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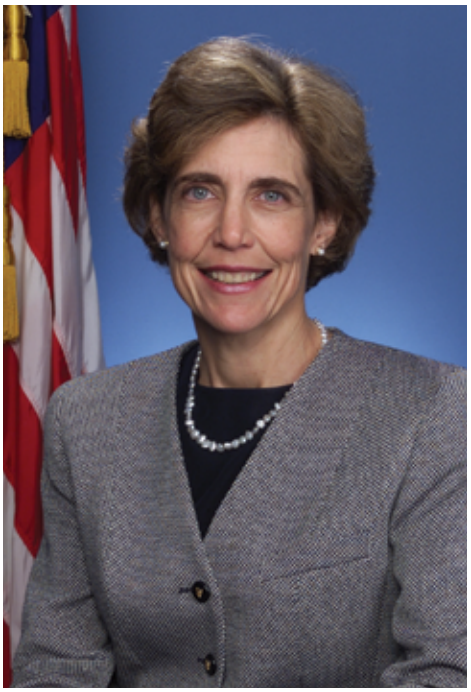
2017 NATIONAL INVENTORS HALL OF FAME INDUCTEE

Frances Ligler

Born June 11, 1951



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Portable Optical Blosensors
U.S. Patent No. 5,077,210

To learn more about the 2017 Class of Inductees, visit http://www.invent.org/honor/inductees/.

10 Things You Need to Know About Dr. Frances Ligler, Pioneer in Portable Optical Biosensors

It's no secret that there is a need for skilled workers to fill jobs in the science, technology, engineering and mathematics (STEM) disciplines. Although women fill half of all jobs in the U.S. economy, they represent only 29 percent of the science and engineering workforce. While the gender gap is beginning to narrow, there is still work to be done.

Frances Ligler, a specialist in the fields of biosensors and microfluidics, is a hero to all young women (and men) who aspire to make their mark. After all, she has been breaking barriers in the male-dominated STEM field for more than 30 years.

Ligler is best known for her work in Portable Optical Biosensors (biosensors are devices that use biological materials to detect a chemical or biological target). Her innovative application of emerging technologies in a variety of fields has made optical biosensors smaller and more versatile and sophisticated. Thanks to her work at the U.S. Naval Research Laboratory (NRL), biosensors are being used in vital areas such as food safety, disease diagnosis, pollution control and homeland security.

Because of Ligler's great accomplishments and her pioneering work with Portable Optical Biosensors, she will be Inducted into the National Inventors Hall of Fame this May.

Here are 10 facts you should know about Frances Ligler:

1. She enjoyed science from an early age, which was encouraged by her family. She credits her success to always being hands-on as a kid.
2. She holds 29 U.S. patents at present, and is currently on the faculty at North Carolina State University and The University of North Carolina at Chapel Hill.
3. For nearly 30 years, she worked for NRL, retiring as a senior scientist for biosensors and biomaterials.
4. Her work at NRL led to 11 commercial biosensor products.
5. She is the winner of numerous industry awards for her work, including the Navy Superior Civilian Service Medal, the American Chemical Society's Hillebrand Prize, the National Drug Control Policy Technology Transfer Award, the Navy Merit Award, the NRL Technology Transfer Award, three NRL Edison Patent Awards, and the National Women in Science and Engineering (WISE) Outstanding Achievement in Science Award.
6. In 2012, she was awarded the Presidential Rank of Meritorious Senior Professional by President Obama.
7. She is a native of Louisville, Ky. Although she grew up in the suburbs, her grandfather had a place in the country where she and her siblings enjoyed spending time outdoors and riding horses.
8. She was a summer intern at Oak Ridge National Laboratory in Tennessee while she was a student at Furman University.
9. She has said that she visualizes things in 3D and understands the importance of prototyping.
10. She was awarded an honorary doctorate from the Agricultural University of Athens, Greece, in 2014.