



*Young Talents Awards*  
SUB-SAHARAN  
AFRICA

For Women  
in Science



THE WORDS FROM PAULINE AVENEL-LAM & LIDIA BRITO  
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*Message and  
key figures*

A WORD FROM  
PAULINE AVENEL-LAM



“

*We believe that the future of science in Sub-Saharan Africa will be driven by the recognition and support of women researchers. Through the L'Oréal-UNESCO For Women in Science Young Talents Award, we demonstrate the groundbreaking work of women scientists across the region, who are driving sustainable change and contributing to concrete solutions for Africa and for the world.*

Pauline Avenel-Lam  
Executive Director of Fondation L'Oréal

”

A WORD FROM  
LIDIA BRITO

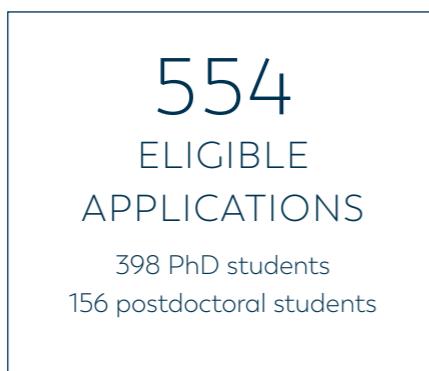


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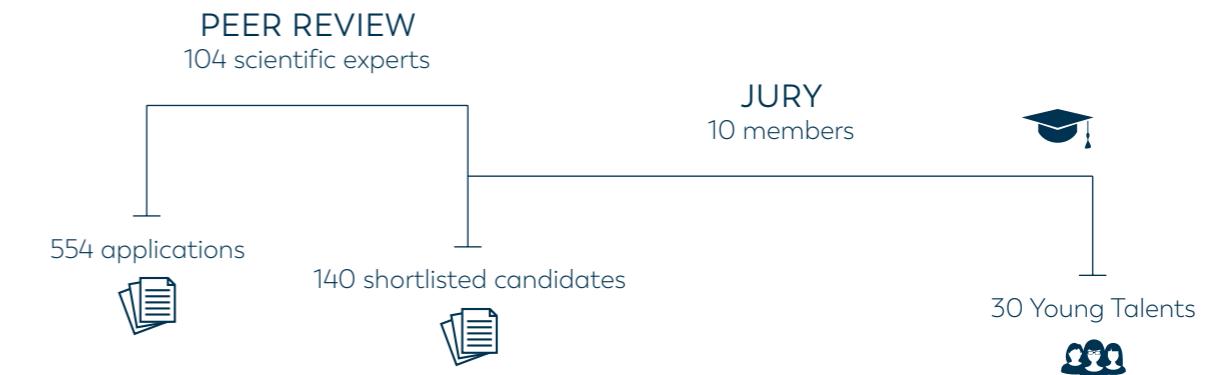
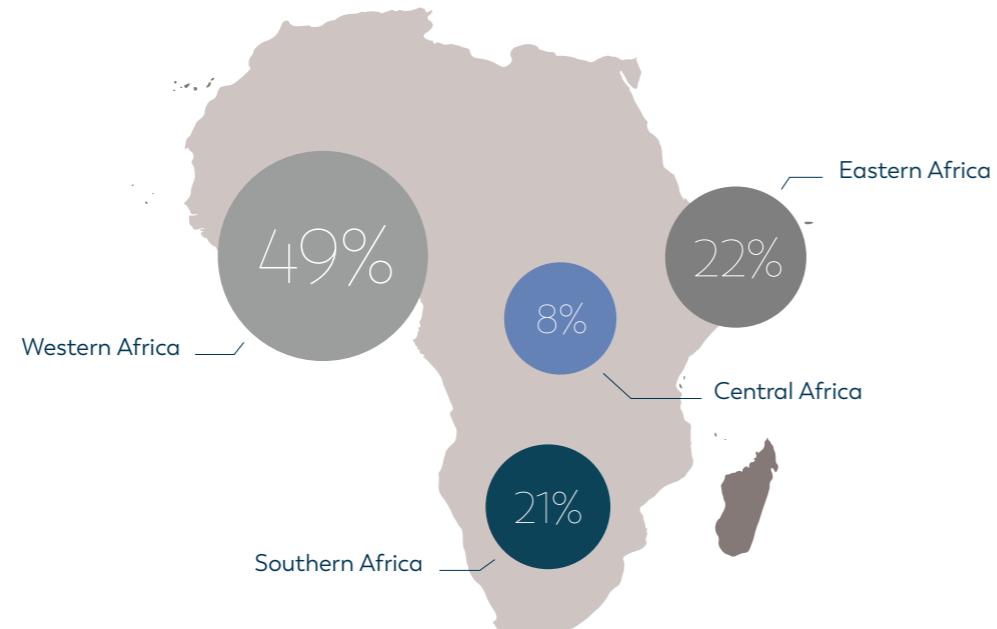
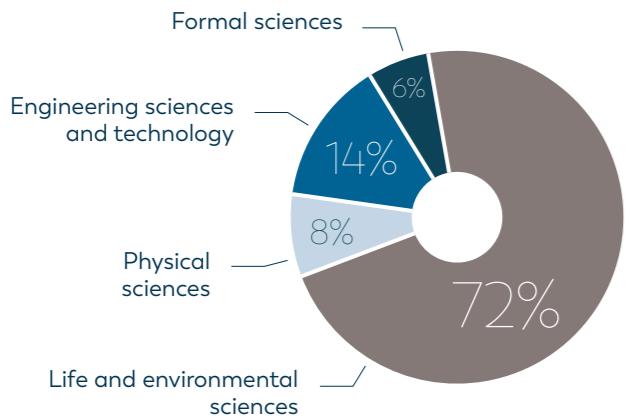
*UNESCO champions women researchers at the heart of Africa's scientific transformation. The L'Oréal-UNESCO Sub-Saharan Africa Young Talents Awards show how partnership can open doors, amplify voices, and accelerate impact. By celebrating these remarkable young researchers, we reaffirm our commitment to their success and to Africa's sustainable and equitable future.*

