



From the chair of the Sponsoring Group of *icipe*

Dear colleagues and friends of *icipe*,

icipe is continuing to extend its reach globally. New partnerships and international opportunities allow the institute to collaborate with the world's best and show that *icipe*'s expertise is widely valued.

In the first few months of this year, the Centre welcomed more than 35 individuals and delegations for meetings and research discussions, and the Director General has been invited to speak at meetings across Europe, Asia, Africa and the USA.

icipe has recently signed new agreements with a number of international organisations, so I hope to see the institute making even more of a splash on the world stage.

As a founding member of AIRCA, the Association of International Research and Development Centres for Agriculture, *icipe* recently hosted the Directors General of nine international research centres that share *icipe*'s focus on research for development. AIRCA is a great initiative, which helps these institutes to share ideas on best practice and to foster closer links between research teams across the world.

I'm pleased to note some recent groundbreaking work conducted at *icipe*. The OviART team are the first in the world to identify a chemical that attracts pregnant malaria-transmitting mosquitoes – a discovery which could boost malaria control efforts.

Finally, I would like to congratulate several *icipe* researchers and students who have been recognised with awards recently. You can read more about these in this newsletter.

Dr Gity Behravan
Chair of the Sponsoring Group for *icipe*
Senior Research Advisor and First Secretary: Regional Research Cooperation
Embassy of Sweden in Kenya

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...PLUS MANY MORE ARTICLES

icipe by the numbers:

<p>number of publications published and in press so far in 2015</p> <p>63</p>	<p>visitors and delegations welcomed to <i>icipe</i> in 2015</p> <p>35</p>	<p>schoolgirls met by <i>icipe</i> scholars at careers day</p> <p>400</p>	<p>new scholars in our ARPPIS and DRIP programmes</p> <p>7</p>	<p>journals now freely accessible to <i>icipe</i> staff</p> <p>45,000+</p>
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icipe building partnerships with the world

We recently welcomed a high-level delegation from the University of Helsinki to better understand our research and discuss potential areas of collaboration. The group included the Chancellor of the University and professors in a range of disciplines from socioeconomics to geoinformatics.



Visitors from the University of Helsinki with staff from icipe: Dr. Heidi Andersson, Dr Tobias Landmann (icipe), Prof Kurt Fagerstedt, Dr Christopher Prideaux (icipe), Prof Laura Kolbe, Prof Jussi Pakkasvirta, Dr Tino Johansson (icipe), Dr Segenet Kelemu (icipe), Prof Juha Karhu, Prof Thomas Vilhelmsson, Prof Jouko Rikkinen, Prof Jouko Väänänen and Prof Petri Pellikka.

The group toured our new African Reference Laboratory for Bee Health, and the Martin Luscher Emerging Infectious Disease Laboratory, two recently-built facilities which greatly increase icipe's ability to conduct world-leading research.

Of particular interest was CHIESA, a project focused on climate adaptation in East Africa, which is funded by the Government of Finland. The head of this project, Dr Tino Johansson, is himself a Finn and shared with them some recent successes.

AIRCA Steering Committee meeting



Leaders from AIRCA member institutes: Shekhar Ghimire (ICIMOD), Dennis Rangir (CABI), Millie Gadbois (IFDC), Sayed Azam Ali (CFF), Segenet Kelemu (icipe), Trevor Nicholls (CABI), Ismahane Elouafi (ICBA), Dyno Keatinge (AVRDC), Marita Dieling (AIRCA), Jose Joaquin Campos (CATIE), Michael Devlin (INBAR), Andrea Powell (CABI), Thomas Dubois (AVRDC), Setta Tutundjian (ICBA).

In February, we hosted the Annual Steering Committee Meeting of AIRCA, the Association of International Research and Development Centres for Agriculture, a nine-member alliance focused on increasing food security by supporting smallholder agriculture and rural enterprise within healthy, sustainable and climate-smart landscapes. *icipe* is a founding member of this

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icipe's global connections

In 2015 so far, *icipe* has signed a number of new international agreements for collaboration in scientific research, knowledge exchange, capacity and institutional development.

- International Fertilizer Development Center, USA
- Kenya Biologics Ltd
- Alexander Von Humboldt Foundation, Germany
- The Swiss Confederation acting through Agroscope Switzerland
- The International Foundation for Science, Sweden



icipe professional staff join AIARC for insurance and benefits

Effective 1 January 2015, *icipe* has become a member of the Association of International Agricultural Research Centers (AIARC), which gives access to a cost effective and efficient medical insurance and retirement schemes for our professional staff.

AIARC is a not-for-profit 501(c)(3) membership corporation based in the USA, providing centralized management of specialized payroll and benefit functions to reduce administrative time and costs.

