2026 INTERNATIONAL AWARDS

SUMMARY

A word from Jean-Paul Agon

CHAIRMAN OF L'ORÉAL
PRESIDENT OF THE FONDATION L'ORÉAL

Women are vital contributors to the universal reach of science. However, they still face systemic barriers in relation to their ability to speak, direct and shape major scientific research trends.

After years of significant advances, the scientific world is experiencing a moment of reflection – substantial budget cuts, equality issues called into question – a tidal wave that threatens to reduce women to silence yet again. But a science that extinguishes female voices is a science that only impoverishes itself.

This is not the end. Rather, these observations represent an alarm signal. They also inform our roadmap in the face of a double imperative of moral obligation and absolute necessity.

For 28 years, together with UNESCO, we have refused to give up. This year, our *For Women in Science* programme has reached a historic milestone – 5,000 women scientists supported in 140 countries. That's 5,000 women whose journey could have been disrupted by obstacles, and who have instead been able to write history by advancing science.

The five 2026 laureates whom you will discover in these pages provide a vivid reminder that science wins when it includes women. And with them, all of us win too.

And our obligation goes even further. We are focusing firmly on young people. The *For Girls in Science* programme, implemented with UNESCO on four continents since last year, is taking action where it matters – before stereotypes become glass ceilings.

The 2026 edition is the first to be directed by M. Khaled El-Enany, as the Director-General of UNESCO. His commitment to gender equality and conviction that we need to collectively forge the solutions are guarantees that our shared fight will gain courage and momentum. I am delighted to renew our historic partnership for another six years. This sends an unequivocal message – our commitment to empowering women in science is stronger than ever.

In the face of forceful headwinds, the Fondation L'Oréal only presents one response: action. And we will continue, with the same determination, until the talents of every woman can be expressed fully and freely.

A word from
Khaled El-Enany

DIRECTOR-GENERAL OF UNESCO

UNESCO's vision is clear: science can only fulfil its promise when it is open to all talents. And this openness must begin early: in classrooms, families, textbooks, laboratories, and in the confidence we give every girl to ask questions, imagine solutions, and pursue knowledge.

Empowering women in science is therefore not only a matter of equity, but also a prerequisite for innovation and sustainable development.

If progress has been made, women still represent only one in three researchers worldwide, and their presence remains even more limited in leadership positions. These gaps are not about ability. They are about access, and are shaped by persistent stereotypes, unequal opportunities, lack of visibility, and barriers that continue to hold talent back at every stage of a scientific career.

For nearly three decades, UNESCO and the Fondation L'Oréal have worked together to change this reality. We are proud to renew this landmark partnership with the shared ambition: to accelerate progress for women in science, and strengthen the pathway that leads from early curiosity to scientific excellence.

The *For Women in Science* International Awards have honoured 142 Laureates, including seven Nobel Prize winners. Beyond these awards, the program has grown into a global initiative that has accompanied more than 5,000 women researchers and has helped foster a new generation of scientific leaders.

Today, this commitment takes an important step forward with the new *For Girls in Science* initiative. It reflects a lesson learned through decades of action: inequality in science is not only solved by celebrating women of incredible talent who overcame the odds, but by also removing these obstacles early on. This means challenging stereotypes and fostering scientific confidence from an early age, while empowering girls to explore, question, and innovate.

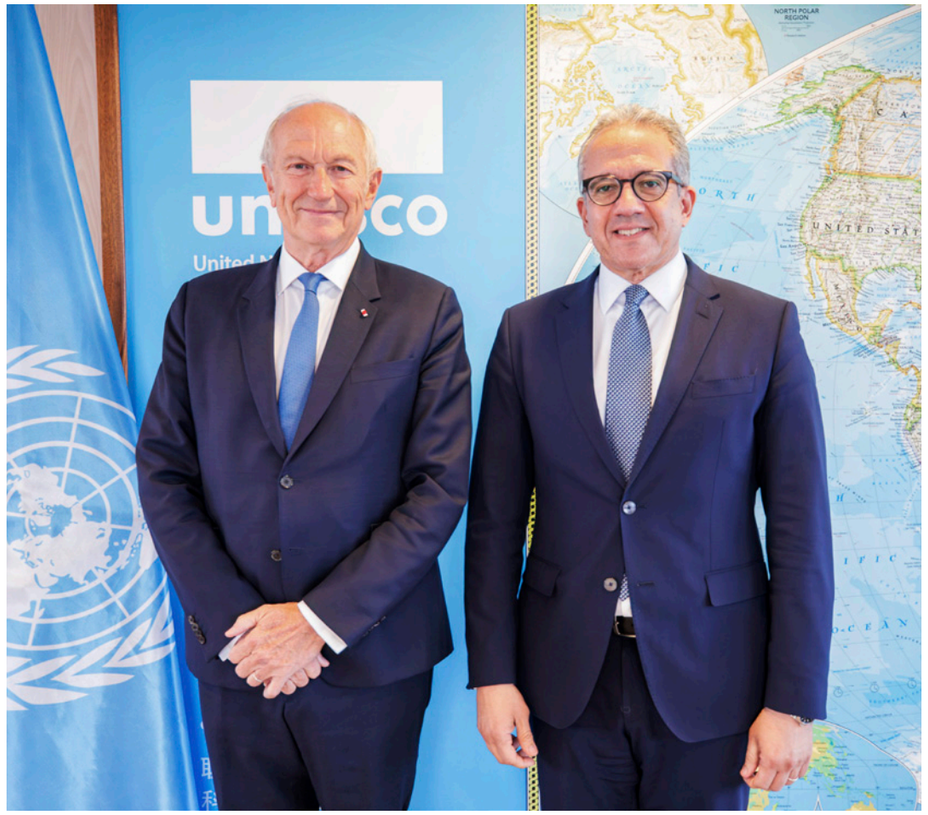
In this spirit, the 2026 laureates embody the transformative power of science when diversity thrives. From improving care for children with cardiovascular diseases to advancing mental health, genomics, climate-resilient agriculture, and regenerative medicine, their work addresses some of the most pressing global challenges of our time and contributes to the International Decade of Sciences for Sustainable Development.