“

Lidia Brito  
Assistant Director-General for Natural Sciences, UNESCO



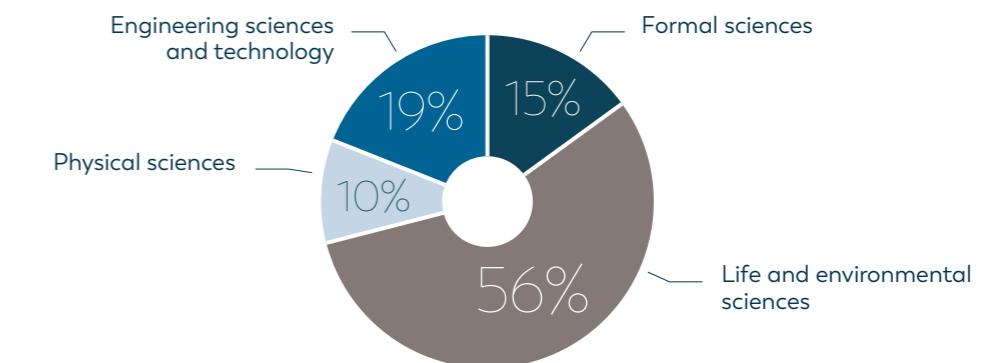
REPARTITION OF SCIENTIFIC DISCIPLINES  
AND LOCATIONS



Jury chaired by the  
**Professor Priscilla Baker**,  
Professor of Chemistry, University of the  
Western Cape, Cape Town, South Africa  
International Laureate L'Oréal-UNESCO  
For Women in Science 2025



REPARTITION OF SHORLISTED CANDIDATES  
BY SCIENTIFIC DISCIPLINES





*Southern  
Africa*

*Darlenne Kenga**Doctoral student in Public and Environmental Health*

“*Women in science prove every day that brilliance knows no gender.*”

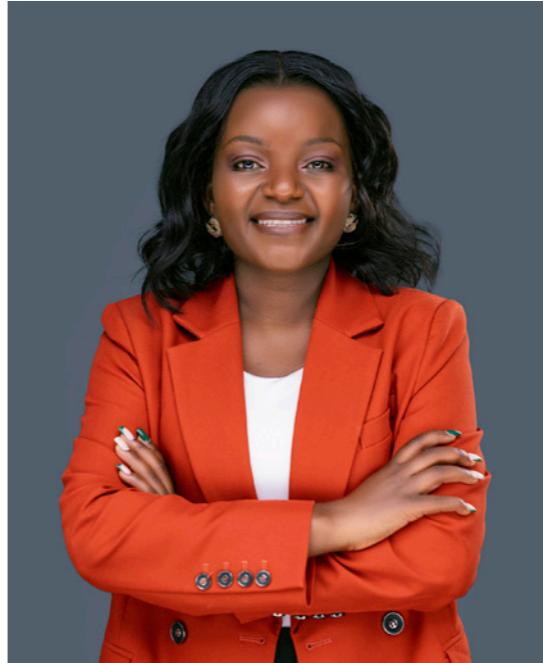
HEALTH SCIENCES, MICROBIOLOGY LABORATORY, FACULTY OF MEDICINE,  
EDUARDO MONDLANE UNIVERSITY, MAPUTO, MOZAMBIQUE

### *Empowering paediatric doctors in Mozambique to make better antibiotic decisions*

Darlenne Kenga is rewarded for her work to help pediatric doctors at Maputo Central Hospital make better informed decisions on prescribing antibiotics for children. By assessing the knowledge, attitudes and practices of local doctors, she aims to create a decision-support toolkit (or syndromic antibiogram) for doctors considering antibiotic prescriptions ahead of receiving patients' laboratory results.

With a lifelong aspiration to save children's lives, she initially dreamt of becoming a pediatrician. Encouraged by her university professors, she has since thrived as a researcher, and after discovering a lack of available information for doctors on bacteria in the bloodstream of HIV-infected children, she was inspired to bridge the gap between research and clinical practice.

For Darlenne, being a woman in science means achieving what once seemed intangible. It is about contributing to discovery, embracing resilience, and showing that scientific progress thrives on diversity. Her motivation to strive for greater achievements is partly inspired by her degree supervisor, a strong role model who has demonstrated the value of perseverance, integrity, and leadership in science.

*Effita Fifi Masoamphambe**Doctoral student in Global Health*

“*My greatest scientific dream is a world where global health equity is a reality. I hope that scientists will continue to develop affordable and accessible diagnostics and medicines that reach the most underserved communities.*”

MALAWI LIVERPOOL WELLCOME RESEARCH PROGRAMME, BLANTYRE  
& LIVERPOOL SCHOOL OF TROPICAL MEDICINE, UNITED KINGDOM

### *Better managing antibiotic resistance in Malawi hospitals*

Effita Fifi Masoamphambe is rewarded for her research exploring the viability of diverse methods for monitoring antibiotic use among hospital patients in Malawi. Her findings will help to create a more comprehensive, evidence-based view of the situation, helping to guide policy and efforts to strengthen antibiotic prescribing practices. Ultimately, this could improve the way antibiotic medicines are used, and contribute to better managing antibiotic resistance.

Her interest in pursuing a scientific career was sparked during an undergraduate research internship at the University of Malawi's Microbiology Laboratory. This experience was a defining moment that deepened her curiosity and passion for understanding infectious diseases and conducting research on antimicrobial resistance.

Mentorship is vital for women in science, Effita believes, offering inspiration and direction to navigate career challenges. She has benefitted from the support of two excellent mentors, including her current supervisor, who continues to shape her growth as a researcher.

## Miranda Mpeta

Doctoral student in Chemical engineering



**“***I envision scientific solutions that integrate innovation with public needs, fostering equitable access to clean water, sustainable resources and informed governance for healthier, inclusive communities.***”**

ENGINEERING AND TECHNOLOGY, ENVIRONMENTAL ENGINEERING AND WATER UTILIZATION LABORATORY,  
UNIVERSITY OF PRETORIA, HATFIELD, SOUTH AFRICA

### *Cleaning gold waste with microorganisms to promote sustainable mining*

Miranda Mpeta is rewarded for her research to help promote sustainable gold mining by harnessing living organisms to extract gold and reduce toxic substances from mining waste. Using adapted microorganisms, her innovative process removes the gold, while safely neutralizing toxic cyanide, improving gold recovery efficiency, while lowering the impact on the environment.

She was inspired by her aunt's artisanal gold mining work, which introduced her to the both the prosperous nature of the mining industry and its environmental risks. Meeting a successful female chemical engineer at a career fair was a pivotal moment, prompting her to pursue engineering in order to develop sustainable mining solutions and advocate for women in science.

For Miranda, being a woman in science means driving innovation, challenging norms and inspiring others, all with a great determination and passion for discovery. To help more women scientists amplify their impact on society, she is pushing for policies that promote equal funding, mentorship for women and inclusive research environments.