The President and CEO of AIARC, Jeffrey T. Hungate, met with staff by video conference in January to explain their internationally recognised medical and retirement packages. We believe their worldwide coverage will be a great incentive for staff.

Find out more about AIARC from their website: www.aiarc.org



>>From page 2

AIRCA Steering Committee meeting

group, and our DG is currently the Deputy Chair of the association.

Directors from the nine AIRCA member organisations travelled from all over the globe, some as far as China and Costa Rica, to review achievements and progress of AIRCA in 2014 and set the course for 2015.

Now in its third year, the association allows for greater exchange and cooperation between these nine like-minded organisations. For example, Communities of Practice allow senior staff from each institute to share best practice and give each other advice. Member organisations have also jointly mounted an AIRCA presence at various international conferences, increasing visibility for all members.

The members have also joined together on a concept note for a project focused on [women and youth in the Lake Victoria basin](#),

which will draw on the skills of each institute to improve agribusiness in Kenya, Tanzania, Rwanda, Burundi and Uganda.

While AIRCA will continue to be a light and cost-efficient structure, efforts will be made to attract external funding to supplement the member contributions to strengthen AIRCA in its mission: to put research into use by strengthening capacities for sustainable improvements to incomes, food and nutrition security in healthy landscapes.

The next AIRCA Steering Committee Meeting in 2016 will take place in Costa Rica, hosted by CATIE, the Tropical Agricultural Research and Higher Education Center.

Read more about the AIRCA alliance at: <http://www.airca.org/>

icipe postgraduate scholars: a strong cohort, working together

icipe's students are a dedicated bunch. On top of their study, they find time to improve their skills, support each other and share their work with the community, capably led by a committee of students elected each year: the *icipe* Scholars' Association.

Each fortnight, they hold 'science club' meetings in Nairobi and Mbita to discuss their work and practice their presentation skills. As well as giving them a chance to learn from one another, these meetings can lead to new opportunities: One recent presentation by Mike Okal led to a press release which reached international media.

Coming from across Africa and the world, the students hold each year a 'cultural day' to foster closer ties with each other and with their mentors.

They also take their work out into the community. High school and bachelors' students regularly visit *icipe*, and our students meet them to explain more about life as a scientist.

Earlier this year, a group of our postgrads joined a career awareness day organised by ICT Mashinani Trust, a non-governmental organization that holds events and activities throughout the year to support, encourage and inspire young women and girls. More than 400 schoolgirls from 10 high schools joined the event: "Preparing today's students to be tomorrow's innovators".

icipe postgraduate scholars Bridget Bobadoye, Elizabeth Kusia, Kevin Simbai and Linet Kitambe shared a few words about their work and *icipe*'s research, giving them a taste of the interesting life a scientist can lead. The girls were fascinated by what *icipe* does.

<http://www.icipe.org/index.php/news/932-science-career-day-2015.html>



icipe postgraduate students Linet Kitambe, Bridget Bobadoye and Elizabeth Kusia.



Cross-section of students from over ten secondary schools attending the event.



Kevin Sambai speaking about products that have been commercialized through *icipe*'s research.



Students asking questions about *icipe*'s research activities.



Communicating research to stakeholders: Crawford Fund Masterclass at *icipe*

In March, we were pleased to host a Masterclass in Communicating Research to Stakeholders, organised by the Crawford Fund, an Australian NGO that works to raise awareness of the benefits to Australia and developing countries from international agricultural research, commissions studies on research policy and practice, and arranges specialist training activities for developing country scientists.

Coming from across Africa, 23 participants learned about working with the media, preparing policy briefs, making presentations and more. Several places in the course were

fully sponsored by ACIAR, the Australian Centre for International Agricultural Research.

This course strengthened the existing partnership between *icipe*, the Crawford Fund and the Australian Aid programme. We currently host two Australian communication officers at our offices in Mbita, Kenya and Addis Ababa, Ethiopia, funded by the Australian Government and supported by the Crawford Fund through the Australian Volunteers for International Development programme.

On the final day of the week-long workshop, the Australian High Commissioner in Kenya, H.E. John Feakes, presented certificates and joined the participants for an evening reception.

Read more about the Masterclass, including some blog posts written by participants, at the Crawford Fund website: <http://www.crawfordfund.org/news/news-african-communication-march-2015/>



Workshop participants held practice interviews with local journalists, such as NTV business reporter Zeynab Wandati.



Participants learn from Xinhua journalist Duncan Mboyah about the day-to-day life of a journalist.



Australian High Commissioner H.E. John Feakes and *icipe* Director General Segenet Kelemu present a certificate to *icipe* researcher Beatrice Murithi.

Insects: an overlooked food source

icipe publishes a quarterly scientific journal, the International Journal of Tropical Insect Science. In the foreword to the March issue, the Editor in Chief (the Director General of *icipe*) called for more research into edible insects.

