FALLING
WALLS
FOUNDATION

16.09.2025

MEET THE MINDS SHAPING THE FUTURE: FALLING WALLS ANNOUNCES THE SCIENCE BREAKTHROUGH OF THE YEAR LAUREATES FOR 2025

- **The Falling Walls Science Breakthroughs of the Year are:**

  1) Melina Schuh for the first live-imaging platform to visualise ovulation in real time at the cellular level,

  2) Jian-Wei Pan for the world's first quantum microsatellite for real-time quantum key distribution (QKD) using mobile ground stations,

  3) Lu Fang for the invention of a novel chip offering extreme energy efficiency and computational power for AI,

  4) Myriam Denov for a participatory approach that involves the children born of wartime sexual violence in policy-making processes related to strengthening children's rights worldwide,

  5) Marco Barotti for 3D-printed, solar-powered sculptures that emit the sounds of healthy coral reefs into damaged ecosystems to support their regeneration.

- **The laureates will present their scientific breakthroughs at the Falling Walls Science Summit on 9 November in Berlin.**
- **For press accreditation for the Science Summit or interview request please contact press@falling-walls.com.**
- **Interviews with our laureates and finalists in each category are available online: https://falling-walls.com/science-summit/finalists-2025.**

Berlin, **Germany**, **16 September 2025**. The **Falling Walls Foundation** proudly announces the *Science Breakthroughs of the Year laureates* in the five categories **Life Sciences**, **Physical Sciences**, **Engineering & Technology**, **Social Sciences & Humanities** and **Art & Science**. Each category's expert jury has selected these laureates based on their outstanding potential to advance humanity and create positive change for the global community.
All laureates are invited to present their work on 9 November during the **Falling Walls Science Summit**, which takes place from 6–9 November in Berlin.

The laureates are:

SCIENCE BREAKTHROUGH OF THE YEAR IN LIFE SCIENCES

Melina Schuh – Max Planck Institute for Multidisciplinary Sciences, DE

Breaking the Wall of Invisible Ovulation
Melina Schuh has developed the first live-imaging platform to visualise ovulation in real time at the cellular level. Her breakthrough reveals the molecular mechanisms of this process, opening up new paths in fertility research, women's health and the development of non-hormonal contraceptives.

FALLING
WALLS
FOUNDATION

Read our interview with Melina Schuh, here.

SCIENCE BREAKTHROUGH OF THE YEAR IN PHYSICAL SCIENCES

Jian-Wei Pan – University of Science and Technology of China, CN

Breaking the Wall of Practical Satellite QKD
Jian-Wei Pan and his team have developed the world's first quantum microsatellite for real-time quantum key distribution (QKD) using mobile ground stations. This innovation overcomes the limitations of terrestrial QKD and enables secure global communication networks for the future.

Read more about Jian-Wei Pan, here.

SCIENCE BREAKTHROUGH OF THE YEAR IN ENGINEERING & TECHNOLOGY

Lu Fang – Tsinghua University, CN

Breaking the Wall of High-Power AI Needs
Lu Fang has paved the way for photonic AI with the **"Taichi" chip**—a breakthrough architecture offering extreme energy efficiency and computational power for AI. Her approach transforms the shift from electronic to photonic data processing, laying the groundwork for a sustainable, intelligent future.

Read our interview with Lu Fang, here.

SCIENCE BREAKTHROUGH OF THE YEAR IN SOCIAL SCIENCES & HUMANITIES

Myriam Denov – McGill University, CA

Breaking the Wall of War and Its Impact on Children
Myriam Denov breaks the silence surrounding children born of sexual violence in war. Her participatory approach involves affected youth as co-researchers and develops strategies for policy and practice that strengthen their rights and present new opportunities.

Read our interview with Myriam Denov, here.

SCIENCE BREAKTHROUGH OF THE YEAR IN ART & SCIENCE

Marco Barotti – Studio Marco Barotti, DE

Breaking the Wall of Ecological Healing Through Sound
With Coral Sonic Resilience, Marco Barotti merges art and science: 3D-printed, solar-powered sculptures emit the sounds of healthy coral reefs into damaged ecosystems to support their regeneration. This project transforms art into an active tool for environmental protection.

FALLING
WALLS
FOUNDATION

Read our interview with Marco Barotti, here.

MORE THAN 1500 SUBMISSIONS SHOW URGENT NEED FOR SCIENTIFIC SOLUTIONS TO GLOBAL CHALLENGES

"With more than 1500 submissions from 290 of the world's leading scientific institutions and universities in 123 countries, we have received more nominations than ever before. Science is and remains vital to tackling the big societal challenges of our time. These Science Breakthroughs of the Year demonstrate fantastic approaches to making a change in the world for the better", says **Dr. Andeas Kosmider, Managing Director of the Falling Walls Foundation**.

For interview requests regarding our *Science Breakthroughs of the Year* please contact us at **press@falling-walls.com.**
For press accreditation requests please contact us at **press@falling-walls.com.**

Press contact
Felix Mihalek, PR Manager
+49 30 609 883 97 80
press@falling-walls.com

About the Falling Walls Science Summit
Since its inception in **2009**, the **Falling Walls Science Summit** has become a premier international forum for scientific breakthroughs and interdisciplinary dialogue. Held annually in **Berlin from 6–9 November,** the **Science Summit** commemorates the fall of the Berlin Wall by bringing together global leaders to explore how science can shape a sustainable future.

With its key formats—**Falling Walls Pitches**, **Falling Walls Circle** and **Falling Walls Science Breakthroughs**—the Summit fosters collaboration among academia, industry, politics and civil society to drive transformative change. The event is organized by the **non-profit Falling Walls Foundation**. More information: falling-walls.com.

About the Falling Walls Foundation
The **Falling Walls Foundation gGmbH** is a Berlin-based non-profit organisation dedicated to advancing science communication and public engagement with research. Its initiatives bring together international experts to develop breakthrough solutions for global challenges.
Alongside the **Falling Walls Science Summit**, the Foundation runs **Berlin Science Week** as well as specialised programmes such as **Falling Walls Lab, Falling Walls Engage, Falling Walls Venture, Female Science Talents** and **Young Entrepreneurs in Science**. Since **2020**, the Foundation has also organised the **Creative Bureaucracy Festival**, an international platform for public sector innovation.
The Foundation is supported by the **German Federal Ministry of Research, Technology and Space**, the **Berlin Senate,** the **Hannover Re Foundation**, the **Museum for Natural History, Berlin, PD – Public Sector Advisory**, **Volkswagen Foundation** and more than 100 additional international philanthropies, academic institutions, companies and NGOs. Learn more: https://falling-walls.com/foundation.