

FALLING WALLS FOUNDATION

Falling Walls announces Science Breakthroughs of the Year 2022

- The prestigious title is awarded for groundbreaking research in all academic disciplines. Today Falling Walls announces the Breakthroughs in the categories Life Sciences, Physical Sciences, Engineering and Technology, Social Sciences and Humanities, Art and Science, Future Learning, Science and Innovation Management.
- The Science Breakthroughs of the Year 2022 in categories Science Start-Ups, Science Engagement and Emerging Talents will be announced during the Pitch Competition on 7 November at the Falling Walls Science Summit.
- On 9 November, the anniversary of the peaceful fall of the Berlin Wall, the Science Breakthroughs of the Year 2022 will take up the stage at the Falling Walls Science Summit in Berlin.
- New interactive Summit format “Breakthrough Conversations”: the online audience will have an opportunity to participate in live conversations with this year’s laureates.
- Find out more about the Science Summit three-day programme and the first speakers here: [Falling Walls Science Summit 2022](#).

Berlin, Germany, 13 September 2022 – Which are the next walls to fall in science and society? Today the Falling Walls Foundation announces the first laureates of the Science Breakthrough of the Year 2022 award. The distinguished juries chaired by Helga Nowotny, President Emerita of the European Research Council, selected the winning projects out of 1.000 nominations submitted from 105 countries.

“The Falling Walls Science Breakthroughs of the Year 2022 provide answers to urgent questions such as climate justice or the current global energy crisis. All nominated projects are of outstanding scientific excellence! I thank all participants and awardees for breaking the walls towards crucial scientific achievements with their outstanding work”, says Jürgen Mlynek, Chairman of the Falling Walls Foundation.

The recipients of the award are:

Life Sciences: Marcus Mall - Charité – Universitätsmedizin Berlin

[Breaking the Wall to Cystic Fibrosis Treatment](#)

Marcus Mall led a clinical study of a combination therapy with three CFTR (cystic fibrosis transmembrane conductance regulator) modulators showing 90% efficiency rate.

Physical Sciences: Nathalie Picqué – Max Planck Institute for Quantum Optics

[Breaking the Wall of the Limits of Interferometry](#)

Nathalie Picqué developed the dual-comb interferometer that can be used in spectroscopy and holography and offers unique features such as frequency measurements, accuracy, precision, and speed.

Engineering and Technology: Ting Xu – University of California, Berkley

[Breaking the Wall to Programmable Plastic Degradation Through Enzymes](#)

Ting Xu developed enzyme-embedded polymers that afford on-demand modification and/or programmable plastic degradation during manufacture, utilization, and disposal.

Social Sciences and Humanities: Sunil Amrith – Yale University

[Breaking the Wall to Reimagining Environmental Justice in Historical Perspective](#)

Sunil Amrith argues for a new perspective on environmental history with focus on the problematics of environmental harm accelerated in tandem with human inequality, deepening unfreedom and global migration.

Art and Science: Monika Seyfried, Cyrus Clarke, Jeff Nivala – Data Garden

[Breaking the Wall to Organism-Based Data Centers](#)

Data Garden is an organism-based data center and an interactive installation of a carbon negative data infrastructure that features tobacco plants and Arabidopsis containing text, image, and sound files in their DNA.

Future Learning: Aline Sara – NaTakallamBreaking the Wall to High-Quality Digital Language Services with Impact

NaTakallam offers digital language services such as language classes, translation, virtual interpretation, and cultural exchange delivered by refugees through the digital economy.

Science and Innovation Management: Robert Downey Jr. & Rachel Kropa – Footprint Coalition Science EngineBreaking the Wall to Innovative Fast Grant Models to Fund Environmental Research

Science Engine enables scientists to share and crowdfund their research on climate and biodiversity crises by engaging directly with the platform's audience.

The online audience will have an opportunity to participate in a live conversation with this year's laureates in a new interactive format, Breakthrough Conversations. The Breakthrough Conversations with the Science Breakthroughs of the Year 2022 will take place parallel to the main Summit programme on 9 November. The talks will be moderated by science editors from the Springer Nature publishing house, the long-standing partner of the Falling Walls Foundation.

The remaining Science Breakthroughs of the Year 2022 in the categories Science Start-Ups, Science Engagement and Emerging Talents will be announced after the shortlisted participants pitch their projects on the first day of the Falling Walls Science Summit. On 9 November all ten Science Breakthroughs of the Year 2022 will return to the stage to present their groundbreaking research for the audience in Berlin and online.

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About the Falling Walls Science Summit

Falling Walls Science Summit is a leading international, interdisciplinary and intersectoral forum for scientific breakthroughs and science dialogue between global science leaders and society. The event takes place every year from 7–9 November in Berlin, commemorating the fall of the Berlin Wall. With formats Falling Walls Pitches (7 November), Falling Walls Circle (8 November) and Falling Walls Science Breakthroughs of the Year (9 November), the Falling Walls Science Summit is the leading forum for global science leaders from academia, business, politics, the media, and civil society to debate the potential of scientific breakthroughs to solve grand challenges and shape a sustainable future. The Falling Walls Science Summit is organised by the non-profit Falling Walls Foundation. More: www.falling-walls.com