## Keneuoe Cecilia Nthontho

Doctoral student in Human Genetics



**“***Science could find affordable, accessible cures for diseases such as cancer, and explain the complex interaction between genetics, the environment and human health.***”**

MEDICINE, UNIVERSITY OF BOTSWANA – UNIVERSITY OF PENNSYLVANIA  
JOINT MOLECULAR LABORATORY, GABORONE

### *Shining a light on genetic differences to improve breast cancer survival*

Keneuoe Cecilia Nthontho is rewarded for her work to investigate two genes that affect how breast cancer drugs are broken down and removed from the body. By studying these genes in samples from African breast cancer patients, she aims to understand whether genetic differences determine the effectiveness of different treatments, and ultimately, help improve patient survival rates.

She initially chose to study accounting, however, her father encouraged her to pursue medicine and apply to a healthcare training college. Now, she is determined to make a difference by improving the prospects of breast cancer patients.

Fortunately, Cecilia has not experienced a 'glass ceiling', as women represent the majority in her laboratory, and therefore benefit from every opportunity presented. Her colleagues have indeed been her greatest mentors, inspiring her to succeed by persevering on their own journeys.

## Kelebonye Ramolekwa

Doctoral student in Agricultural Agronomy and Biotechnology



**“***I want science to mitigate the global challenge of food security in the face of climate change, including by leveraging modern technological strategies to generate more resilient agricultural systems.* **”**

MOLECULAR BIOLOGY AND TISSUE CULTURE LABORATORY,  
BOTSWANA UNIVERSITY OF AGRICULTURE AND NATURAL RESOURCES, GABORONE

### Unlocking cowpea potential evaluating enhanced lines for yield and nutritional quality

Kelebonye Ramolekwa is rewarded for her research exploring pathways to high yielding cowpea varieties with enhanced nutritional value. Her work evaluates the agronomic potential and food-related biochemical profiles of genetically altered cowpea varieties derived from gamma irradiation. Investigating their performance could lead to their eventual release to farmers, helping to raise yields and improve livelihoods.

Her passion for agricultural science was sparked by witnessing the poor yields at her grandparents' farm caused by low yield potential varieties and unreliable, minimal rainfall. The situation prompted her to understand the importance of leveraging modern technology to develop crops with both high yield potential and strong resilience to climate change.

As a young woman in science, Kelebonye benefitted from the fundamental role played by her PhD supervisors, who offered consistent support and guidance and fostered the confidence needed to overcome major research challenges. Their unwavering belief and support have been instrumental in her academic achievements.

## Tamara Jose Sande

Doctoral student in Soil Science



**“***As a scientist, I am helping to provide sustainable solutions for global food security – developing climate-friendly technologies that restore soil health, increase crop productivity and reduce hunger.* **”**

AGRICULTURAL SCIENCE, DEPARTMENT OF SOIL AND GEOLOGICAL SCIENCES,  
SOKOINE UNIVERSITY OF AGRICULTURE, MOROGORO, UNITED REPUBLIC OF TANZANIA

### Improving nutrients for potato farming in Mozambique

Tamara Jose Sande is rewarded for her research to promote food security and improve smallholder farmer livelihoods in Mozambique by creating an effective, integrated approach to providing nutrients for Irish potato farming. Her solution combines inorganic fertilizer, vermicompost and bio-enriched rock phosphate to raise yields sustainably, improving tuber quality and promoting soil fertility, while reducing dependence on costly imported fertilizers.

Her research interest emerged while teaching soil science and plant nutrition at university. Inspired to better support her students and empower farmers, she resolved to deepen her knowledge and direct her journey toward developing innovative, science-based solutions for sustainable agriculture in Mozambique.

For Tamara, being a woman in science means encouraging young women to pursue research careers, while harnessing knowledge to drive sustainable development and societal transformation. The support of role models in her professional and personal life has been instrumental in shaping her path and motivating her to aim higher.

*Dineo Pono Sebuso**Doctoral student in Molecular and Chemical Physics: Collision, Interaction with Radiation*

**“***My contribution will help to create a clean, sustainable energy future and end dependence on fossil fuels.* **”**

PHYSICS (MATERIAL SCIENCE RESEARCH),  
BOTSWANA INTERNATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY, PALAPYE

*Innovating towards sensors to promote better air quality*

Dineo Pono Sebuso is awarded for her research to modify the material characteristics of the chemical compound nickel oxide using accelerated heavy ion beams to design gas sensors that detect hazardous and industrial gases. These sensors rely on changes in electrical properties for selectivity and sensitivity, and could be used to promote air quality monitoring, climate change mitigation and environmental protection.

She was encouraged by female science teachers at school, who inspired her to reach her full potential. Meanwhile, growing up in Botswana and witnessing the challenges of achieving clean water and a healthy environment, she developed a desire to contribute to solutions. This led her to pursue a Master's project on developing novel materials for environmental and water treatment applications.

For Dineo, being a woman in science means inspiring young women to pursue science by showing that determination, resilience and hard work have enabled her to overcome challenges and remain dedicated to her passion for discovery.

*Lakshmi Yaneesha Sujeeun**Doctoral student in Artificial Intelligence*

**“***I believe innovation should serve people first and reach the communities that need it most, particularly in Africa.* **”**

COMPUTER SCIENCE, CENTRE FOR BIOMEDICAL AND BIOMATERIALS RESEARCH,  
UNIVERSITY OF MAURITIUS, REDUIT

*Leveraging artificial intelligence to heal wounds faster*

Lakshmi Yaneesha Sujeeun is rewarded for her work to develop artificial intelligence models to design smart biomaterials that help wounds heal faster. By predicting the best designs before laboratory testing, she is reducing trial and error, saving resources, and helping to create affordable, effective solutions to expand access to healthcare and improve treatment for patients across Africa.

During her Master's degree, she combined laboratory work with computational modeling, exploring how different approaches reveal patterns and connections that may not be captured by a single method. This interdisciplinary experience reinforced her passion for science, showing her the power of integrating methods in understanding complex biological systems.

For Lakshmi, being a woman in science means proving that curiosity, talent and determination know no gender. She strives to contribute meaningful research, inspire young women to lead and innovate, and build networks to amplify their collective impact on Africa's scientific future.



