

FOUNDATION



**WOMEN  
FOR AFRICA**



# science by women

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Programme For Women, Science,  
Technology and Innovation in Africa

# Overview



The Women for Africa Foundation (FMxA), in line with its mission of contributing to the development of Africa through the drive of its women, launched the SCIENCE BY WOMEN programme, with the aim to promote African women's leadership in scientific research and technology transfer and to foster the capacity of the research centres in their home countries. The main goal is to enable African women researchers and scientists to tackle the great challenges faced by Africa through research in health, agriculture and food security, water, energy and climate change, which can be transferred into products and technologies having impact on people's lives.



**María Teresa Fernández de la Vega Dorcas Osei-Safo**

The programme's ultimate goal is to enable African women researchers to play a leading role in the transition of Africa to a knowledge-based and innovation-led economy.

To achieve this ambitious goal, FMxA collaborates with the Spanish 'Severo Ochoa' and other Centres of Excellence, whose prestige is unanimously recognized throughout Spain and internationally, thereby ensuring excellence in scientific research in various fields. For the 1st the

Edition, they were the Spanish National Cancer Research Centre, the Institute of Photonic Sciences, the Spanish National Centre for Biotechnology, the Carlos III Health Institute, the Institute of Mathematical Sciences.

After the success of 1st Edition, three more Severo Ochoa Centres were included in the programme, the Centre for Genomic Regulation, the Barcelona Graduate School of Economics and the Center for Research in Agricultural Genomics. In the 3rd edition, the associated centers are the Institute of Photonic Sciences, the Spanish National Centre for Biotechnology, the Institute of Mathematical Sciences, the Centre for Genomic Regulation, the Barcelona Graduate School of Economics plus Vall d'Hebron Institut de Recerca, Institute for Neuroscience, Kronikgune Research Center, Biocruces and DeustoTech.

So far, a total of 26 African researchers have been selected.



**Ann Low, Science by Women 2017**



# The project Justification

African economy continues to grow at a 6 per cent rate. In fact, it has not collapsed despite the fall in the prices of minerals and hydrocarbons exports. This vitality is not going to fade thanks to the work of a fledgling middle class and the potential of its population, that 20 years from now will constitute 25 per cent of the global workforce. The group of 15-29 years old, which makes up half the population, needs consumer goods, lodging, financial services, technology, telecommunications. This population includes superb men and women, engineers, scientists, biotechnologists, with the ability to produce those goods and to be players in an industrial revolution.

Africa's alleged shortages are also opportunities: for instance, work on surgical robotics will have a faster growth in Africa than in Europe because there is a lack of operating blocks, and telemedicine, with the possibility of remote diagnostics, is increasingly used because there are not enough doctors and there are many isolated places. The villages in the Sahel region will use renewable energies with intelligent networks sooner than European fields, because in Africa 90 percent of rural communities are not connected to the power grid. The investors that are wagering on these opportunities and on the vitality of the markets will get their return.

The program Science by Women is built around the ability of African women scientists to research in such growth areas in order to create innovation.

In this model, science, research and innovation must play a key role in accordance with the guidelines of the globalized world that they have been instrumental in creating. This should be done so that, firstly, Africans may be able to live better, but also so that the continent may be able to go from being a receiver to a generator of development in the near future, from a spectator to a player in the field of creating knowledge.

And women wish to be and should be involved. They are doing so because women are the first victims of uncontrolled development that depletes the planet's resources, and they have a strong desire to be part of the solution. African women scientists want to contribute to sustainable solutions for human welfare, social inclusion and environmental sustainability.

Although in Africa the gender gap in the technological and scientific field is still wide, the data from the latest African Innovation Outlook 2014, published by NEPAD, are encouraging. They show a percentage of women researchers of over 40% in some countries (South Africa, Egypt, Cape Verde and Namibia). However, others do not even reach 20% (Mali, Ethiopia and Malawi). The percentage of women compared to the total number of researchers is an important indicator of progress and development.