For younger generations, these laureates are more than exceptional scientists. They are also role models, and trailblazers. Through their achievements, they show millions of girls that there is a place for them in science and that they can shape it.

UNESCO remains committed to the vision of a world where women and girls are not only part of scientific progress but leading it.

28 YEARS OF COMMITMENT

A new era for a historic partnership



Twenty-eight years after its creation, the partnership between the Fondation L'Oréal and UNESCO is entering a new phase. Renewed for six years, it was signed under the leadership of Khaled El-Enany, UNESCO's new Director-General, building on the strong commitment previously led by Audrey Azoulay.

The partnership is also expanding in scope. The *For Girls in Science* programme, previously led solely by the Fondation L'Oréal, is now a joint initiative and will benefit from strengthened international deployment, leveraging UNESCO's global network and operational reach to significantly amplify its impact.

Since 1998, the Fondation L'Oréal and UNESCO have joined forces to recognize the contribution of women to science and to break down the barriers hindering their progress. Twenty-eight years later, this pioneering partnership has reached a new milestone: 5,000 women researchers supported worldwide. This symbolic achievement is accompanied by a renewed commitment for the next six years and an expanded ambition to benefit younger generations.

A mission as urgent as ever

To this day, women still represent only one in three researchers worldwide. Fewer than 4% of scientific Nobel Prizes have been awarded to women since 1901, and women account for just 19% of members of national science academies.

These persistent imbalances are not only a matter of equity; they also represent a significant constraint on scientific progress. By limiting access to the full pool of global talent and perspectives, the research ecosystem reduces its capacity to address the complex challenges of our time – climate change, public health, and technological transformation.

Furthermore, this lack of diversity has tangible consequences for the quality of medical knowledge itself. For a long time, for example, certain conditions – such as strokes – have been inadequately studied in women, leading to delayed diagnoses and higher mortality rates.

In this context, the mission led by the Fondation L'Oréal and UNESCO is more critical than ever: to advance gender equality in science, support women researchers throughout their careers, and foster greater visibility of role models for future generations.

A symbolic milestone: over 5,000 researchers supported

In 2026, the L'Oréal–UNESCO *For Women in Science* programme reached a historic threshold: over 5,000 women researchers have been recognized and supported since its inception, across more than 140 countries. This makes it one of the world's largest networks of women scientists. Among them are 142 International Laureates, seven of whom have received the Nobel Prize: Christiane Nüsslein-Volhard, Elizabeth H. Blackburn, Ada Yonath, Emmanuelle Charpentier, Jennifer A. Doudna, Anne L'Huillier, and Katalin Karikó. This unique, vibrant, and international community spreads its influence far beyond the scientific sphere.

An intergenerational approach: from vocation to excellence

The strength of this partnership lies in its holistic approach, supporting women scientists at every stage of their lives. Each year, the International Award honours five exceptional researchers, amplifying their visibility to global audiences. Regional and national programmes, deployed in over 140 countries, support young talents at the start of their careers through 50 local initiatives and nearly 50 partner scientific institutions. Finally, the *For Girls in Science* programme is aimed at high school students to spark vocations and dismantle gender stereotypes from an early age.

***For Girls in Science:* a new stage**

This programme, which aims to inspire girls to pursue careers in science, is gradually expanding internationally thanks to a joint initiative by the Fondation L'Oréal and UNESCO. The programme leverages the UNESCO Associated Schools Network (ASPnet), which brings together nearly 10,000 institutions in 170 countries, over 387,000 teachers and 5 million students. The goal: to reach up to 5 million young people, teachers and school communities by 2030, combining educational tools for students and teachers, and the highlighting of female role models.

Announced last year, this programme will launch this year in five regions: Africa, Arab States, Asia and the Pacific, Europe and North America, Latin America and the Caribbean.

A renewed commitment

Against this backdrop, the Fondation L'Oréal and UNESCO have sealed the renewal of their partnership for an additional six years. This symbolic signing, taking place under UNESCO's new Director-General, forcefully reaffirms the continuity of a commitment and the shared ambition to go further, together, in service of women and girls in science.

2026 KEY FIGURES

MORE THAN
5,000
WOMEN RESEARCHERS SUPPORTED

NEARLY
50
PARTNER SCIENTIFIC INSTITUTIONS

142
INTERNATIONAL LAUREATES SINCE 1998

7 NOBEL PRIZES IN SCIENCE AMONG THE LAUREATES

50
NATIONAL AND REGIONAL PROGRAMS

140 COUNTRIES AND TERRITORIES COVERED

500
SCIENTISTS INVOLVED IN SELECTION PROCESS EACH YEAR

28
YEARS OF PARTNERSHIP

THE INTERNATIONAL AWARDS

The outstanding contribution of women to science

Each year since 1998, the Fondation L'Oréal and UNESCO have honoured five brilliant female scientists, promoted their work globally, and empowered them to act as role models for aspiring women scientists and future generations. The Laureates have been recognized for their scientific achievements and remarkable contributions to advancing research on a global scale. To support women-led scientific excellence in addressing societal needs worldwide, one Laureate from each of the following five regions is awarded annually: Africa and the Arab States, Asia and the Pacific, Europe, Latin America and the Caribbean, and North America.