*Central  
Africa*

## Claude Yasmine Hamany Djande

Post-doctoral researcher in Plant Science and Crop Protection



“*Science has the power to unlock the full potential of climate-resilient crops, revolutionizing agriculture and improving human health.*”

BIOCHEMISTRY, METABOLOMICS LABORATORY,  
UNIVERSITY OF JOHANNESBURG, SOUTH AFRICA

### *Exploring fungal disease in barley to develop more resilient crops*

Claude Yasmine Hamany Djande is rewarded for her research to investigate how climate change affects plant-pathogen interactions, focusing on barley and fungal diseases. By integrating plant chemistry, gene activity studies and computational modeling (using computers to simulate complex systems using mathematics and other sciences), she aims to predict disease outbreaks and help develop more resilient barley varieties, supporting more sustainable farming and helping to promote global food security.

Inspired by crime TV programs, young Claude wanted to solve mysteries. She has found the opportunity with agriculture, using scientific tools to explore plant disease. She is now committed to strengthening food systems and helping farmers to adapt to climate change.

For Claude, being a woman in science provides a powerful platform to inspire others and spark belief in their own potential and dreams, just as she benefitted from parents who empowered her to persevere. Balancing the challenges of intense research demands and family responsibilities have shaped her perspective, giving her the courage to pursue a meaningful, fulfilling career.

## Christelle Mbouteu

Doctoral student in Energy and Fuels



“*Through innovation and collaboration, science can create a fairer and healthier world for all, unlocking solutions to energy poverty and fighting climate change.*”

ENERGY ENGINEERING, DEPARTMENT OF PHYSICS,  
UNIVERSITY OF NAIROBI, KENYA

### *Expanding access to clean, affordable electricity in rural communities*

Christelle Mbouteu is rewarded for her work in designing and optimizing innovative hybrid renewable energy systems that combine solar, wind, and storage technologies. These systems aim to provide reliable, clean, and affordable electricity to rural communities and healthcare facilities, reducing dependence on fossil fuels and improving quality of life, while promoting sustainable development.

During her studies in energy engineering, she realized the power of renewable energy in transforming lives and resolved to combine technical innovation with real-world applications. She has since dedicated her career to developing innovative clean energy solutions for Africa that can be scaled and adapted across different regions of the world. Among these solutions, hybrid renewable systems that integrate an energy carrier such as hydrogen ensuring reliable power, increasing overall efficiency, potentially lowering long-term electricity costs, and reducing carbon emissions, while serving as a clean fuel for transport and industry.

For Christelle, being a woman in science is both an honor and a responsibility. It means contributing to knowledge, creating impactful solutions, and encouraging other women to pursue scientific careers. She wants her journey to inspire girls and women to follow their passion for science.

## Ramal Cyrielle Ndougonna

Post-doctoral researcher in *Phytopathology*



**“**  
*Science permeates every aspect of our lives and can provide solutions to the challenges faced by vulnerable populations living in low-income countries. I want to help achieve food security in Sub-Saharan Africa.*  
**”**

VIROLOGY LABORATORY, CENTRAL AND WEST AFRICAN VIRUS EPIDEMIOLOGY PROGRAMME  
FOR FOOD SECURITY, ABIDJAN, IVORY COAST

### ***Harnessing cassava diversity to promote food security***

Ramal Cyrielle Ndougonna is rewarded for her research leveraging genomic data to help identify disease-resistant, high-yielding cassava varieties with improved drought tolerance and nutritional value. Cassava is a staple crop for millions of people in Sub-Saharan Africa, and therefore her work could help to promote food security on the continent, while meeting the demand for affordable, nutritious food.

Growing up in Chad, she witnessed food poverty and insecurity first hand, particularly in the face of climate change. Determined to harness science to address these challenges, she is using cutting-edge sequencing technologies and bioinformatics to generate resources for the cassava breeding community.

Cyrielle's mother is a microbiologist and was her first role model. She remembers visiting her laboratory as a child and thinking that she too would become a scientist when she grew up. Her mother has always been supportive of her career choices, and to this day, Cyrielle still draws from her experience.

## Onella Mundi Nnandi Noukou

Doctoral student in *Biodiversity Preservation*



**“**  
*I wish for a world in which conservation is a shared way of life, sustaining biodiversity and empowering communities worldwide.*  
**”**

BIOLOGICAL SCIENCES, LABORATORY OF APPLIED BIOLOGY AND ECOLOGY,  
FACULTY OF SCIENCE UNIVERSITY OF DSCHANG, CAMEROON

### ***Promoting forest restoration by conserving an endangered bird***

Onella Mundi Nnandi Noukou is rewarded for her research to help regenerate Cameroon's Ebo forest by protecting the globally endangered yellow-casqued hornbill. This bird plays a vital role in dispersing seeds, encouraging trees and plants to grow. By combining local knowledge with scientific surveys, she is generating the first available data to help shape effective conservation planning and strategies for effective, long-term forest management, in order to secure biodiversity and strengthen local livelihoods.

Inspired by her deep love for the forest and the fear of losing it, she was drawn to science as a means to help conserve wildlife and the natural world. Realizing that the yellow-casqued hornbill was disappearing gave her a clear purpose - to protect the bird and its forest home for future generations.

For Onella, being a woman in science means and contributing solutions that protect nature for a more sustainable and inclusive future. She aims to help amplify underrepresented voices, showing that knowledge has no gender, and paving the way for other young women scientists to succeed.

# Nelly Manuela Tchatchoua Tatchou

Doctoral student in Molecular Biology



*“I envision a future where science plays a central role in eradicating malaria in Africa through a comprehensive approach, incorporating innovative vector control methods and understanding the influence of climate change on malaria transmission dynamics.”*

BIOLOGICAL SCIENCES, WONDJI RESEARCH UNIT,  
CENTRE FOR RESEARCH IN INFECTIOUS DISEASES, YAOUNDÉ, CAMEROON

## *Towards eliminating malaria by fighting insecticide resistance*

Nelly Manuela Tchatchoua Tatchou is rewarded for her research to improve our understanding of insecticide resistance in malaria vectors. Some 95% of malaria deaths occur in Africa,<sup>1</sup> with the majority children under 5. By investigating resistance at a molecular level, she aims to help pave the way for the creation of effective vector control methods and molecular diagnostic tools for detecting and monitoring resistance.

With a love for biology and living in a region vulnerable to mosquitoes, she observed the inefficacy of insecticide sprays as a school pupil. Nelly's research could help to optimize the way we manage insecticide resistance, fostering informed decision-making and the implementation of tailored vector control strategies.

As a woman scientist, Nelly believes she has an opportunity to provide valuable and enriching perspectives within the scientific community. She is navigating her career with commitment and resilience, benefitting from mentorship while improving her technical and communications skills. She wants to help establish a strong foundation for upcoming women in science.