# General Aim



The program Science by Women has been launched with the ambition to empower African women researchers in STEM (Science, Technology, Engineer and Mathematics) areas and enable them to play a leading role in the transition of Africa to a knowledge-based and innovation-led economy, especially in the areas of

Health and  
Bio-medicine  
Energy

Water and  
Climate Change  
Agriculture and  
Food Safety  
Mathematics

Information  
and  
Communication  
Technologies

Final beneficiaries of the 6-month fellowships in Spanish associated centres are senior African women researchers with at least 3 years of doctoral experience in order to:

- Ensure the knowledge-transfer from senior fellows to their junior teams and doctoral students
- Minimize the risks of brain-leaking which could reduce the impact of the program

## Specific objectives

1. Strengthen skills and competences of selected African women scientists
2. Make the African researchers and their findings visible in the international scientific community
3. Empower African scientists so that they can be role-models for other young girls and encourage them to get into STEM careers
4. Enhance scientific cooperation between Spanish and African centres and promote exchange programs between researchers in order to foster a better mutual knowledge
5. Build a network of African women researchers who both exhibit and provide professional development, mentorship and support to new participants.

In order to achieve the above-mentioned objectives, FMxA carries on different activities such as:

- Negotiations with Spanish research centres with the aim to get their inclusion as partners of the program; drafting of Memoranda of Understanding and Specific Agreements to be ratified and signed by associated centres
- Drafting of Rules and Guidelines and publication of the call for fellowships for each edition after approval of the Governing Board
- Short-listing of beneficiaries
- Communication of results to beneficiaries after final selection by Governing Board and Scientific Committee
- Support and facilitation to final fellows for visa procedures and liaison with Spanish consulates and embassies
- Drafting of Practical Guide about Spain and the city where fellows will be living so they can prepare their trip and accommodation
- Support the participation of fellows in international conferences as well as the publications of their findings in scientific reviews
- Economic and administrative management
- Support and follow-up of the fellows' social integration



Scientific Committee

# Methodology



The Women for Africa Foundation organises and manages the programme Science by Women in close collaboration with associated research centres.

The **Governing Board**, formed by the representatives of the Spanish centres, oversees the technical and operational aspects of the fellowship programme. It is headed by María Blasco with a secretary from the FMxA.

## **MARGARITA SALAS**

President of the Severo Ochoa Foundation and a member of FMxA's Advisory Board, Spain.

## **CRISTINA GARMENDIA**

President of Genetrix and a member of FMxA's Advisory Board, Spain

## **MARIA BLASCO**

Director of the Spanish National Cancer Research Centre, Spain

## **SILVIA CARRASCO**

Director of Transference of Knowledge and Technology of the Institute of Photonic Sciences, Spain

## **CARMEN CASTRESANA**

Vice- Director of the National Biotechnology Centre, Spain

## **JESÚS FERNÁNDEZ**

Director of Carlos III Health Institute, Spain

## **MANUEL DE LEÓN**

Director of Institute of Mathematical Science, Spain

## **JOSÉ LUIS RIECHMAN**

Centre for Research in Agricultural Genomic (CRAG), Spain

## **TERESA GARCÍA MILÁ**

Director of Barcelona Graduate School of Economics, Spain

## **JOAN COMELLA**

Director Research Institute Vall d'Hebron, Spain

## **ISABEL VERNOS**

Group Leader at Center for Genomic Regulation (CRG), Spain

## **ALFONSO BAHILLO**

Director of Deustotech, Spain

## **JUAN LERMA**

Director of the Institute of Neurosciences, Spain

## **LUIS ANTONIO CASTAÑO**

Director of BioCruces Institute, Spain

## **ESTEBAN DE MANUEL**

Director of Kronikune Institute, Spain

## **TERESA LAESPADA**

Representative of the Provincial Council of Bizkaia for Employment, Social Inclusion and Equality Policy, Spain

## **SONIA ABDELAK**

Director of the Biomedical, Genomic and Ontogenetic Research Laboratory at the Institut Pasteur in Tunis.

**FATIMATA DIA SOW**  
the ECOWAS Commissioner of Social  
Affairs and Gender, Nigeria.

**SALIMATA WADE**  
Director of the Human Nutrition  
Research Laboratory at Anta Diop  
University, Senegal.

**GLENDA GRAY**  
President of the Medical Research  
Council, South Africa.

**FRANCISCA NNEKA OKEKE**  
Director of the Department of Physics  
and Astronomy at the University of  
Nigeria.

**PEDRO ALONSO**  
Director of the World Health  
Organization's Malaria Programme,  
Geneva.

**LONDA SCHIENBERGER**  
Director of the European Union and  
United States' Project on Gender in  
Science, Medicine, Engineering and  
Innovation at Stanford University, the  
USA.