A RIGOROUS SELECTION PROCESS

More than

500 nominations from scientists

FROM NEARLY 90 COUNTRIES

A total of 50 shortlisted

REPRESENTING 5 GEOGRAPHICAL REGIONS

Selected by 86 eminent scientists
(Peer-review jury)

Selection of the five Laureates

BY THE INTERNATIONAL JURY

2026 JURY

LIFE AND ENVIRONMENTAL SCIENCE

The five laureates were selected by a distinguished international scientific jury.

PRESIDENT OF THE JURY

Professor Brigitte Lina Kieffer

FRANCE

NEUROSCIENCES

Research Director Emeritus at the National Institut for Health and Medical Research (INSERM) France, Member of the French Academy of Sciences, L'Oréal-UNESCO Laureate 2014

Professor Kristi S. Anseth

UNITED STATES OF AMERICA

HEALTH BIOTECHNOLOGY

Tisone Distinguished Professor of Chemical and Biological Engineering, an Associate Professor of Surgery, and a Howard Hughes Medical Investigator at the University of Colorado at Boulder, L'Oréal-UNESCO Laureate 2020

Doctor Khaled Machaca

QATAR

PHYSIOLOGY AND CELL BIOLOGY

Professor of Physiology and Biophysics, Associate Dean for Research, Weill Cornell Medical College in Qatar, Doha

Professor Anne Dejean

FRANCE

MOLECULAR BIOLOGY

Professor at the Institut Pasteur, Research Director at INSERM Institut Pasteur. Member of the French Academy of Sciences, Paris, L'Oréal-UNESCO Laureate 2010

Doctor Xiangbin Pan

CHINA

CLINICAL MEDICINE

Director of Cardiovascular Surgery, Fuwai Hospital, Chinese Academy of Medical Sciences

Professor Appolinaire Djikeng

KENYA

AGRICULTURE SCIENCES AND BIOTECHNOLOGY

Director General of the International Livestock Research Institute (ILRI) and Senior Director for Livestock-Based Systems of the CGIAR

Doctor Firdausi Qadri

BANGLADESH

IMMUNOLOGY

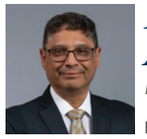
Senior Scientist and Head Mucosal Immunology and Vaccinology Unit, Infectious Diseases Division. International Centre for Diarrhoeal Disease and Research (ICDDR,B), L'Oréal-UNESCO Laureate 2020

Professor Andrea Gamarnik

ARGENTINA

VIROLOGY

Principal Investigator of the National Research Council (CONICET), Director of the Instituto de Investigaciones Bioquímicas de Buenos Aires, L'Oréal-UNESCO Laureate 2016



Professor Augusto Rojas-Martínez

MEXICO

HUMAN GENETICS

Professor of Human and medical genetics, School of medicine and health science, Tecnológico de Monterrey

Professor Philip Hieter

CANADA

MOLECULAR GENETICS AND MEDICINE

FCAHS, FRSC, Professor of Medical Genetics, Michael Smith Laboratories, University of British Columbia

Professor Boshra Salem

EGYPT

ENVIRONMENTAL SCIENCES

Emeritus Professor at the Department of Environmental Sciences - Faculty of Science, Alexandria University

2026 LAUREATES

LAUREATE FOR AFRICA AND THE ARAB STATES

Professor Liesl Zühlke

Professor at the University of Cape Town and Vice President of the South African Medical Research Council, South Africa.

Rewarded for improving care for children with heart conditions especially rheumatic heart disease (RHD) that disproportionately affects children living in poverty. Professor Zühlke's research repositioned RHD as a socio-political issue tied to health system deficiencies and inequities. Her dedication to scientific excellence, leadership in global health, and capacity building activities have improved the lives of vulnerable children with cardiovascular disease.

LAUREATE FOR ASIA AND THE PACIFIC

Professor Felice Jacka

Deakin Distinguished Professor, OAM, and Director of the Food & Mood Centre at Deakin University, Australia.

Rewarded for establishing the field of nutritional psychiatry. Professor Jacka's research unravels the complex relationship between diet and mental and brain health and recognises diet and nutrition as risk factors for mental disorders. Her leadership in training, providing evidence-based resources to professionals and the public, has transformed how mental health is understood and care practiced globally.

LAUREATE FOR EUROPE

Professor Sarah Teichmann

FMedSci FRS, Chair in Stem Cell Medicine at the University of Cambridge, United Kingdom.

Rewarded for her outstanding interdisciplinary research using genome science and computational biology to understand the human body at single cell resolution. Professor Teichmann's pioneering work in single-cell technologies provides fundamental resources for biomedical research, drug discovery, and public health. She is an inspiring role model, an advocate for inclusion in science, and a leading educator.

LAUREATE FOR LATIN AMERICA AND THE CARIBBEAN

Professor Raquel Lia Chan

Superior Researcher at CONICET, Professor at the National University of Litoral (UNL), Director of the Litoral Agrobiotechnology Institute (CONICET-UNL), Argentina.

Rewarded for transforming fundamental plant biology into agricultural innovation through her discovery of genes and biological mechanisms that enhance plant tolerance to changing environments. Professor Chan translated this knowledge into drought-tolerant wheat, maize, rice, and soybean varieties, contributing to global food security. She is a visionary leader and devoted mentor who has trained a future generation of plant scientists.

LAUREATE FOR NORTH AMERICA

Professor Gordana Vunjak-Novakovic

University Professor, Mikati Foundation Professor of Biomedical Engineering at Columbia University, United States of America.