<sup>1</sup> Source: World Health Organization.



*East  
Africa*

## Maurine Chepkoech

Doctoral student in Telecommunications



*“My ambition is to harness advanced telecommunications to democratize access to expertise and services, ensuring that geography no longer determines who can learn, heal, or innovate.”*

ELECTRICAL AND ELECTRONIC ENGINEERING,  
COMMUNICATIONS RESEARCH GROUP AND TELEMEDICINE AND CONNECTED CARE GROUP,  
UNIVERSITY OF CAPE TOWN, SOUTH AFRICA

### Connecting expert surgeons with junior doctors in remote regions

Maurine Chepkoech is recognised for her research to connect expert surgeons with junior doctors in remote areas of Africa using dedicated 5G and 'beyond mobile' networks and satellites. Her novel solution allows experienced surgeons to guide operations in real time from thousands of kilometers away, expanding access to world-class surgical training in underserved regions.

Growing up in rural Kenya, her life changed when her mathematics teacher recognized her strong performance in science and mathematics and advised her to become an engineer, unlocking a world of possibilities.

For Maurine, being a woman in science means responsibility beyond research – creating pathways for others to follow. She herself has overcome 'imposter syndrome' by building a support network and learning to recognize that her unique perspective adds value, even in intimidating situations. She is striving to help lead inclusive innovation, with a strong ambition to inspire young girls to solve global challenges through science.

## Fana Gebremichael

Doctoral student in Energy Science and Technology



*“I’m striving to help develop environmentally sustainable and affordable renewable energy solutions for rural Africa.”*

FACULTY OF SCIENCE, EDUARDO MONDLANE UNIVERSITY,  
MAPUTO, MOZAMBIQUE

### Turning Coconuts into Clean Fuel – With Zero Waste

Fana Gebremichael is rewarded for her work to optimize the production of biodiesel from coconut oil in Mozambique, transforming agricultural waste into a valuable catalytic material for sustainable fuel. In particular, her research harnesses ash derived from coconut husks as a catalyst to create fuel, while using glycerol purification to enhance its usability.

She became fascinated by renewable energy technologies during her chemical engineering studies, and is committed to advancing sustainable biofuels to preserve the environment and prevent climate change. In Mozambique, coconuts are grown commercially and therefore husks are readily available, presenting an untapped and affordable catalyst for producing biofuel. Fana's technology could present a viable solution to fossil fuels and help promote clean energy.

Resilient leadership is important for women scientists, Fana believes. This is particularly important given barriers such as limited opportunities for women to connect with influential networks or advance their careers. Despite these challenges, she continues to push forward by remaining persistent and finding supportive mentors.

## Afrah Khairallah

Post-doctoral researcher in Bioinformatics



“  
*My aspiration is to help find a cure for HIV and improve health across Africa by collaborating internationally to bring us closer to ending endemic diseases.*  
”

COMPUTER SCIENCE, BASIC AND TRANSLATIONAL SCIENCE DEPARTMENT,  
AFRICA HEALTH RESEARCH INSTITUTE, KWAZULU-NATAL, SOUTH AFRICA

### *Exploring pathways to future HIV vaccines and treatments*

Afrah Khairallah is rewarded for her work to research a rare group of people living with HIV who naturally develop antibodies able to fight many different strains of the virus. By combining biological research with computer-based tools, she aims to uncover clues that could guide the design of future HIV vaccines and treatments.

Growing up Sudan, she often saw people fall ill or die from diseases such as malaria, HIV and tuberculosis, without access to adequate health care. This left her feeling helpless, yet it also prompted a deep curiosity and determination to understand disease mechanisms and find solutions. Studying bioinformatics and later focusing on HIV research gave her a concrete path to address these challenges.

She overcame cultural expectations by seeking scholarships and research opportunities and drawing strength from supportive mentors, who have unlocked doors to greater achievements. As a woman in science, she feels both a responsibility and a privilege to contribute to scientific knowledge, while showing other women that they too belong in science and can shape its future.

## Seble Kebede

Doctoral student in Environmental Engineering



“  
*I hope that science will solve the challenges of disease and pollution, improving daily life, driving innovation and empowering communities.*  
”

ENVIRONMENTAL ENGINEERING DEPARTMENT,  
ADISS ABABA SCIENCE AND TECHNOLOGY UNIVERSITY, ETHIOPIA

### *Improving indoor air quality for vulnerable communities in Ethiopia*

Seble Kebede is rewarded for her research to model and analyze the air pollution and human health risks associated with the indoor burning of incense and traditional medicinal fumigants in Ethiopia. By identifying the pollutants emitted and providing evidence of the risk of exposure, she will help to inform safer cultural practices, promote better indoor air quality and contribute to innovative sustainability solutions to protect vulnerable community groups.

Her interest in science emerged from her curiosity to understand the natural world and human-made phenomena. Growing up in a culture rich with incense, coffee ceremonies and fumigation practices, she was driven to explore the chemical nature of these aromas and their impacts, particularly on women, children and the elderly.

Seble strives to inspire future women scientists by proving that passion and determination matter more than limitations. For her, women with knowledge make undeniable contributions to innovation, advance discoveries, transform research into real-world solutions, and empower communities to tackle poverty and create meaningful, lasting change.

*Tigist Addisu**Doctoral student in Soil Science*

“*Science stands to develop sustainable solutions that restore degraded ecosystems and help ensure global food security.*”

EARTH SCIENCES, SOIL, WATER AND PLANT RESEARCH LABORATORY, ASSOSA AGRICULTURAL RESEARCH CENTRE,  
ETHIOPIAN INSTITUTION OF AGRICULTURAL RESEARCH, ADDIS ABABA, ETHIOPIA

### *Promoting soil health to help farmers in Ethiopia raise yields and build resilience*

Tigist Addisu is rewarded for her agricultural research on soil fertility, acidity management, carbon sequestration and climate-resilient agricultural practices. Her work stands to promote sustainable farming techniques in Ethiopia and beyond, helping to promote soil fertility, improve soil health, and raise crop productivity, while supporting farmers in building resilience to climate change.

Her interest in science deepened during her undergraduate studies, when she first witnessed how soil degradation affected farmers and their ability to create sufficient, high quality yields. This experience inspired her to pursue research focused on developing practical solutions to promote sustainable agriculture and improve rural livelihoods.