**INÉS SÁNCHEZ DE MADARIAGA**  
UNESCO Chair in Gender Equality  
Policies in Science, Technology and  
Innovation, Spain

**RAJAÂ CHERKAOUI EL MORSLI**  
Vice-President for Research,  
Cooperation and Partnership  
at University Mohamed V, Agdal,  
Morocco

The number of associated research centres may vary in each edition depending on their availability. The partnership is ratified every year through Specific Agreements which describe the terms and conditions of both parties.

A short list is drafted by FMxA evaluating the scientific merits and leadership of the applicants as well as the scientific quality

and expected impact of their research projects, and transmitted to the Governing Board. The scientific Committee makes the final selection.

For the 4th edition, the call for fellowships will be published and disseminated by June 2018 after approval by the Governing Board. The final selection will be published by November 2018.

# Direct and indirect Beneficiaries



Final beneficiaries of the program are the fellows selected, designated after a rigorous selection process evaluating the scientific merits and leadership of the applicants as well as the scientific quality and expected impact of their research projects. Successful candidates of 6-month fellowships receive training and integration in a dynamic, multidisciplinary and highly competitive working team, where they are able to develop their research projects and acquire complementary skills, enabling them to transfer their research results into tangible economic and social benefits.

The indirect beneficiaries are the students, doctorands and junior members of the fellows' teams.

So far, the impact is important. Most of the fellows have had their findings published in or submitted to international scientific journals (Elsevier, Royal Statics Society, NOVA Publishers...) and participated in prestigious conferences and MOOC (Academy of Science of France, American Society of Tropical Medicine and Hygiene, Baltimore, SDG Academy...).



Cumba Niang at a round table. Madrid

## Funding

The program is funded by both core funds of FMxA and by associated research centers according different schemes. Private companies as well as public organizations/administrations can also sponsor each 6-month fellowship.

On top of these external resources, additional funds are allocated by FMxA in its yearly budget for management and coordination of the program.

# Beneficiaries

1<sup>st</sup> Edition



## **ANN LOUW**

Dr. Louw is a Professor in the Department of Biochemistry at the University of Stellenbosch (South Africa). She holds a PhD from that University as well as an MSc in Biochemistry (cum laude) and a BSc (Hon). She also has a BSc in Biochemistry and Physiology. Mrs. Louw's current research focuses on phytoestrogenic compounds found in extracts of *Cyclopia*, a plant indigenous to South Africa that is used to prepare an herbal tea. Specific extract SM6Met holds potential for the prevention and/or treatment of breast cancer. At the CNIO, she continued her research taking it to the next level by identifying the specific compound(s) in the SM6Met and could get confirmation that it can inhibit the growth of breast cancer cell lines independently of the presence of the ER. She plans to publish some of the results as part of a paper. *"Even if not published the results have opened up new avenues to explore regarding the chemopreventative/chemotherapeutic potential of SM6Met."*



## **CHANTAL EBEL**

Dr. Ebel is Assistant Professor at the Institut Supérieur de Biotechnologie de Sfax since 2004. She teaches Molecular Biology and Genetic Engineering, Plant Biotechnology and Microbial Genetics. She is an active member of the group "Plant Protection and Improvement" (under direction of F. Brini) studying plant responses to abiotic stresses in cereals. She works in a new project aiming to investigate the role of a gene in a durum wheat. She has also evaluated the socio-economic impact of her research in agricultural politics for semi-arid countries such as Tunisia. After her fellowship at CNB, an article co-authored by, among others, Dr. Ebel and her PhD student Mariem Bradai, beneficiary of Learn Africa program, was published in PLOS ONE doi.org/10.1371/journal.pone.0191272.



## **COUMBA NIANG**

Dr. Niang is a Senegalese researcher in Laboratoire de Physique de l'Atmosphere et de l'Océan Simeon-Fongang (LPAO-SF). She studied at Cheikh Anta Diop University of Dakar . where she got her Bachelor Degrees and her two Master's Degrees. In 2015 she earned her PhD in a program of the Federal University of Technology AKure (FUTA) in Nigeria and LPAO- SF in Dakar. Her work at ICMAT is a first attempt to perform a comprehensive analysis of moisture sources that affect the major precipitation over West Africa during the boreal summer through a sophisticated mathematical method. This potential prediction is of vital importance for water resources and agriculture. Her findings were so relevant, that University Complutense of Madrid offered her another fellowship to keep working with its team on the same project.



