

# Nobel-winning women follow in Marie Curie's footsteps

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On Wednesday US biochemist Frances Arnold was awarded the Nobel prize for chemistry

The two women to win Nobels in physics and chemistry this week follow in the footsteps of the towering genius that was Marie Curie, the first

woman to win both prizes.

Born Maria Sklodowska in Poland in 1867, Curie experienced grinding poverty, xenophobia and hostility from the scientific establishment after moving to Paris as a student in 1891.

But by the time of her death she was a mega-star, a naturalised French citizen mourned by the public and showered with honours.

Curie and her husband Pierre helped rip aside the veil hiding radioactivity, even coining the term for it.

She was nearly not nominated for the achievement with the 1903 physics Nobel—her husband had to write a last-minute letter to the Academy asking she be added.

The couple went on to discover two new elements, polonium and radium, and made artificial radioactivity from stable elements such as boron and magnesium.

They contributed hugely to health, setting up mobile X-ray machines that could be taken to the battlefields of World War I. They also pioneered the first studies into isotopes to kill tumorous cells.

In 1911, she won the chemistry Nobel, becoming the first woman to win without sharing the prize—Pierre was accidentally killed by a horse-drawn carriage in 1906.

Her daughter Irene became the second woman to win the chemistry Nobel in 1935 for discovering artificial radioactivity.

After years of exposure to radioactive elements and X-rays, Curie died of leukaemia in 1934 at the age of 66. Less than 22 years later, the same

fate awaited Irene, aged just 58.



On Tuesday, Canadian scientist Donna Strickland won the Nobel Physics Prize

## 'What would Curie have thought?'

But since the Curies blazed a trail, only five more [women](#)—out of hundreds of laureates—have won in either of the fields.

And two of those women were awarded just this week.

On Tuesday, Canadian scientist Donna Strickland won the Nobel Physics Prize. Twenty-four hours later, US biochemist Frances Arnold was awarded the chemistry prize. Both women shared the prizes with male colleagues.

Strickland thought of Curie when asked about an Italian physicist who recently suggested physics was "built by men".

"I wonder what Marie Curie would have thought of that," Strickland told Time Magazine.

"It's a silly comment. Obviously, over the history of certainly the last 300 years, it was that men went out and worked, and women stayed home. Yes okay, that's the way it was. But certainly it isn't that women weren't able to do it."

In such a small club, it's no wonder the women laureates have expressed their admiration for their one-of-a-kind predecessor.

Ada Yonath, who was the previous woman to take home a chemistry Nobel before America's Frances Arnold won on Wednesday, said she had been inspired to study science after reading about Curie.

"Women make up half the population," Yonath said after her win in

2009. "I think the population is losing half of the [human brain power](#) by not encouraging women to go into the sciences. Women can do great things if they are encouraged to do so."

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