For Tigist, being a woman in science represents empowerment, resilience and the responsibility to inspire future generations of girls to pursue scientific careers, while creating positive change in society. She has built a supportive network of peers and mentors whose encouragement has motivated her to overcome obstacles and achieve her scientific goals with confidence and determination.

*Cesilia Mambile**Doctoral student in Artificial Intelligence*

“*My childhood experiences inspired me to leverage science to protect both people and nature. I dream of a future free of forest fire disasters.*”

INFORMATION AND COMMUNICATION SCIENCE AND ENGINEERING,  
THE NELSON MANDELA AFRICAN INSTITUTION OF SCIENCE AND TECHNOLOGY,  
THE UNIVERSITY OF DODOMA, UNITED REPUBLIC OF TANZANIA

### *Predicting forest fires in United Republic of Tanzania*

Cesilia Mambile is awarded for her work to help build greater climate resilience in Tanzania and beyond by creating deep learning models to predict forest fires around Mount Kilimanjaro. This research supports early warning systems, helping forest rangers and decision-makers to act rapidly in the event of a disaster. Her aim is to transform this research into artificial intelligence-powered solutions to promote climate action in Africa.

Growing up in her native Tanzania, she witnessed firsthand the effects of drought, deforestation and forest fires. Now, as an enterprising scientist, her dedicated AI-driven solution, FirePredict, integrates satellite imagery, weather data and information on human activities to estimate when and where a forest fire might occur. Once complete, it will give communities early life-saving alerts, helping to prevent the destruction of lives, farms, animals and entire ecosystems.

Beyond applying her knowledge to solve real-world challenges, she feels a responsibility to inspire young African girls to believe that they too have a place in science. In particular, she mentors girls in Tanzania and neighboring countries, encouraging them to build their interest and skills in science, technology, engineering and mathematics subjects.

## Margaret Murage

Doctoral student in Oncology



**“**  
*My vision is for Africa to become an early adopter of advanced cancer therapies, making life-saving treatments accessible and affordable for everyone.*  
**”**

DEPARTMENT OF BIOCHEMISTRY,  
 UNIVERSITY OF NAIROBI, KENYA

### *Developing novel, safer treatments for cancer*

Margaret Murage is rewarded for her work to develop novel treatments for cancer and antimicrobial resistance. In particular, she is using porphyrin-based photosensitizers for photodynamic therapy and photodynamic antimicrobial chemotherapy. These therapies offer a less toxic alternative to conventional treatments, and hold great potential to improve healthcare in Africa, particularly in remote, rural regions.

With a longstanding passion for science and curiosity for the world around us, she initially studied biochemistry. However, observing firsthand the struggles of family and friends experiencing the severe side effects of cancer treatments, she was inspired to identify safer, less invasive solutions, such as photodynamic therapy.

Margaret has fought to break the glass ceiling by mentoring young women and advocating for gender equal representation in science. The unwavering support of her own mentors and participating in women's fellowships has provided a deep source of courage and inspiration to pursue her career.

## Rehema Mwawado

Doctoral student in Artificial Intelligence



**“**  
*Technological innovation in agriculture should be fully democratized - made simple, affordable and accessible to smallholder farmers, including those in developing countries.*  
**”**

COMPUTER SCIENCE, AFRICAN CENTER OF EXCELLENCE IN INTERNET OF THINGS,  
 UNIVERSITY OF RWANDA, KIGALI

### *Using artificial intelligence to promote precision agriculture*

Rehema Mwawado is rewarded for her research to harness machine learning (whereby computers recognize patterns in data to make predictions or suggestions) to promote precision agriculture and conserve natural resources. By integrating soil, weather and crop data on devices such as smartphones, she develops adaptive models enabling farmers to make scalable, efficient and site-specific decisions on when and where to apply appropriate quantities of agricultural inputs.

Her passion for science was sparked in secondary school during Tanzania's rapid growth in mobile and satellite TV technology. Fascinated by the dish antenna, she fixed scrambled channels and became eager to understand the technology behind telecommunications. Ultimately, her curiosity led her to specialize in embedded computing systems.

Rehema perceives that being a woman in science means balancing research with care-giving, often sacrificing family time while striving for success in a technologically advanced field. It means persevering, setting an example and helping to create a future where women are viewed solely in terms of their potential.

## Sarah Nawoya

Doctoral student in Artificial Intelligence



**“**  
*We have the opportunity to improve farmer livelihoods by bringing the positive impact of artificial intelligence to rural areas.*  
**”**

ELECTRICAL ENGINEERING, SCHOOL OF ENGINEERING,  
 MAKERERE UNIVERSITY, KAMPALA, UGANDA

### Promoting sustainable insect farming with artificial intelligence

Sarah Nawoya is rewarded for her work to develop a low-cost smart device to inform the selective breeding of black soldier flies, which can be farmed as a more sustainable source of protein for animal feed. This innovation provides a fast, non-invasive and accurate method of identifying and measuring individual characteristics (phenotypes), enhancing the quality and sustainability of insects bred for food and feed.

As a child, she had a natural curiosity to understand how things work. Her interest in every day phenomena grew into exploring how computers solve real problems, leading her to develop low-cost artificial intelligence solutions to explore insect phenotyping, and ultimately help promote food security.

For Sarah, having a strong support system and cultivating an ability to celebrate every small success has enabled her to stay focused and build momentum. The female faculty members in her department have been a significant source of inspiration and excellent role models as women leaders in science.

## Godiana Hagile Philipo

Post-doctoral student in Artificial Intelligence



**“**  
*My purpose is to establish a large, interdisciplinary research center integrating fundamental research, innovation and manufacturing, where socially beneficial ideas flow seamlessly from concept to solution.*  
**”**

COMPUTER SCIENCE, CLEAN ENERGY TECHNOLOGY AND SMART GRID LABORATORY,  
 THE NELSON MANDELA AFRICAN INSTITUTION OF SCIENCE AND TECHNOLOGY,  
 ARUSHA, UNITED REPUBLIC OF TANZANIA

### Harnessing artificial intelligence to better manage energy use

Godiana Hagile Philipo is rewarded for her work to introduce an artificial intelligence-powered smart energy management system enabling electricity customers to better control their energy use. The system's chief innovation is its capacity to monitor specific appliances, while also ensuring that lighting and heating can be adjusted to ensure optimum comfort. This flexible approach stands to deliver cost savings in a variety of settings.

With a strong belief in the power of science to create robust solutions, Godiana was inspired to pursue her research when collaborating with Tanzania's principal energy supplier. Her novel, user-centric model empowers end users (customers) to save electricity, and could be used in residential, commercial and institutional buildings as part of a sustainable energy future.

