

RULES & REGULATIONS OF THE 13th EDITION YOUNG TALENTS SUB-SAHARAN AFRICA L'OREAL-UNESCO FOR WOMEN IN SCIENCE

1. Introduction

The L'Oréal-UNESCO For Women in Science sub-Saharan Africa regional program aims to promote and encourage the participation of young African women in science. This program identifies and rewards young talented researchers in the formal sciences, life and environmental sciences, material sciences, engineering sciences and technological sciences (list of disciplines in Appendix 2).

Since the inception of the sub-Saharan Africa regional program, the majority of applications received have been from South Africa. Given the importance of the challenges of African scientific research and our commitment to encourage more women scientists across sub-Saharan Africa, we decided to split the initial regional program into two separate programs:

- A national program dedicated to South Africa
- The regional program for sub-Saharan Africa, dedicated to the 48 other countries of the region (see the list of countries in Appendix 1)

For this 13th edition, 20 endowments will be given to encourage young researchers currently in doctoral or post-doctoral studies to pursue a brilliant scientific career.

- 15 endowments of 10,000 € each, will be allocated to 15 doctoral students enrolled in a doctoral school and in a research laboratory in sub-Saharan Africa (see section 2. Eligibility criteria).
- 5 endowments of € 15,000 each, will be allocated to 5 post-docs working in a laboratory or research institute in sub-Saharan Africa (see section 2. Eligibility criteria)

2. General conditions of eligibility

a. For doctoral students

- Having the nationality of one of the 48 countries in the sub-Saharan African region
- And being enrolled in a doctoral school and carry out their doctorate in a research laboratory in one of the 49 countries in the region (including South Africa)
 OR
- Having the nationality of one of the 49 countries in the sub-Saharan African region (including South Africa)
- <u>And</u> being enrolled in a doctoral school and carry out their doctorate in a research laboratory in one of the 48 countries of sub-Saharan Africa

 $Therefore, applicants\ originally\ from\ South\ Africa\ doing\ their\ research\ in\ South\ Africa\ are\ not\ eligible\ for\ this\ program.$

• Conducting research in one of the scientific fields listed in Appendix 2

b. For post-doctorates

- Having the nationality of one of the 48 countries in the sub-Saharan African region
- And being enrolled in post-doctorate in a research laboratory or an institution in one of the 49 countries in the region (including South Africa)
 OR
- Having the nationality of one of the 49 countries in the sub-Saharan African region (including South Africa)
- <u>And</u> being enrolled in a post-doctorate in a research laboratory or an institution in one of the 48 countries of sub-Saharan Africa

Therefore, applicants originally from South Africa doing their research in South Africa are not eligible for this program.

- Having obtained a doctorate in one of the scientific fields listed in Appendix 2
- Have defended their thesis after February 2017. If the postdoctoral applicant has one or more children, this deadline is brought forward by one year per child.
- Conducting research in one of the scientific fields listed in Appendix 2Having started the post-doctorate before 02/03/2022, opening date of the call for application

To note:

Candidates who have already been supported by one of the national or regional L'Oréal-UNESCO For Women in Science program are not eligible.

3. Selection criteria

The selection criteria by the jury are as followed:

a. The quality of the application

The applicant must:

- Demonstrate how the training or the practical and theoretical knowledge acquired within the host organization contribute to the work of the current research.
- Valorize the excellence of the academic record (number, quality and impact of publications, conference presentations, patents, etc.),
- Include the research summary formulated in clear terms in 200 words maximum,
- Include exemplary and explicit letters of recommendation.

Origin (s):

- Letter from the thesis director
- Letter of acceptance from the laboratory reception team for the year 2022-2023.
- If possible, from a peer in the research area of the thesis and / or postdoctoral project (which is not part of the environment close to the candidate).

Content:

- Recognition of the scientific quality and the importance of the work carried
 out and envisaged in the research work (originality, scientific scope, even
 economic and social scope). It is important to show how the candidate really
 contributed. It's not the lab's work we're talking about, but the one she did
 or will do herself.
- Appreciation of the human qualities of the researcher, of her autonomy, her inventiveness, her creativity and her ability to interact in an efficient, productive, caring way and with others (sharing, listening, mentoring...)

b. Scientific excellence in research

- The research describes the research plan as a whole, including the methodology, as well as the scope, novelty and possible repercussions of the research.
- A detailed description of a maximum of two pages (including the references).

 *Justified text, Times New Roman font, size 12 with single spacing.

- Relevant and well prepared, the description illustrates an innovative and creative spirit.
- This research work must contribute to knowledge in the research area of the candidate and make it possible to promote scientific work, in the country, in African and abroad.

c. The candidate's ability to communicate and promote science to young people

d. Fluency in the English language is desirable:

- To be able to fully benefit from the training in "Management and Leadership" given in English
- To be able to benefit from the media exposure thanks to the various events (interviews, etc.) that will be offered to them.