Rewarded for her pioneering work in human tissue engineering and regenerative medicine. Professor Vunjak-Novakovic's exceptional contributions in developing "organs-on-a-chip" and biological substitutes to repair, maintain or improve tissue function have been instrumental in recapitulating organ physiology. Her outstanding track record as an innovator, educator, and role model for women in science and engineering is inspirational.

Professor Liesl Zühlke

CARDIAC AND CARDIOVASCULAR SYSTEMS

Professor at the University of Cape Town and Vice President of the South African Medical Research Council, South Africa

Revolutionising medical understanding of cardiac disease in children

Professor Liesl Zühlke is awarded for improving care for children with heart conditions, particularly rheumatic heart disease (RHD), a neglected illness with one of the highest cardiovascular mortality rates among children worldwide. It is particularly prevalent in low and middle-income countries, disproportionately affecting children, adolescents and young adults living in poverty. And with 23 per cent of the 50 million people affected living in Sub-Saharan Africa, she has played a central role in making this a political priority on the continent, highlighting the connection to alleviating poverty, improving health systems and achieving gender equality.

Her research has made pioneering contributions to preventing and treating childhood-onset cardiac disease, while improving the detection, management and long-term treatment of cardiovascular disease in women.

“I hope that the results of our research are shared around the world, transforming the lives of individuals with childhood-onset cardiac disease,” she explains. “This will help to ensure that those living with heart disease in low and middle-income countries are diagnosed promptly and receive the necessary care and support to live their best possible life.”

In particular, she hopes to contribute to ensuring that innovative treatments she has helped to advance, such as a vaccine to protect against Streptococcus A (which would prevent RHD), will be available, affordable and accessible to all who live in RHD-endemic countries.

Harnessing research to influence policy and practice

“I have been fascinated with my discipline from the outset,” she says. “As my career has evolved and expanded, I have been able to foster and cultivate my passion by teaching, training and mentoring.”

Her first presentation and research project resulted in a decisive change of practice in her department, leading to improved diagnosis and a direct impact on the survival of patients. This was a defining moment in her career. “We made the diagnosis more rapidly, referred for surgery faster and achieved far better outcomes, thus saving

lives," she says. "This showed me what 'evidence-based medicine' could do and set me on the path to research."

Professor Zühlke has since revolutionised the approach taken by her paediatric cardiology department to congenital heart disease by incorporating research into clinical practice, with significant results. She founded and directs the Children's Heart Disease Research Unit, which conducts bench-to-bedside research, including being involved in the *International Quality Improvement Collaborative (IQIC),* which pursues the idea of optimising patient outcomes. Through this initiative, she has spearheaded action that has reduced loss to follow-up rates following cardiac surgery from over 20 per cent in 2017 to less than 1 per cent today.

Beyond this, her studies on the ground have helped her to gather scientific evidence to influence policy and practice. Her discoveries were instrumental in the *World Health Assembly Resolution against Rheumatic Fever and Rheumatic Heart Disease* in 2018, for example. She has also presented her findings at the United Nations General Assembly, multiple World Health Assembly meetings and all the premier cardiovascular conferences. She also played a vital role in the creation of the *Addis Ababa Communiqué*, a pan-African policy framework that has stimulated commitment to RHD control in numerous countries.

A journey of determination and wonder

Professor Zühlke had always wanted to become a doctor and as an avid reader enjoyed reading about the scientific breakthroughs, discoveries and lives of famous scientists such as Curie, Harvey, Jenner and Pasteur. The more she learnt about illness, the more she wanted to contribute to its resolution. "The first heart transplant took place in my city, in a hospital that I could almost see from my house, adding to the wonder of this incredible achievement," she says.

She was never deterred from pursuing medicine and aspired to specialise in paediatrics, despite the difficulties of completing her education during the height of apartheid unrest in South Africa. Her family especially encouraged her aspirations and provided a deep sense of strength and support. "In order to see me fulfil my goals, they made tremendous sacrifices to guarantee that I had the best possible education," she explains. At medical school, she met exceptional women scientists from similar backgrounds who provided a further source of inspiration.

Navigating a career as a woman in science

To promote gender equality in science she believes that decisive steps must be taken. "Women can and do make outstanding scientists," she says. Similarly, being a 'superstar' should not be the only way to succeed. There must be more support for the average woman scientist, in a world where her male counterpart still benefits from superior surroundings, resources and assistance. She is therefore participating in various projects to empower future female scientists, including *Women as One, STEM Her* and *GenS*. She uses her position at the South African Medical Research Council to advance, empower and strengthen African-led research of the highest standard.

She began her own journey in the male-dominated world of cardiology where, at the time and largely even now, there were no family-friendly tenured positions. Hence, she had to resign to complete her initial research and did not have a full-time position upon her return from her PhD studies. Throughout her career, she has faced visible and invisible barriers due to race, language and background. Moving to Europe for her husband's fellowship meant a pause in her training; she believed her own career was over. Meeting an outstanding female researcher role model during that time transformed her view, helped her become more resilient and reset her goal to make an impact in her discipline and community.

"I never would have guessed that I would return to South Africa and watch my career develop as it did," she says. "I have always tried to pass on the lessons I have learnt and improve pathways for future generations."

As a final word to aspiring women scientists, she says: "You are free to do anything you choose. It's a wonderful, rewarding and intriguing field. You'll succeed by being authentic, finding good mentors and collaborators, and cultivating positive relationships."