During her PhD abroad, Godiana had two young children, which demanded efficient time management, a creative balancing of responsibilities and unwavering determination. She achieved her ambitions through strong family support, disciplined planning and dedication to her research.



*West  
Africa*

## Maame Ekua Acquah

Doctoral student in Molecular Cell Biology of Infectious Disease



**“**  
*My scientific aspiration is to see research capacity strengthened equitably across nations so we can fully leverage our diversity and unique cultural approaches to better understand and eliminate infectious diseases.*  
**”**

BIOLOGICAL SCIENCES, MOSI RESEARCH GROUP,  
 WEST AFRICAN CENTRE FOR CELL BIOLOGY OF INFECTIOUS PATHOGENS,  
 UNIVERSITY OF GHANA, ACCRA

### Unlocking Pandemic Prevention

Maame Ekua Acquah is rewarded for her work to understand the role of human genes in the evolution of the Covid-19 virus. In this way, she seeks to demonstrate that pathogens do not act alone to cause disease. Her findings could help to shine a light on the relationship between these pathogens and humans, and ultimately provide insights into how we can better prevent or protect ourselves from future pandemics.

Her interest in science has always been driven by her curiosity to learn and discover new things. At secondary school, her biology teacher encouraged her to share her favorite topics with her classmates, further strengthening her fascination.

For Maame, being a woman in science means that she is on a 'stage of possibilities'. She is leveraging passion, perseverance and creativity to advance her journey, showing women everywhere that being authentic can lead to professional success. She is also keen to make complex science accessible and engaging for everyone using art.

## Oluwatosin Ajayi

Doctoral student in Fisheries



**“**  
*I aspire to see science finding lasting solutions to food insecurity and climate change. In this way, we could transform millions of lives and build a healthier, more sustainable future.*  
**”**

AGRICULTURAL SCIENCE, GENETICS AND BIOTECHNOLOGY LABORATORY,  
 DEPARTMENT OF FISHERIES AND AQUACULTURE TECHNOLOGY,  
 FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE, NIGERIA

### Empowering women fish farmers by breeding healthier fish

Oluwatosin Ajayi is rewarded for her work to improve health in fish, in order to help women farmers in expanding their stocks, while saving costs. In particular, she is researching ways to make African mud catfish grow more rapidly, stay healthier and resist disease. This could include raising them with cheaper feeds formulated with locally sourced plant materials such as plantain peels and ginger. In addition to improving farmer livelihoods and helping women to build economic independence, her innovative approach will also help to deliver more affordable nutrition and conserve aquatic biodiversity.

As a girl, Oluwatosin saw women farmers in rural communities struggling to feed their fish due to high costs, often prompting them to sell part of their harvest early or abandon farming altogether. During her undergraduate studies, she discovered that fish feed could influence some physical and genetic traits in Tilapia fish. This sparked her curiosity to better understand the link between genetics, nutrition and sustainable aquaculture, which became the driving force behind her research journey.

Oluwatosin is proud of being a woman in science making meaningful discoveries in fisheries and aquaculture. Beyond personal fulfillment, her success also brings opportunities to inspire other women to thrive, contribute and lead in science.

## Modupe Stella Ayilara

Post-doctoral researcher in Microbiology



*“I would like to see science provide affordable, nature-based solutions that eradicate hunger and restore degraded environments.”*

MICROBIOLOGY LABORATORY,  
NORTH-WEST UNIVERSITY, MAFIKENG, SOUTH AFRICA

### Improving Soil health and Food Security in Africa

Modupe Stella Ayilara is rewarded for her research on beneficial soil microbes that enhance crop growth, restore soil health and reduce reliance on chemical fertilizers. By developing these microorganisms into products for farmers, she aims to provide sustainable, affordable solutions that improve yields, promote food safety and contribute to climate-resilient agriculture in Sub-Saharan Africa.

Her curiosity for science began in childhood, when she observed how plants thrived differently in diverse soils. At school, she was encouraged by teachers who nurtured her curiosity. This fascination deepened into a professional pursuit during her microbiology studies, when she discovered the potential of microbes to improve agriculture, restore ecosystems and support food security.

For Modupe, being a woman in science means using knowledge to create change. She has persisted in the face of challenges, built credibility through publications and seized leadership roles, with the support of her mentors. She feels both a responsibility and a privilege to inspire younger women and girls, highlighting that science is a space where women can lead, innovate and thrive.

## Fekandine Victoire Douti

Doctoral student in Microbiology and Immunology



*“I hope that we will fight and overcome anti-parasitic resistance and develop medicines that deliver an effective and definitive cure.”*

BIOLOGICAL SCIENCES, LABORATOIRE DE MICROBIOLOGIE ET DE CONTRÔLE QUALITÉ DES DENRÉES ALIMENTAIRES & UNITÉ DE RECHERCHE EN IMMUNOLOGIE ET IMMUNO-MODULATION, LOMÉ UNIVERSITY, TOGO

### Innovating towards a cure for parasitic worm resistance

Fekandine Victoire Douti is recognized for her work to develop new therapies to fight helminth resistance. This is a particular challenge in Africa, which is endemic to taeniasis, a disease caused by parasitic worms. Her research focuses on isolating natural bioactive compounds from plants. She is innovating by exploring the impact of plant extracts on worms at a cellular level, moving science further towards an effective medicine.

Inspired to pursue biology at school, she later felt a strong vocation to address public health challenges, such as drug resistance. By identifying the potential of plants to exterminate worm cells together with larval or adult worms, she is paving the way for a cure for taeniasis, which stands to benefit the health of millions of people.

Being a woman scientist is an immense source of pride for Fekandine. She fully believes that women are shining in science, despite their low numbers. She has also overcome the challenges of work-life balance by striving to optimize her approach, including by participating in Togo's Presidential Excellence Program, an initiative designed to empower Masters students and Young Graduates to gain prestigious roles in the public sector.

## Opeyemi Alaka Hamidat

Doctoral student in Pharmacognosy



“*Women scientists deserve real credit for their achievements and the opportunity to undertake leadership roles without experiencing bias.*”

LIFE AND ENVIRONMENTAL SCIENCES, DEPARTMENT OF PHARMACOGNOSY AND HERBAL MEDICINE,  
UNIVERSITY OF IBADAN, NIGERIA

### *Highlighting the value of medicinal plants in addressing Alzheimer's disease*

Opeyemi Alaka Hamidat is rewarded for her research to understand the benefits of certain Nigerian medicinal plants in addressing Alzheimer's disease. Her work focuses on validating ethnomedicinal plants locally consumed as memory enhancers, isolating and characterizing bioactive compounds derived from them. In this way, she is seeking to find a cure by targeting cholinergic dysfunction and the neuroinflammation causes of Alzheimer's disease.