### **DORCAS OSEI-SAFO**

Dr. Osei-Safo is a Ghanian, Senior Lecturer in the Department of Chemistry at the University of Ghana. Her area of specialization is Natural Product Chemistry. Her research interest is isolation and characterization of bioactive compounds from medicinal plants and application of quality assurance methods to antimalarial drugs. The goal of the anticonvulsant work is to develop a polyherbal anticonvulsant product as an example of utilization of natural resources for quality health. Dr. Osei-Safo carried on her research at CNIO. *"On my return home, the insight and experience I gained during my six-month fellowship have positively impacted my research team and I am pleased to report that the research findings have culminated in an article recently published in Elsevier Fitoterapia"* [www.dz.doi.org/101016/jfi tote.2017.09.001](http://www.dz.doi.org/101016/jfi tote.2017.09.001)



### **JELAN MOFEED EL-SAYED**

Dr. Mofeed El-Sayed is an Egyptian, Associated Professor of Environmental Pollution (Microbiology) at the Faculty of Fish Resources, Suez University. She has a large experience in identification of both marine and fresh water algae, the use of algae as bioindicators for pollution, biomarkers and innovative techniques in intensive aquaculture of marine algae in order to increase productivity in the field of aquaculture and energy production. Her research at the CNB focused on the development of the necessary tools in algae molecular and synthetic biology for accumulation desired products, the production of algae biomass (including sequestration of CO<sub>2</sub> from flue gases), use of cyanobacteria for the production of bio-photovoltaic panels.



### **MANGAKA CLARA MATOETOE**

Mrs. Matoetoe was born in Lesotho and lives in South Africa. Mrs Matoetoe studied at the University of Lesotho where she got her Bachelor Degree in Science. She obtained again her BSc (hons) and a Master's Degree at the University of Cape Town. In 1999 she received her PhD at the University of Pretoria. Currently she is associate Professor of Chemistry at the Cape Peninsula University of Technology and head of the electrochemistry research group. In Spain, Dr. Matoetoe has been working at the ICFO on remediation and detection of trace pollutant in the environment changing the mode of detection from electrochemical to plasmonic. These will involve spectral interrogation of the platforms before and after incorporating a bio molecule. Among these they assessed potential of bio metallic nanomaterials for detection of neverapine.



### **NAHLA OSMAN MOHAMED ALI**

Dr. Ali was born in Atbara, Sudan. She studied at University of Khartoum where she obtained a Bachelor degree in 1993. She continued her studies and in 1998 she got Master's Degrees at the University of Glasgow (UK) as well as the University of Khartoum. In 2003 she presented her PhD dissertation *"An Investigation of CRK protein kinases of Leishmania and the assessment of their potential as drug targets."* Dr. Ali argues *"mosquitoes have a significant role as vectors of many serious human and animal diseases such as malaria, yellow fever, encephalitis, lymphatic filariasis and Rift Valley fever. Three genera of medically important mosquitoes are found in Sudan."* Dr. Ali has focused her research to understand the infectivity dynamics and contribute to solving the health problems in Sudan. She realised her research at the Carlos III Health Institute.



### **NOSIPHO MOLOTO**

Dr. Moloto is a South African senior researcher at the University of Witwatersrand in South Africa. She studied at the University of Zululand where she got her Bcs and her Master's Degree (Cum Laude). From 2014 she is a Professor and senior researcher at the University of Witwatersrand. In the Institute of Photonic Sciences (ICFO, [www.icfo.eu](http://www.icfo.eu)), Dr. Maloto's research focused on the synthesis and characterization of metal chalcogenide nanocrystals for application in solar cells. Lerato Machogo, one of her doctoral students, got a Learn Africa postgraduate scholarship in University of Málaga.