> *"I have been fascinated with my discipline from the outset. As my career has evolved and expanded, I have been able to foster and cultivate my passion by teaching, training and mentoring."*

Professor Felice Jacka

PSYCHIATRY

Deakin Distinguished Professor, OAM, and Director of the Food & Mood Centre at Deakin University, Australia

Unlocking the link between diet and mental health

Professor Felice Jacka's research has unraveled the complex relationship between diet, nutrition and mental health, highlighting the direct link with the development of disorders and establishing the new field of nutritional psychiatry. In particular, her work has shown that what one eats is not simply a risk factor for heart disease or diabetes, but a powerful and modifiable determinant of depression, anxiety and brain health. Her research illuminates how nutrition can support mental and brain health across the lifespan, empowering people to make more informed dietary choices. Ultimately, Professor Jacka aims to help promote radical changes to the global food system.

"Food is the fuel that virtually powers every action of our body and brain," she explains. "If we thought of ourselves as an expensive, exquisitely engineered car, we would insist on the highest quality fuel and oil to keep it performing at its best. My research asks us to nurture our brains with food in the same way. I aim to generate the evidence and support the advocacy needed to create fundamental policy changes."

While her work has influenced clinical guidelines and is cited in more than 100 high level policy documents worldwide, Professor Jacka believes that the dominance of the food industry has created a food system that promotes ill health, premature death and biodiversity loss. Over the coming years, she aims to help reshape mental health care and public policy so that nutrition is recognised as a core component of prevention and treatment, alongside traditional therapies. For the wider public, this transformation should provide the support and guidance needed to adopt eating habits that protect mood, cognition, wellbeing and resilience throughout their life.

An empowering journey of discovery

She experienced a disrupted education in her early years, partly due to family breakdown and her own experiences of depression and anxiety. "I had never for one moment considered becoming a scientist, I was only interested in painting, drawing, sculpture and printmaking," she says. "I was also a rebellious teenager who left home early and struggled to find my place in the world."

Her parents were of an older generation and considered a woman's role in life to be a mother and homemaker. Meanwhile, she struggled to engage academically at school, and with little support for mental health at the time, was only punished for not succeeding or acting as expected.

Yet a pivotal moment of discovery still awaited her. Having first studied fine art and later psychology, she came to the realisation that her deepest interest lay in the medical dimensions of human behaviour and wellbeing. Professor Jacka subsequently volunteered as an intern at a newly established psychiatric research unit where she had to teach herself medicine rapidly using only a small medical dictionary and printed research papers. "To find myself suddenly a scientist, and loving it, was a revelation," she says. "For the first time, I also received the encouragement and mentoring that I had craved all my life."

In particular, among her most important and influential mentors, her research supervisor, Professor Michael Berk, gave her the courage to present her early research ideas to senior colleagues. He also approved her revolutionary PhD hypothesis, that diet quality was independently associated with clinical depressive and anxiety disorders, an idea that came to her in a true Eureka moment while researching the link between food and the immune system.

"For decades, a 'mind–body dichotomy' paradigm, in which nothing below the neck was seen as particularly relevant, had dominated psychiatry and hindered an examination of the importance of food," she says. "I was not bound by those models and was able to bring my longstanding interest in food to the field."

Conducting medical research in Australia has required significant energy and resilience. Working with partners in diverse countries allowed her to gain access to the information that proved her theory. The publicity from her PhD work opened doors to collaborations in Norway, the UK and Japan, enabling her to rapidly build the early evidence base for nutritional psychiatry. Back in Australia, she focused on older age mental health and led the first study to demonstrate the relationship between diet quality and the part of the brain responsible for memory, learning and spatial orientation. Her most recent collaborative networks focus on the global food system and agriculture.

Fighting gender inequality

As a young woman in Australia in the 1970s, she and her friends were subject to discrimination, sexual violence and coercion, and what she describes as outright misogyny. "This was our 'normal'," she says. "When my daughters were growing up, I felt genuinely optimistic about the future of women's rights and our place in the world. Yet the persistence of powerful networks and the ongoing barriers to women's political leadership confirm the need for profound structural change."

Now, she feels confident that the world is moving decisively in the right direction, with gradual shifts in funding bodies and university policies enabling women to stay in research over the long term. However, she explains that 'imposter syndrome' and a lack of confidence remain a reality for many women scientists. She believes that girls must receive more positive, encouraging messages, and wholeheartedly supports her own students and young female scientists in pursuing their passion for research and competing effectively in the field.

"Acting as a visible role model matters," she concludes. "I identify strongly as a feminist and I live and breathe the motto 'When I succeed, we all succeed'. That's why I encourage women scientists to ask directly for what they need and deserve; this is the best way to overcome imposter syndrome and reach the top of your game."

> *"To find myself suddenly a scientist, and loving it, was a revelation. For the first time, I also received the encouragement and mentoring that I had craved all my life."*

Professor Sarah Teichmann

CELL BIOLOGY

FMedSci FRS, Chair in Stem Cell Medicine at the University of Cambridge, United Kingdom

From molecules to medicines: deciphering every cell in the human body

A Fellow of the Royal Society and the Academy of Medical Sciences, Professor Sarah Teichmann is awarded for her outstanding interdisciplinary research leveraging genome science and computational biology to understand the human body at single cell level. Her pioneering work in single-cell technologies provides fundamental resources for biomedical research, drug discovery and public health. In particular, she explores the inner workings of our cells, focusing on how proteins unite to take action and how genes are controlled to drive our immune responses. Her leadership of collaborative projects, including the international Human Cell Atlas consortium (HCA), a revolutionary project to understand the role of every cell in our bodies, reflects her commitment to both scientific discovery and inclusion in science.