An edited extract follows:

Globally, entomophagy or the practice of insect consumption is carried out by more than 2 billion people and ~ 2000 species are reported as food. Across Africa, commonly consumed species include beetles, caterpillars, grasshoppers, locusts, crickets, termites, cicadas, wasps and ants. This sustainable food source should be managed in the interest of food and nutrition security.

Mounting scientific evidence suggests that insects are not inferior to other sources of protein such as fish, chicken or beef. In fact, the nutritional value of insects

compares favourably with that of meat and fish. However, most edible insects are only seasonally available and have a short shelf life, thus various harvesting and preservation methods are practised.

To further popularize edibility of insects, there is the need for research for development (R4D) activities to address the entire edible insect value chain, from production to legislation to consumer attitudes. Incidentally, some of the top 10 'most cited' IJT papers in 2014 were on edible insects or on laboratory diet for rearing insects.

Indeed, there is a mounting effort to popularize insects as a potential substitute protein source for food and feed. Several forthcoming or concluded conferences (and related initiatives) will help change attitudes towards entomophagy. These endeavours point to a bright future for entomophagy and insects as an alternative food and feed.



icipe is already rearing edible insects for study, including crickets, which are eaten widely across the world.

Read more about these research efforts at:

<http://www.icipe.org/index.php/news/939-insects-an-overlooked-food-source.html>



PUBLICATIONS

Eating the desert locust reduces the risk of heart disease

Eating the meat of the desert locust could be good for your heart, says a study published in PLOS ONE by *icipe*, Jomo Kenyatta University of Agriculture and Technology and United States Department of Agriculture/Agricultural Research Service.



Adult female desert locust ovipositing in the sand

In the paper, the researchers show that the desert locust, known scientifically as *Schistocerca gregaria*, contains a rich composition of compounds known as sterols, which in turn contain cholesterol-lowering properties, thereby reducing the risk of heart disease.

The findings are redeeming for the desert locust, which is probably more reputed for its alarming threat to food security, for instance, through outbreaks in the Sahel region of Africa, which have been known to destroy land and crops, leaving hunger and poverty in their wake.

icipe-KEMRI study proposes strategies for effective IVM for malaria

Integrated vector management (IVM), for malaria can only be successful if there is strong participation and collaboration between community-based groups, non-governmental organizations, international and national research institutes and various government institutions, says a study by *icipe*, published in the *Environmental Health Perspectives* journal.

The IVM strategy recommends the use of chemical as well as non-chemical methods, which should then be integrated into a country's healthcare system. However, the adoption of this approach in Africa is still very low.

The recent findings by *icipe* are based on a comprehensive assessment of the Centre's experiences implementing the IVM strategy in Kenya, with the aim of sharing lessons that might promote its wider application. The study examined two IVM projects implemented by *icipe* between 2006 and 2011, in Malindi, one of Kenya's major tourist destinations, and in



Children and teachers from a school in Malindi, coastal Kenya display a huge ball made from waste plastic paper retrieved in the IVM project clean-up activities. Such waste collects water when it rains, leading to mosquito breeding.

Nyabondo, a rural plateau situated about 30km from Lake Victoria.

Read more at: <http://www.icipe.org/index.php/news/935-icipe-kemri-study-proposes-strategies-for-effective-ivm-for-malaria.html>

'Attract and kill': trapping malaria mosquito mums before they lay eggs

In a world first, a collaboration involving *icipe* researchers has found that a naturally occurring chemical attracts pregnant malaria-transmitting mosquitoes – a discovery which could boost malaria control efforts.



OviART PhD students Manuela Herrera Varela and Mike Okal collected samples from many sites around *icipe*'s campus in Mbita.

The chemical, cedrol, found in mosquito breeding sites near *icipe*'s field station in Mbita Point, Kenya, could be used in traps that would 'attract and kill' the female mosquito, preventing reproduction before she lays hundreds of eggs.

The work was published in the *Malaria Journal* by the OviART research group, a multinational team bringing together researchers from *icipe*, the London School of Hygiene & Tropical Medicine, the Swedish Royal Institute of Technology and the UK's Durham University.

Read more at: <http://www.icipe.org/index.php/news/916-attract-and-kill-trapping-malaria-mosquito-mums-before-they-lay-eggs.html>

New library resources available at *icipe*

Access to research literature and books is vital for all research institutes, boosting scholarship, teaching, research and policy-making.

icipe's Information Resource Centre was recently granted access to Science Direct and Scopus through an access program set up by the Library of Alexandria in Egypt.

