law firm hired by Vanderbilt concluded that McLaughlin "more likely than not" had written the "I may stab her" tweet, according to university documents. But the faculty disciplinary committee split two to one in her favor, and administrators did not discipline McLaughlin. They restarted her tenure process, and VUMC's Executive Committee of the Executive Faculty approved her tenure in summer 2017.

> But Vanderbilt School of Medicine Dean Jeffrey Balser asked the committee to reconsider. According to university documents, he circulated the faculty disciplinary report to the committee, which then met in person. This time, it voted unanimously to deny tenure. Seven of nine members later said they did not consider the disciplinary report in their decision, according to university documents.

> "Faculty familiar with the bar at Vanderbilt in her department and at the institutional level determined she was up to snuff and voted her up for tenure," says Valina Dawson, a neuroscientist at the Johns Hopkins School of Medicine who knows McLaughlin because both are reviewing editors at The Journal of Neuroscience. "Then the dean decided to intervene. ... You get a bad feeling in your gut about the whole process."

In November 2017, McLaughlin filed a grievance, which is still being considered by a faculty committee. (Jeremy Berg, editor-in-chief of Science in Washington, D.C., wrote a letter last fall in support of McLaughlin, saving her activism had "accelerated" AAAS's decision to develop a process for potentially stripping fellowships from harassers.) A McLaughlin lawyer, Ann Olivarius of McAllister Olivarius in Saratoga Springs, says McLaughlin's case "is a perfect example of the tactics that universities so often use to sweep complaints under the rug."

Spokespeople for both Vanderbilt and VUMC said they could not comment on tenure decisions or grievances, and VUMC declined to make Balser, now its president and CEO, available to comment. Their emailed statement added that, "VUMC is committed to establishing and maintaining an open, inclusive, and equitable environment ... [and] fostering an open and civil exchange of diverse ideas and viewpoints."

Now, McLaughlin is waiting to learn what the grievance committee recommends. Whether the chancellor and Board of Trust concur will determine her future at VUMC.

AS HER TENURE BATTLE continued, Mc-Laughlin grew more outspoken as Fighty Squirrel. Then, in May 2018, she read an account of alleged sexual harassment spanning 40 years by leading cancer scientist Inder Verma (Science, 4 May 2018, p. 480). Verma, who denied the allegations, resigned from the Salk Institute for Biological Studies in San Diego, California, in June 2018. With a few clicks, McLaughlin realized that Verma remained an NAS member in good standing. That, she says, was when she decided to go public.

McLaughlin began to campaign for change from her readily identifiable Twitter account, @McLNeuro. "You cannot ACTIVELY CONTRIBUTE TO FURTHER-ING SCIENCE IN AMERICA if you have impeded the progress of women by harassing, assaulting and retaliating against them. Period. Kick ... Verma out of National Academy of Sciences," she tweeted days after the story ran online. The next day, she launched a petition that has been signed by 5700 people, urging NAS to eject members who have been sanctioned for sexual harassment.

The next month, NAS published a landmark report documenting high rates of sexual harassment in STEM and noting that many funding agencies haven't "meaningful action" (Science, 15 June 2018, p. 1159). In August 2018, McLaughlin launched another petition, which has since drawn 2400 signatures, urging NIH's Collins to deny awards and other privileges to proven harassers. "TimesUp

Francis," it says. When she met with Collins last week, McLaughlin says, he apologized for not responding more quickly to sexual misconduct by grantees. "Apologies and involving #MeTooSTEM survivors are important first steps," she tweeted alongside a photo of herself with Collins. "Lots to do."

Separately, McLaughlin is keeping the pressure on NAS. In December 2018, she tweeted to NAS President Marcia McNutt, "Why don't you quit @Marcia4Science and I'll take over and show some decency?"

As her profile rose, McLaughlin found herself receiving thousands of requests for help; since April 2018, she says she has counseled-often by telephone in the wee hours-more than 200 sexual harassment survivors and witnesses.

One. Debra DeLoach, is a Ph.D. student at the University of Bath in the United Kingdom whom McLaughlin contacted in December 2018, after DeLoach tweeted that she had attempted suicide after being sexually harassed. "What she gave me was a sense of empowerment: the ability to narrate and write my own story. It helped me to reclaim my sense of agency," DeLoach says.

McLaughlin makes no apologies for her profane style. "We have faculty members who have grabbed and groped and raped and assaulted and retaliated and diminished women. And they can be teaching your classes. It's not OK," she says.

But her in-your-face delivery unnerves some establishment supporters. The Society for Neuroscience (SfN) gave her an award for "significantly promoting" women at its annual meeting in San Diego in November 2018 and invited her to speak to a virtual conference last month. But after McLaughlin prerecorded her comments, she received a letter from an SfN lawyer disinviting her. "Some of the content [in your presentation] may be defamatory and ... could expose the society to potential legal liability," it said.

McLaughlin promptly launched a stream of Twitter fire. "Too bad @SfNtweets kicked me off their Gender and Diversity panel this week," she tweeted. "Rebels and truth sayers need not speak." (SfN declined to comment.)

McLaughlin says she's booked with speaking engagements through next fall, and she's dealing with a legal case: In October 2018, Galli sued her for defamation.

But she keeps making people laugh. On the last day of the Banbury meeting, participants arrived in the conference room to find that the wall photos of famous male scientists had been covered with paper photos of female scientists, famous and not. Among them: Nobel laureates Marie Curie and Carol Greider, and BethAnn McLaughlin. ■



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