4. Endowment: definition and use

a. Definition

20endowments will be given by The Young Talents Sub-Saharan Africa L'Oréal-UNESCO For Women in Science Program.

- Candidates awarded in the "Doctoral" category receive an endowment of 10,000 euros each.
- Candidates awarded in the "Post-doctoral" category receive an endowment of 15,000 euros each.

The endowment is paid directly to the Young Talents by the L'Oréal Foundation after the Prize-giving ceremony, and after having received the original documents necessary for the bank transfer.

Each beneficiary must inquire about the taxation linked to this endowment.

The endowments are non-renewable.

They can be combined with other allowances: other donations, prices, salary and funding for doctorates and post-doctorates.

b. Use

The endowments are intended for the researchers themselves and must be exclusively devoted to the promotion of research in their country, or of the researcher in a professional framework.

Some examples of use:

- Purchase of computer equipment or advanced equipment. It is understood that the endowments must in no case replace the responsibilities of the laboratory vis-à-vis its researchers. As a result, endowments cannot be used to procure basic laboratory equipment.
- Travel in the country or abroad to meet experts or create collaborations.
- Funding to attend conferences, congresses, training $\!\!\!/$ knowledge acquisition, creation of a business plan etc.
- Funding for babysitters to attend conferences and congresses for example.
- Purchase of scientific articles.

5. Application

Applications are made by the candidates themselves only through the online platform: www.forwomeninscience.com.

An application is only considered complete when it includes all of the following documents:

- A detailed CV of 1 to 2 pages maximum including training, dissemination actions, commitments of the candidate, etc.
- Copies of diplomas or certificates obtained from the license in their original language,
- A summary of research work in 200 words maximum (intended for a panel of scientific experts),
- A detailed description of the research work of <u>2 pages maximum</u>, including the references (Text justified, Times New Roman font, size 12 with single spacing)
 - An application will be considered complete if it contains a detailed description of the research project and its methodology. If animal experiments are carried out as part of the submitted research project, these experiments must be described in detail. The necessity of the animal experiments or the lack of alternatives must be justified.
- An estimated budget detailing the expenditure envisaged to support the coherence and realism of the research work. This budget must not exceed € 10,000 for doctoral students and € 15,000 for post-doctoral researchers (in the form of a table with projected expenses). If the estimated budget is less than the amount allocated, the excess may be spent after the year following the Prize (there is no limited time for its use).
- At least two letters of recommendation, each assessing the quality of the CV, the originality of the project and mentioning the relationship and human dimensions of the candidate.
- A list of the candidate's publications (from the most recent to the oldest),
 - > for doctoral students: the 2 publications (article, patents, oral communications, posters, etc.) published or in the process of being published.
 - > for post-doctoral students: the 2 most important publications (scientific publications, patents, etc.).

To note:

- Incomplete files or files received after the deadline, as well as applications which do not meet the conditions set out above, will not be taken into consideration.

The jury is subject to a duty of confidentiality with regards to documents entrusted to him/her.

6. Selection of Young Talents

The candidates will be preselected by a committee of experts and then presented to an independent jury made up of eminent researchers from the African continent. The jury is chaired by the President of the African Academy of Science.

You will find in Appendix 3 the evaluation grid and the coefficients associated with each criterion.

The jury's decision is final and cannot be appealed. It can neither be disputed nor subject to explanations or justifications.

The results will be communicated by telephone and email to the 20 beneficiaries after the deliberations of the jury. They must remain <u>confidential</u> until the Awards ceremony.

7. Collaborative actions of young talents

The researchers commit to:

- Continue the research work for which the Young Talent Sub-saharan African L'Oréal-UNESCO For Women in Science Award was obtained.
- Carry out the expenses detailed in the estimated budget of the application file.
- Write a report on the research work, subject of the endowment, to be submitted to the L'Oréal Foundation in the year following the awarding of the Prize.
- Participate in the "Management and Leadership" training as well as in the award ceremony to be held in an African capital, probably in November 2022.
 Participation in these events is mandatory, transportation and accommodation costs for beneficiaries from all countries represented will be covered by the L'Oréal Foundation¹.

8. Communication

Young Talents will indicate the Award in the resulting communications under the name "The Young Talent Prize for Sub-Saharan Africa L'Oréal-UNESCO For Women in Science".

They will be photographed, filmed and interviewed for non-commercial purposes related to the communication of the L'Oréal-UNESCO For Women in Science program and the For Girls and

¹ According to the general conditions of transportation and accommodation applicable to the L'Oréal Foundation

Science program. These photos, videos and texts may be used for written and audiovisual publications, allowing dissemination to the French, pan-African and international media. A written image right authorization must be signed by each of the beneficiaries when the contract is signed.