“The adult human body is comprised of approximately 37 trillion cells,” she explains. “To gain deep molecular insights into human health and disease, we must develop a comprehensive understanding of every single cell, characterising gene activity and exploring the interactions between proteins. I focus on data-driven research to decipher the molecular patterns of life, transforming the level of cellular detail available, discovering how disease develops to create a foundation for new therapies.”

Professor Teichmann specialises in sequencing DNA and RNA in individual cells. She traces the lifecycle of a gene across every stage of biological activity, investigating how genes are controlled by chemical ‘switches’ and regulatory proteins, how they are translated into RNA, and ultimately how the resulting proteins govern internal cell behavior and signaling. By mapping these processes, she and her team investigate how different levels of gene activity and protein interactions drive the development and function of diverse immune cell types and responses throughout the body.

Her achievements include categorising individual cells within the human maternal-fetal interface, in order to help scientists and clinicians better understand how the mother’s immune system accepts the embryo without attacking it. Her studies of cells in the lung have also contributed to understanding respiratory diseases such as asthma, fibrosis and COVID-19, which has informed public health policy on infection control.

Her laboratory produced the first comprehensive single cell resolution map of the heart. This led directly to a ground-breaking tool that matches known drugs to the most relevant cell and enables doctors to optimise the efficiency of the medicine, while preventing potential side effects.

Importantly, she is the co-founder and leader of the international HCA consortium, sometimes referred to as the 'Google Maps of the human body', together with Professor Aviv Regev, a former L'Oréal-UNESCO *For Women in Science* laureate. By generating cell atlases or 'reference maps' of all human cells using advanced computational analyses, including artificial intelligence, she aims to enable scientists to access the body at the molecular level and explore whole-organism physiology at unprecedented depth and breadth. The HCA consortium allows mapping of genetic variants, revealing how they may impact tissues and organs, and provides a blueprint for engineering tissues, as well as supporting drug discovery and development.

A major collaborative effort, the HCA now brings together more than 4,000 scientists worldwide, fostering interdisciplinary expertise and welcoming scientists from every continent into the consortium leadership. "Developing inclusive collaborations to address ground-breaking scientific questions is a guiding philosophy of this project," she says.

Lifelong curiosity inspires a new era in biology

At school in Germany, Professor Teichmann was inspired by her chemistry teacher, who offered her the opportunity to embark on her first award-winning science project, aged 14, exploring the biochemistry behind the changing colour of leaves throughout the seasons. This opened her eyes to the hidden world of invisible cells and molecules that form the basis of life, which still captures her imagination to this day.

During her molecular biology studies at Cambridge University in the UK, Professor Teichmann became fascinated by the opportunity to leverage data-driven approaches to understand major questions in biology. She subsequently carried out postdoctoral research in bioinformatics at University College London, and was inspired to pursue her current work upon discovering a paper in 'Nature Methods' describing the whole transcriptome of a single cell, the full set of RNA molecules produced by that cell, showing which genes are active at a given moment. "This was the beginning of a whole new era in biology," she says. "We could study the complete molecular identity of an individual cell, one cell at a time."
Going forwards, the ability to explore tissues in three dimensions will provide further insights into the function of organs, while data-driven modelling of drugs could deliver more personalised therapeutic strategies.

Creating a brighter future for women scientists

The beginning of her own career in computational biology was by no means easy. She learnt to cope with pressure, investing significant energy into continuing to drive science and discovery forwards in her group during the period when her two daughters were born. As a result, she is committed to mentoring students and advocating for practical support that helps to sustain people's wellbeing, while allowing research momentum to continue.

"I am committed to developing future scientists and advocating for women in science," she says. "I want the system to work better for everyone. I am cautiously optimistic that we will see more equality of opportunities over the next decades."

Her advice to future female scientists is to cultivate self-belief, be determined, hard-working and focused on goals with a healthy dose of pragmatism. "Research is about having fun and being creative," she concludes. "It's a marathon rather than a sprint. Follow your heart, work with inspiring, supportive people, and ensure your institution's values match your own. Being passionate and tenacious will help you pursue your dreams."

> *"I am committed to developing future scientists and advocating for women in science. I want the system to work better for everyone. I am cautiously optimistic that we will see more equality of opportunities over the next decades."*

Professor Raquel Lia Chan

AGRICULTURAL BIOTECHNOLOGY

Superior Researcher at CONICET, Professor at the National University of Litoral (UNL), Director of the Litoral Agrobiotechnology Institute (CONICET-UNL), Argentina

Leveraging plant biology to create climate resilient crops

Professor Raquel Lia Chan is rewarded for her work to identify plant genes and biological mechanisms that can create lower carbon, more climate resilient crops. This is a vital discovery as farmers strive to meet the rising demand for food amid challenging conditions. In particular, our current food system is highly vulnerable to the changing climate, while the food and agriculture sector accounts for more than a third of global greenhouse gas emissions[1]. By identifying several genes and biological mechanisms that enable crops to withstand water scarcity, high temperatures, and extreme weather events such as flooding and drought, her work has the potential to strengthen food security and help nourish a growing global population. In particular, she has focused on drought-tolerant wheat, maize, rice and soybean varieties. She is also a visionary leader and devoted mentor who is committed to training a future generation of plant scientists.

"Plants are unique and fascinating," says Professor Chan. "They are wonderful living beings that directly or indirectly provide us with all our food and replenish the oxygen we use. Studying how they work and perceive signals from the environment is fascinating."

"My team and I have identified specific genes that make certain plants more resilient," she explains. "We are using this knowledge to protect more vulnerable crops. In particular, we have devoted our work to helping plants deal with water deficit, flooding, cold, water-logging, high temperatures, and other environmental stressors."