She enjoyed biology at school and was thrilled to put on her first laboratory coat. Her interest in medicinal plants was inspired by a childhood visit to a traditional healer to seek a cure for a skin concern. Within days of treatment, her symptoms subsided, sparking her curiosity in the healing properties of plants. Alaka has since dreamt of discovering drugs from natural sources to help improve people's health.

As a woman in science, she has benefitted from the strong role model provided by her mother and the mentorship of her PhD supervisor. Their support has been fundamental in overcoming cultural expectations and creating a better work-life balance. It has also boosted her self-confidence and encouraged her to apply for leadership roles.

## Blessing Chioma Oselu

Doctoral student in Bioinformatics



“*One day, science will create more inclusive health prediction tools. I want a future where a woman in Lagos and a woman in London receive equally accurate disease predictions. I want science to give everyone an equal chance to thrive.*”

COMPUTER SCIENCE, COVENANT APPLIED INFORMATICS AND  
COMMUNICATION AFRICA CENTRE OF EXCELLENCE (CApIC-ACE),  
COVENANT UNIVERSITY, OTA, NIGERIA

### *Making precision medicine more inclusive by better predicting disease*

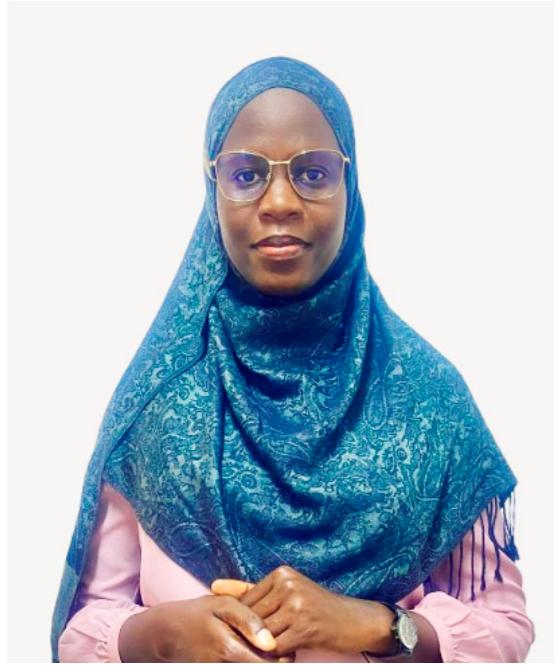
Blessing Chioma Oselu is awarded for her research to test how well genetic risk scores predict disease across populations. Her work will help to make precision medicine more inclusive by exposing gaps and improving accuracy for Africans, particularly in women's health. Blessing's ambition is to create health predictions that work for everyone.

Her natural curiosity was nurtured and encouraged by her school teachers, igniting a lifelong journey in science. From her earliest studies, she was drawn to the hidden codes that shape our lives. Her moment of inspiration came when she learnt that genetics could predict disease risks, yet not equally for Africans. The desire to solve that challenge became the compass guiding her research.

As a woman in science, Blessing has felt the weight of the glass ceiling, pushing against it daily. Yet she is encouraged by seeing women rising through the cracks, mentoring upcoming talents and reshaping science. She is committing to creating more opportunities for progress, so that for future African women scientists, the ceiling becomes sky.

## Aminata Sarr

Doctoral student in Electrical and Electronic Engineering



**“***Science can create a world where the most disadvantaged populations can live in comfort, free from hunger, poverty and the constraints of climate change.* **”**

ENGINEERING AND TECHNOLOGY, RENEWABLE ENERGY AND ENERGY EFFICIENCY LABORATORY,  
INTERNATIONAL INSTITUTE FOR WATER AND ENVIRONMENTAL ENGINEERING,  
OUAGADOUGOU, BURKINA FASO

### *Optimizing land efficiency and yields in combined arable and solar farms*

Aminata Sarr is rewarded for her work to optimize energy, crop yields and water use in agrivoltaics systems, whereby land is used for growing crops and generating solar energy. This stands to increase land use efficiency as the population rises and demand for food and energy grows, while conserving water resources under pressure from climate change.

Encouraged by her family, she pursued science at school with interest, and later developed a passion for research at university, where she benefitted from the mentorship of a male professor. In particular, she realized that she could leverage her studies to help solve social and environmental challenges, and lift people out of poverty. Her current research was inspired by conversations with farmers in rural Senegal during her Master's studies, who shared their water and energy concerns as communities entirely dependent on agriculture.

In her locality of Senegal, most girls either did not attend school or left early. Aminata is therefore a role model for her community. For her, being a woman in science represents a way to show that women can excel and contribute to the development of their country and beyond.

## 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 international *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 4,700 researchers from over 140 countries, promoting scientific excellence and encouraging many young women to pursue scientific studies.

The Fondation L'Oréal also invests in the future of women in science through its *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. On average, 16,000 women benefit from these treatments each year, and more than 67,000 people have been trained in beauty professions since the programme's launch.

## ABOUT **UNESCO**

With 194 Member States, the United Nations Educational, Scientific and Cultural Organization (UNESCO) 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 a network of more than 2,000 World Heritage sites, Biosphere Reserves and Global Geoparks; networks Creative, Learning, Inclusive and Sustainable Cities; and over 13,000 associated schools, university chairs, training and research institutions.

As the only United Nations organization with a specific mandate in the sciences, UNESCO supports international scientific cooperation, develops international frameworks on the ethics of new technologies and encourages the mobilization of local and indigenous knowledge to meet the major challenges of our time – from climate disruption to the collapse of biodiversity and the fragile health of the ocean.

The Organization, which has made gender equality a cross-cutting priority of its mandate, works to remove the obstacles that prevent women from entering scientific careers, to promote their contribution to research and to encourage equal opportunities in all fields of science, technology, engineering and mathematics.

For more than 25 years, the L'Oréal-UNESCO *For Women in Science* programme has been recognizing scientific excellence among women, supporting emerging talents and inspiring young generations of women researchers. It forms part of UNESCO's wider commitment to promoting science for the benefit of all.



All media resources of the Young Talents Sub-Saharan Africa Awards program  
L'Oréal-UNESCO *For Women in Science*  
are available on  
[www.fondationloreal.com](http://www.fondationloreal.com)

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



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