9. Estimated timetable

- Opening of the call for application: February 3, 2022
- Closing of the call for application: March 25, 2022
- First review of applications by experts: April 4, 2022
- Final selection by the jury: July 20, 2021
- Awards ceremony: November ,2021

10.Rules

Participation in the call for applications for the Young Talent Sub-Saharan Africa L'Oréal-UNESCO For Women in Science program implies acceptance of these regulations.

11. Contact us

For any questions relating to the regulations, please consult the online FAQ on the platform www.forwomeninscience.com.

Appendix 1
List of countries included in the program

Angola Benin Botswana Burkina Faso

Burundi Cameroon Cabo Verde

Central African Republic

Chad Comoros Congo

Cote d'Ivoire

Djibouti Eritrea Eswatini Ethiopia Gabon Gambia Ghana Guinea

Equatorial Guinea

Guinea-Bissau Kenya Lesotho

Liberia

Madagascar

Malawi Mali

Mauritius

Mauritania

Mozambique

Namibia Niger

Nigeria

Uganda

Democratic Republic of Congo

Rwanda

Sao Tome & Principe

Senegal Seychelles Sierra Leone Somalia Sudan South Sudan Tanzania

Zambia Zimbabwe

Togo

Appendix 2 List of scientific areas

*This classification of disciplines is based on the *Revised field of Science and Technology (FoS) Classification in OECD Frascati Manual* and adapted to the L'Oréal-UNESCO FWIS Programme

FORMAL SCIENCES

MATHEMATICS	COMPUTER & INFORMATION SCIENCES		
- Applied mathematics - Pure mathematics - Statistics and probability - Biomathematics	- Computer sciences - Information science - Bioinformatics - Artificial intelligence (AI)		

PHYSICAL SCIENCES

CHEMISTRY	PHYSICS
- Biochemistry	- Acoustics
- Analytical chemistry	- Astronomy (including astrophysics, space science)
- Colloid chemistry	- Atomic (physics of atoms, Moessbauer effect)
- Material chemistry	- Mechanics
- Inorganic chemistry	- Molecular and chemical physics: collision, interaction with radiation
- Macromolecular chemistry	- Optics (including laser optics and quantum optics)
- Medicinal chemistry	- Physical chemistry
- Nuclear chemistry	- Condensed matter physics (including formerly solid-state physics, superconductivity)
- Organic chemistry	- Fluids and plasma physics (including surface physics)
- Physical chemistry	- Particles and fields physics
- Electrochemistry (dry cells, batteries, fuel cells, corrosion metals, electrolysis)	- Solid state physics
- Nanomaterials	- Molecular physics
- Phytochemistry	- Nuclear physics
- Polymer science	- Theoretical physics
	- Magnetic resonances
	- Thermodynamics

LIFE AND ENVIRONMENTAL SCIENCES

BIOLOGICAL SCIENCES	BASIC MEDECINE	CLINICAL MEDECINE	HEALTH SCIENCES	HEALTH BIOTECHNOLOGY	EARTH & RELATED ENVIRONMENTAL SCIENCES	AGRICULTURE SCIENCES
- Biochemistry - Bioengineering - Cell biology - Reproductive biology - Extremophyle biology - Evolutionary biology (Anthropology, Archeobiology) - Human biology - Molecular biology - Molecular biology - Molecular biology - Theoretical and mathematical biology - Biophysics - Biotechnology - Stem cells - Chronobiology - Cryobiology - Ecology - Embriology and Developmental biology - Enzymology - Enzymology - Enigenetics - Ethology - Genetics and heredity - Immunology - Metabolism - Biochemical research methods - Microbiology - Mycology - Neuroscience - Paleonthology - Biodiversity conservation - Radiobiology - Plant sciences, botany - Symbiosis - Virology	- Anatomy and morphology - Medicinal chemistry - Human genetics - Immunology - Neurosciences (including psychophysiology) - Pathology - Pharmacology and pharmacy - Physiology (including cytology) - Toxicology	- Allergy - Andrology - Anesthesiology - Respiratory systems - Surgery - Dentistry, oral surgery and medicine - Dermatology and venereal diseases - Endocrinology and metabolism (including diabetes, hormones) - Gastroenterology and hepatology - Geriatrics and gerontology - Hematology - Peripheral vascular disease - Critical care medicine and Emergency medicine - General and internal medicine - Obstetrics and gynecology - Oncology - Ophthalmology - Orthopedics - Otorhinolaryngology - Pediatrics - Psychiatry - Radiology, nuclear medicine and medical imaging - Rheumatology - Cardiac and Cardiovascular systems - Transplantation - Urology and nephrology	- Epidemiology - Infectious diseases - Occupational health - Tropical medicine - Nutrition, Dietetics - Parasitology - Public and environmental health - Sport and fitness sciences - Substance abuse	- Biomaterials (as related to medical implants, devices, sensors) - Health-related biotechnology - Forensic science - Technologies involving identifying the functioning of DNA, proteins (genebased diagnostics and therapeutic interventions, pharmacogenomics, geneediting and recombinants) - Technologies involving the manipulation of cells, tissues, organs or the whole organism (assisted reproduction)	- Contamination & waste management - Ecology - Geochemistry and geophysics - Physical geography - Geology - Geosciences, multidisciplinary - Meteorology and atmospheric sciences - Mineralogy - Oceanography, Hydrology, Water resources - Paleontology - Climatic research - Soil science - Environmental sciences - Volcanology	- Agriculture - Agronomy, plant breeding and plant protection - Agricultural biotechnology and food biotechnology - Agricultural chemistry - Livestock cloning, marker assisted selection, diagnostics (DNA chips and biosensing devices for the early/accurate detection of diseases) - Animal husbandry - Agricultural engineering - Horticulture, viticulture - Fishery - Phytopothology - Animal and dairy science - Soil science - Veterinary science - Forestry - GM technology (crops and livestock) - Biomass feedstock production technologies, biopharming