"Leveraging knowledge and technology, we have developed biotechnological strategies to develop improved plants capable of producing more biomass and seeds, using less water, reducing their carbon footprint and delivering more yield. Ultimately, my dream is that no child should go without a plate of food."

Among her achievements, Professor Chan and her team have developed a technique based on the knowledge acquired to produce more seeds and fruits in smallholder farming. Importantly, she is helping to make this information freely

[1] Source: https://www.fao.org/newsroom/detail/Food-systems-account-for-more-than-one-third-of-global-greenhouse-gas-emissions/en

accessible to farmers through explanatory videos in Spanish and English, thereby 'democratising' her pioneering discoveries.

"My work combines the roles of an haute cuisine chef, a specialist gardener, and a writer," she says. "Cooking, taking care of plants and writing and communicating are truly important parts of my role as a researcher."

From childhood curiosity to world-leading plant research

Professor Chan has long demonstrated a strong intellectual curiosity, particularly in understanding the fundamental mechanisms of life. As a child, she noticed that when someone forgot to water the plants, some would wither away super quickly, while others barely seemed to react. "This simple observation sparked my career," she explains. It was the start of a lifelong quest to unlock the secrets of botanical endurance. "Why do some plants thrive in a drought while others perish in a few days? My work was dedicated to answering this question."

She was always encouraged by her parents, who taught her that anything can be accomplished with hard work. After school, where she enjoyed literature and science, she knew that she would become a scientist and researcher, and decided to study biochemistry in Israel, before completing her post-doctoral studies in France. She is particularly grateful to her mentor, Dr Néstor Carrillo, who she describes as an older brother. "He always believed in me, was patient when I made mistakes and encouraged me to do my best."

Professor Chan completed all her research in Argentina, despite funding challenges and a lack of support and recognition for scientists, collaborating with researchers in Chile, France, Germany and the United States. Within her current laboratory, she also nurtures the talents of up and coming scientists, inspiring them to use their newly acquired knowledge for a wide variety of purposes.

Optimism for women in science

Professor Chan feels that gender equality in the scientific realm is improving in her country, yet notes that there are still too few women progressing to leadership positions.

"These advances are closely linked to the evolution of society," she says. "We have seen some important changes over the last few decades and I am optimistic that in another 15 to 20 years, the situation will be more balanced if we continue on the right path," she explains. "I remain concerned for countries where women are further away from this fundamental transition."

She also recognises that raising children while pursuing leading scientific research is a considerable challenge. "Choosing to excel in both elements involved conscious sacrifices, from personal leisure time to social opportunities and professional travel," she says. "It was an arduous season of life, but seeing my sons grow into healthy, independent adults made the journey worthwhile." She holds no regrets. "Being a mother and a scientist was my choice, and I am proud to have seen it through."

"As scientists, we stand on the shoulders of giants," she says. "Science is a collective endeavour, a mosaic of universal knowledge built by thousands of hands, transforming human life silently. While children today may grow up viewing smartphones and aeroplanes as natural fixtures of the world, these are the fruits of relentless innovation."

"I would like everyone to understand that science is constantly present in our daily lives," she concludes. "From the crops on our tables to the technology in our pockets, science reshapes our present and secures our future. This understanding will lead to greater support for solving challenges related to health, food and technology and creating solutions that make people's lives easier."

To future generations of women scientists, she says: "If you want to devote your life to science, don't give up. You will thrive doing work that feels like a way of life."

> *"Ultimately, my dream is that no child should go without a plate of food."*

Professor Gordana Vunjak-Novakovic

BIOENGINEERING

University Professor, Mikati Foundation Professor of Biomedical Engineering at Columbia University, United States of America

Building human tissues, advancing human health

University Professor Gordana Vunjak-Novakovic is awarded for her pioneering work in human tissue engineering. Her technologies for growing patient-tailored bone grafts and bioengineering human lungs for life-saving transplantation are advancing regenerative medicine. The 'organs-on-chips' her lab has developed capture the complexities of human diseases, such as cardiomyopathies and cancer metastasis. Her creation of biological substitutes to repair, maintain or improve tissue function has been instrumental in maintaining healthy organs and improving quality of life. Professor Vunjak-Novakovic's approach mirrors the body's own mechanisms in producing cells and complex communication between different cells and their environment, allowing tissues to form and assemble into organs.

At the *Laboratory for Stem Cells and Tissue Engineering* at Columbia University, Professor Vunjak-Novakovic develops technologies to grow human tissues in the laboratory to repair the body, from healing broken bones to damaged lungs, liver and hearts. For example, a small cluster of cells can be induced to form a beating heart within over just a few weeks. Her work comprises stem cells (capable to build tissue), scaffold material (designed to mimic the body's natural environment and guide tissue formation) and a culture system - bioreactor, providing the nutrients, oxygen and signals for cells to assemble into tissues.

"I often describe our work as a body shop for treating injured or diseased organs, helping people to live longer and healthier lives," she says. "Our vision is to grow biological replacements for human tissues by "instructing" cells how to form functional, patient-matched tissues. Ultimately, this work will provide effective personalized treatments."

An equally important goal is to develop manufacturing methods that make these therapies accessible and affordable. Her ultimate goal is to create universal stem cells that could be stored and used for regenerating vital organs such as the liver. These cells could lead to tissues that can evade the immune system and therefore do not require immunosuppressive drugs, which are challenging for organ transplant patients to tolerate. Achieving this ambition would transform regenerative medicine.

Her lab also creates very small human tissues, only millimeters in size, on a micro-engineered platform, connected through a vascular system (blood-vessel-like channels). These systems are known as 'organs-on-chips' as they recreate key organ functions. This allows Professor Vunjak-Novakovic to study injuries such as heart attack and systemic diseases, in a way specific to biological sex, age, ethnic background and overall state of health. A rapidly evolving field, organs-on-chips are helping to advance precision medicine and translate engineered human tissues into clinical practice.