## **Beneficiaries**

### 2<sup>nd</sup> Edition



### **IFEOMA ENWEANI**

Since 15 years Doctor Enweani, who obtained her PhD in Medical Microbiology in 1998, has been teaching Microbiology in Nigeria. She is presently attached to the Department of Medical Laboratory Science of the Nnamdi Azikiwe University. She is currently working on the potential use of soursop and sweetsop fruit juices with supplements in the management of diarrhea and malnutrition in children, with the clear objectives of reaching a drastic reduction of mortality and of creating room for capacity building, empowerment and food security among women and children. She is undertaking her research in the Carlos III Health Institute.



### **YEMISI ADESIJI**

Dr. Yemisi Adesiji is a Nigerian senior lecturer in the Department of Medical Microbiology and Parasitology of the Ladoko Akintola University of Technology, Osogbo and acting as the head of department of Veterinary Microbiology at the University of Ilorin. With over 10 years of teaching experience she has contributed to knowledge of Epidemiology of food borne pathogen of zoonotic importance in Nigeria as her various publications show. Her research interest mainly lays in genomic studies and especially in developing vaccination against Tuberculosis infection in cattle and humans in developing countries. She undertook her research in the Carlos III Health Institute.



### **CHIAKA ANUMUDU**

Dr. Chiaka Anumudu is a Nigerian senior lecturer, who obtained her PhD in Zoology (Cellular Parasitology) at the University of Ibadan. During more than 13 years her research activities have been in the area of the immunopathogenesis and molecular epidemiology of simple and severe malaria in Nigerian endemic country settings. She is currently interested in translational research for control of schistosomiasis especially in the context of co-infection with malaria. Dr. Anumudu is undertaking her research in the CNIO and has presented her findings in the 66 Annual Meeting of the American Society of Tropical Medicine and Hygiene, Baltimore, as well as at University of Valencia.



### **SARRA ARBAOUI**

Dr. Sarra Arbaoui is a Tunisian research assistant within the High Agronomic Institute of Chott Mariem, Tunisia. She got her PH. D in Agricultural Sciences, presenting a thesis on the potential of kenaf (*Hibiscus cannabinus* L.) for phytoremediation of trace metals polluted soils. In 2014 she won the L’Oreal-UNESCO award for women in Science. After her fellowship in the CNB, she provided a module titled “*Sustainable food systems: a Mediterranean perspective*” by SDSN Mediterranean ([www.unsdsn.org/](http://www.unsdsn.org/)) for the MOOC Sustainable farming systems under environmental and climatic constraints for the SDG Academy ([www.courses.sdgacademy.org/](http://www.courses.sdgacademy.org/)). She has written with her Spanish team a book chapter that will be available online in 2018 “*Arsenic, the silent threat. New phytoremediation strategies for contaminated soils and waters*”.



### **ELIZABETH KIZITO**

Dr. Elizabeth Kizito has a doctorate degree in Plant breeding obtained from the Swedish University of Agricultural Sciences, Uppsala and she is currently a senior lecturer and head of the Department of Agricultural and Biological Sciences at the Uganda Christian University, Mukono. She is passionate about improving the plight of the indigenous African vegetables, especially the Solanaceae family, which have great potential in meeting the nutritional needs in Africa, and improving the situation of many women small scale farmers involved in its production. She is undertaking her research in the CRG.



### **NOBANATHI MAXACATO**

Nobanathi Maxacato, a young South African doctor, obtained her PhD in Chemistry from the University of Pretoria in 2012. She is currently a lecturer and research fellow in the University of Johannesburg where she teaches Chemistry for Somatology, for chemical engineering, for food and biotechnology and for environmental health. Her current research aims at finding new catalysts that are capable of solving the problem of surface poisoning at low potentials in Fuel Cells. Her field of study is nanotechnology. She is undertaking her research at the ICFO.



### **ATINUKE ADEBANJI**

Dr. Atinuke Adebajji is a Nigerian senior lecturer who works at the Kwame Nkrumah University of Science and Technology of Kumasi, Ghana. Since 2012 she is a member of the West Africa Climate Change and Land Use (WASCAL) programme. She has developed a strong understanding of statistical theory and methods with application in classification techniques and medical sciences, and she is currently developing a research study on predictive spatial analysis of maternal and neonatal mortality for public health intervention evaluation in Ghana. She pursued her research at the ICMAT and presented her findings at the Academy of Science of France.