- Zoology, Ornithology, Entomology, Behavioral sciences biology			
Entomology, Behavioral sciences			
biology			

ENGINEERING SCIENCES AND TECHNOLOGY

CIVIL ENGINEERING	ELECTRICAL, ELECTRONIC & INFORMATION ENGINEERING	MECHANICAL ENGINEERING	CHEMICAL ENGINEERING	ENVIRONMENTAL ENGINEERING
 Civil engineering Architecture engineering Construction engineering, Municipal and structural engineering Transport engineering 	- Detection devices (radar, sonar, lidar) - Automation and control systems - Computer hardware and architecture - Communication engineering and systems - Electrical and electronic engineering - Microelectronics - Robotics and automatic control - Telecommunications	 Aerospace engineering Audio engineering, reliability analysis Nuclear related engineering (nuclear physics to be in Physics) Mechanical engineering Applied mechanics Thermodynamics 	- Chemical engineering (manufacture, production plants) - Chemical process engineering	 Mining and mineral processing Environmental and geological engineering, geotechnics Marine engineering, sea vessels Ocean engineering Petroleum engineering, (fuel, oils), Energy and fuels Remote sensing
MATERIAL ENGINEERING	MEDICAL ENGINEERING	ENVIRONMENTAL BIOTECHNOLOGY	INDUSTRIAL BIOTECHNOLOGY	NANOTECHNOLOGIES
- Ceramics - Composites (including laminates, reinforced plastics, cermets, combined natural and synthetic fibre fabrics; filled composites) - Materials engineering - Paper and wood - Coating and films - Textiles including synthetic dyes, colours, fibres	Medical engineering Artificial Intelligence assisted devices Medical laboratory technology (including laboratory samples analysis; diagnostic technologies)	- Bioremediation, diagnostic biotechnologies (DNA chips and biosensing devices) in environmental management - Environmental biotechnology - Environmental biotechnology related ethics	- Bioprocessing technologies (industrial processes relying on biological agents to drive the process) biocatalysis, fermentation - Bioproducts (products that are manufactured using biological material as feedstock) - Biomaterials, bioplastics, bioderived bulk and fin chemicals, bio-derived novel materials - Industrial biotechnology	- Nano-materials (production and properties) - Nano-processes (applications on nano-scale)

Appendix 3 Evaluation grid

CRITERIA	DESCRIPTION	MULTIPLIER
Research summary	The research summary is formulated in clear terms and is no more than 200 words.	2
Research works	The research work describes all the work in progress at the time of the application. The research plan will be described in its entirety, as well as the scope, the novelty, and the possible repercussions of the research. Relevant and well prepared, it illustrates an innovative and creative spirit. It has no more than 2 pages.	5
Methodology	The experimental design is clear. The technologies used are in line with the objectives of the project. The project is feasible on time.	3
Recommendation letters	The quality and relevance of the letters will be assessed.	2
Scientific contribution	The research work should contribute to knowledge in the research area of the candidate and help promote scientific work, in the country, Africa and abroad. Ability to propose scientific solutions to social challenges facing Humanity.	2
Academic file	Excellence of the application: number, quality and impact of publications, conference presentations, patents, etc.	3
Use of the endowment	An estimated budget which does not exceed € 10,000 for doctoral students and € 15,000 for post-doctoral students.	1
Valorisation and commitment	Overall appreciation including: the excellence of the application, but also the candidate's ability to communicate and promote science to the youngest. NB: the valuation will be weighted according to the thesis year	2
		TOTAL = 100 points AVERAEGE on 5 points

The candidates' applications are reviewed and evaluated according to 8 criteria thanks to an analog scale with 5 scores