Uncovering a passion for biomedical research

Professor Vunjak-Novakovic has always been driven by a deep intellectual curiosity about the natural world. As a child, she was inspired by Leonardo da Vinci whose genius spanned art, engineering and medicine. The moon landing in 1969 also proved to be an 'unforgettable moment', later inspiring her to design an experiment on engineered cartilage that was carried out on the Mir space station. "This experience taught me that working with limited resources, something unavoidable in space, can spark remarkable creativity," she says.

After graduating in chemical engineering, she became a faculty member at her home university in Belgrade, and started a family. Yet she still felt that something was missing, and began searching for a way to combine her passions - engineering and medicine.

Her journey brought her to the Massachusetts Institute of Technology as a *Fulbright Fellow*. There she met her mentor Robert Langer, who introduced her to the concept of tissue engineering, which changed everything. She advanced the idea of generating tissues in laboratory by culturing cell–polymer constructs in bioreactors (living cells grown on supportive materials inside controlled laboratory systems). This idea marked the beginning of a 30 years of fruitful pioneering research. Finally, she had found her calling, recognising how biomedical engineering can offer a path to benefiting patients and society.

Her 'Eureka' moment occurred when she began culturing cardiac cells on a polymer scaffold under a microscope. "Suddenly, the cells connected with each other and with the scaffold and started beating in synchrony; it was astonishing," she says. "At that moment, I learnt that cells are highly capable. If you provide them with the right initial cues, they know how to further organise themselves."

In her role as University Professor at Columbia (as the first ever engineer to get this distinction), she collaborates with researchers across the United States of America and around the world, including in Canada, Italy, Israel, and Serbia. These collaborations offer opportunities to talented young scientists to take part in her research and benefit from studying in her laboratory. Mentoring these rising stars has become a highly meaningful aspect of her career. "The diversity of their perspectives continually drives our work forward," she says.

Empowering women to make positive choices

The challenge to empower more female scientists to reach leadership roles remains real, Professor Vunjak-Novakovic believes. She seeks to lead by example, demonstrating that women do not have to choose between a career and family, and inspiring the next generation of women in science. Beyond this, she believes in supporting women by creating opportunities through networks, awards and leadership roles, and providing flexibility to help them start and support their families.

"My professional life made me a better wife and mother, and now grandmother," she says. "At the same time, my family makes me a better scientist. Similarly, my students are a great source of inspiration and pride. I am proud that many of my former trainees now hold leadership positions in academia, industry and publishing, while also leading fulfilling life."

To aspiring women scientists, she has advice gained from her own mentors, whose generosity and support shaped her career: "Aim high, follow your dreams and never give up."

> *"I often describe our work as a body shop for treating injured or diseased organs, helping people to live longer and healthier lives."*

ABOUT THE

Fondation L'Oréal

The Fondation L'Oréal supports and empowers women to shape their future and make a difference in society. It focuses its action on two main areas: science and inclusive beauty.

Science: encouraging women's scientific excellence and inspiring future generations.

The Fondation L'Oréal is committed to supporting women scientists at every stage of their careers, from sparking vocations at a young age to recognizing excellence in established researchers. This commitment translates into an intergenerational approach and dedicated programmes.

In partnership with UNESCO, Fondation L'Oréal has run the *For Women in Science* programme since 1998. This programme aims to accelerate the careers of women scientists, remove the obstacles they face, and inspire younger generations to embrace scientific careers. To date, the programme has supported more than 5,000 researchers from over 140 countries, promoting scientific excellence and encouraging many young women to pursue scientific studies.

The Fondation L'Oréal, together with UNESCO, also invests in the future of women in science through the *For Girls in Science* programme. This programme aims to inspire scientific vocations in young girls by raising their awareness of the scientific challenges of tomorrow and introducing them to inspiring female role models. The goal is to support and encourage the next generation of female scientists, giving them the keys to succeed in scientific fields.

Inclusive Beauty: restoring self-esteem and promoting professional integration.

Convinced that beauty contributes to the process of rebuilding lives, the Fondation L'Oréal helps vulnerable women to improve their self-esteem through free beauty and wellness treatments. These treatments help restore their self-esteem and help them regain confidence. At the same time, the Fondation L'Oréal promotes the professional integration of vulnerable women through excellent training in beauty professions. Since the programme's founding in 2007, more than 190,000 women have benefitted from socio-aesthetics treatments, and more than 96,000 women have participated in the trainings.

ABOUT

UNESCO

With 194 Member States, the United Nations Educational, Scientific and Cultural Organization contributes to peace and security by leading multilateral cooperation on education, science, culture, communication and information.

Headquartered in Paris, UNESCO has offices in 54 countries and employs over 2,300 people.

UNESCO oversees more than 2,000 World Heritage sites, Biosphere Reserves and Global Geoparks; networks of Creative, Learning, Inclusive and Sustainable Cities; and over 13,000 associated schools, university chairs, training and research institutions, with a global network of 200 National Commissions.

Its Director-General is Khaled El-Enany.

"Since wars begin in the minds of men, it is in the minds of men that the defenses of peace must be constructed" – UNESCO Constitution, 1945.

More information: www.unesco.org

All media resources for the
L'Oréal-UNESCO *For Women in Science* programme are available on
WWW.FONDATIONLOREAL.COM

Follow L'Oréal-UNESCO *For Women in Science* on

FONDATION L'ORÉAL

#FWIS2026 #FORWOMENINSCIENCE