### **ELIZABETH KAASE-BWANGA**

Dr Elizabeth Kaase-Bwanga holds a PhD in Economics - Rural Economy and Policy analysis, from the Makerere University of Kampala, Uganda where she is a senior lecturer specializing in Gender and Development Strategies, Feminist Economics and Gender Planning and Monitoring & Evaluation in Local Development. She is realising at Barcelona Graduate School of Economics, a research study on the “*Gender and Privatization of Health Care Systems in Uganda and its Implications for Health Care Enhancement*”, with the objective that her results will enable the government and the health practitioners improving the Uganda health system.

# Beneficiaries

## 3<sup>rd</sup> Edition



### LATIFA DEBBI

Latifa Debbi, from Algeria earned her PhD degree at the University Henri Poincaré, Nancy 1, (France). She is currently Associate Professor at National Polytechnic School, Algiers. Among other positions she has been an Associate Researcher in the Department of Mathematics at the University of York, UK, and a Humboldt Fellowship researcher in Bielefeld University, Germany. In her host research center, the ICFO, she studies the properties of the fractional deterministic and stochastic partial differential equations. This is related to the study of the behavior of some natural phenomena as, for instance, how a fire spreads or the way semiconductor crystals grow in a laboratory.



### SAMIA EL HAJHI

Samia El Hajhi, from Sudán, got her Ph.D. in Immunology in the Institute of Endemic Diseases of the University of Khartoum. She is currently Head of the Department of Immunology and Biotechnology in the Tropical Medicine Research Institute (TMRI) and Associate Research Professor in the same institute. Her research at Vall d'Hebron Institute of Research focuses on placental biomarkers, which are associated with placental malaria and preeclampsia. She hopes to optimize the prevention of the consequence of parasite placental sequestration and to improve the detection of placental malaria.



### JUDITH GBENOUDON

Judith Gbenoudon, from Benin, obtained her PhD in Immunology, at the Institute for Tropical Medicine in Hamburg, Germany and held postdoctoral positions in Hamburg, Bonn, and in the Gambia. She is currently Director of the Laboratory of Immunology, Infectious and allergic diseases at the Institute for Applied Biomedical Sciences in Cotonou. During her fellowship at the CNB she carries out her project *"Tumour Immunomarkers and the Development of Immunotherapy"*, with the aim to determine the specificities of immunotherapy in cell isolated from patients in infectious endemic areas, like Benin compared to cells from patients in cleaned areas like Spain. Cancer affects more women that die without good care for cure.



### RAQUEL DUARTE

Raquel Duarte, a molecular biologist from South Africa, is Senior Lecturer in the Department of Internal Medicine, University of the Witwatersrand, in Johannesburg, and Head of the Internal Medicine Research Laboratory in the same university. During her fellowship at the CRG she tries to evaluate the underlying genetic basis for disease and the utility of current markers as Breast Cancer (BC) predictors in African populations. She focuses her research on the mechanisms governing expression of a key gene in breast cancer susceptibility. She explores the regulatory mechanisms controlling transcription and alternative splicing of the Fibroblast Growth Factor Receptor 2 gene.



### FLORA STEPHANO

Flora Stephano, from Tanzania, got her PhD in Zoophysiology from the University of Kiel, Germany, and is currently Lecturer at University of Dar es Salaam. During her fellowship at the Institute of Neurosciences, Dr. Stephano will study *“The role of Wnt signaling pathway in the dopaminergic neurons in rotenone induced Drosophila model of Parkinson’s Disease (PD)”*. She investigates the neuroprotective role of selected plants extracts in transgenic Drosophila model of Parkinson’s disease. In fact, since last decade, Drosophila, the fruit fly, has become a tractable model for PD. PD is the second most prevalent neurodegenerative disorder with an incidence of about 1% in people older than 65 years



### ROSE ALANI

Rose Alani, from Nigeria, Ph. D. in Environmental/Analytical Chemistry, is Senior Lecturer at the Chemistry Department in the University of Lagos. The title of the research she conducts in her host center, the ICFO, is *“Environmental Pollution Monitoring using Infra-red Spectroscopy and Complementary Metal-Oxide Semiconductor (CMOS)”. based Image Cytometer*” which aims at developing new photonic technology platforms and assessing them for air pollution and water quality monitoring. Air and water pollution in Nigeria is a national emergency. In fact, the recent released data by the World Health Organization (WHO) showed four cities in Nigeria as the worst cities in the world for air pollution.



### BEATRICE MURIITHI

Beatrice Muriithi, from Kenya, holds a PhD in Agricultural Economics from Bonn University, Germany, and is currently, a Post-Doctoral Fellow at the Social Science and Impact Assessment Unit at the International Center for Insect Physiology and Ecology (ICIPE) in Nairobi, Kenya. At the Barcelona Graduate School of Economics Dr. Muriithi works with the research Group on Applied Economics, Development and Political Economy on her project: *“Gender and impacts of Push-Pull Technology (PPT ) on nutrition, input demand and saving: Evidence from East Africa”*. The (PPT) Technology is a novel approach in pest management which uses a repellent intercrop and an attractive trap plant. The findings of this study are expected to highlight important PPT gaps that can be addressed during up-scaling efforts especially gender-related technology adoption gaps.



### MONA ELLAITHI

Mona Ellaithi, from Sudan, holds a PhD in Human Genetics from Al-Neelain University/ Lübeck University-Sudan/Germany and is currently Assistant Professor in Human Genetics at Al-Neelain University, Khartoum and Postdoctoral Fellow in the International Centre for Genomics Engineering and Biotechnology, Trieste, Italy. At her host center, BioCruces, she works on her project *“Detection of common variants associated with Sudanese patients diagnosed with disorders of sexual development (DSDs) using NGS sequencing (Exome and Panel sequencing technology)”*. In this study Dr. Ellathi will perform panel sequencing of almost 50 genes known to be associated with DSDs. The findings will be tested on larger DSDs sample size.



### **SALWA EL-SOBKEY**

Salwa El-Sobkey, from Egypt holds a PhD in Physical Therapy for Cardiopulmonary Disorders and Geriatrics from Cairo University and is currently Associate Professor in the same university. In Kronigkune, her host center, she works on building scientific background and database regarding the healthcare services and Health-Related Quality of Life (HRQoL) of old Egyptian females, which are the segment of population who suffers the most from the challenges facing the healthcare services in Egypt. This is partly because of the impact of aging and partly because of their modest educational attainment ratios.



### **LEONTINE NKAMBA**

Leontine Nkamba, from Cameroon, holds a joint Ph.D in Applied Mathematics from University of Lorraine (France) and University of Gaston Berger (Senegal). She is currently Senior Lecturer at University of Yaoundé 1, Higher Teacher Training College, Department of mathematics and Co-Chair of the Commission on African Women in Mathematics. In December 2017 she has been appointed by the President of the Republic of Cameroon Vice Director of National School of Posts, Telecommunications and Information Technologies. She has published largely about mathematics applied to health and infectious diseases. In fact, the research Dr. Nkamba works on at DeustoTech is titled *“Mathematical modelling of the spatio-temporal spread of tuberculosis”*.

## Associated Research Centers

Spanish National Cancer Research Centre (CNIO) [www.cnio.es](http://www.cnio.es)  
Institute of Photonic Sciences (ICFO) [www.icfo.eu](http://www.icfo.eu)  
Spanish National Centre for Biotechnology (CNB) [www.cnb.csic.es](http://www.cnb.csic.es)  
Carlos III Health Institute (ISCIII) [www.isciii.es](http://www.isciii.es)  
Institute of Mathematical Sciences (ICMAT) [www.icmat.es](http://www.icmat.es)  
Centre for Genomic Regulation (CRG) [www.crg.eu](http://www.crg.eu)  
Barcelona Graduate School of Economics (GSE) [www.barcelonagse.eu](http://www.barcelonagse.eu)  
Center for Research in Agricultural Genomics (CRAG) [www.cragenomica.es](http://www.cragenomica.es)  
Vall d’Hebron Institut de Recerca (VHIR) [es.vhir.org](http://es.vhir.org)  
Institute for Neuroscience (IN) [in.umh.es](http://in.umh.es)  
Kronigkune Research Center [www.kronigkune.org/en](http://www.kronigkune.org/en)  
Biocruces (bc) [www.biocruces.com](http://www.biocruces.com)  
DeustoTech [deustotech.deusto.es](http://deustotech.deusto.es)



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centro de investigación en cronicidad



**science by women**

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