Through this program, which promotes research capacity building, *icipe* has been given free access to a vast collection of scientific literature – more than 45,000 journals – including the prestigious Elsevier collection of journals and books.

icipe has also been granted 20 access codes for individuals, which will be distributed to the library and key people around the institute.



icipe's PEOPLE

Major international prize to push-pull lead scientist, *icipe*'s Prof Zeyaur Khan

icipe researcher Prof Zeyaur Khan has won the prestigious Louis Malassis Prize for Outstanding Career in Agricultural Development, awarded on Monday March 16, 2015 during a special session of the 3rd Global Science Conference on Climate-Smart Agriculture in Montpellier, France by the Agropolis Foundation.

Prof Khan has been recognised for his work developing the 'push-pull' system to control pests and weeds, with his team in Kenya at *icipe* and with colleagues at Rothamsted Research in the United Kingdom.

More than 96,000 farmers in Kenya, Uganda, Tanzania and Ethiopia have already adopted push-pull technology

to manage Striga weeds and stemborer pests, which can cause complete yield losses, estimated to cost US\$14 billion each year in sub-Saharan Africa, and affecting more than 40% of its arable land.

"I am happy that I have devoted my life to developing and adapting push-pull, and helping to bring food security to Africa," said Prof Khan. "My aim is to reach at least 10 million people with the technology, while expanding the science behind push-pull to more cropping systems and different agroecosystems."

Read more at: <http://www.icipe.org/index.php/news/914-major-international-prize-to-push-pull-lead-scientist-icipes-prof-zeyaur-khan.html>



L-R: Pascal Kosuth, Director, Agropolis Foundation; Henri Carsalade, President Agropolis Foundation; Prof Zeyaur Khan, *icipe*; Dr Guido Gryseels, Chair 2015 Prize Jury.

AWARD Fellowship for Fiona Nelima Mumoki

Congratulations to Fiona Nelima Mumoki, who has won a prestigious AWARD Fellowship, a highly competitive, merit-based, career-development programme that aims to foster and mentor women agricultural scientists across sub-Saharan Africa.

The AWARD Fellowship pairs the fellows with a mentor, and in Fiona's case this will be Dr Dan Masiga, head of *icipe*'s Molecular Biology, Bioinformatics and Biostatistics Unit.

Together, using tools provided by the Fellowship, they have devised a 'purpose', i.e. the overall goal that Fiona envisions for her professional career. Fiona's aim is to contribute towards empowering

smallscale farmers, especially women, to improve their livelihoods through sustainable beekeeping and pollinator conservation.

"I applied for the AWARD Fellowship because I am now at the point in my career where hard work or intellectual ability are no longer the sole distinguishing factors from my peers," Fiona said. "To excel, I need to be able to address the challenges in balancing my life as a woman and as a researcher."

Read more about Fiona's journey on the *icipe* website: <http://www.icipe.org/index.php/news/925-nurturing-a-dream-icipes-commitment-to-fiona-nelima-mumokis-rising-scientific-career.html>



Fiona Nelima Mumoki.

Prof Clifford Mutero: helping to guide regional malaria policy

Prof Clifford Mutero played a key role in establishing a national multi-sectoral steering committee for integrated vector management (IVM) in November 2013, during a workshop organized by the Biovision-funded program which he is coordinating in Kenya and Ethiopia. The steering committee which is being jointly coordinated from *icipe* and Kenya's Malaria Control Unit (MCU) has scheduled a one day workshop on 30th June 2015 to review and update Kenya's IVM policy.

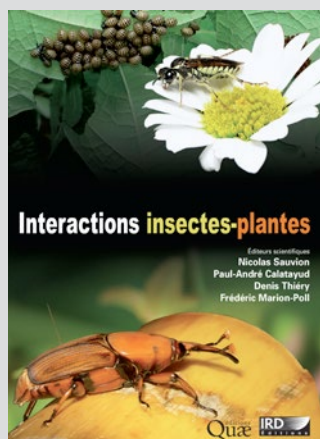
Besides his research at *icipe* and involvement in malaria control policy-making in Kenya, Prof Mutero is in recognition of his expertise a member of the WHO Regional Office for Africa (WHO-AFRO) regional steering committee focused on alternatives to DDT for malaria vector control. In March 2015 he was also invited by the WHO Regional Office for the Eastern Mediterranean (WHO-EMRO) to advise on updating their Regional Integrated Vector Management Strategic Framework.



Children get a first lesson in mosquito ecology from Prof Mutero in Mwea, Kenya.



icipe's PEOPLE



Book prize for Paul-Andre Calatayud

Dr Paul-Andre Calatayud has won the Prix Réaumur from the French Entomological Society, for his book *Interactions insectes-plantes* (Insect-Plant Interactions), edited by MM. Nicolas Sauvion, Paul-André Calatayud, Denis Thiéry & Frédéric Marion-Poll.

This prize, established in 1960, is awarded to a book about biology written in French, with biology taken in its broadest sense.

This award was presented at an official ceremony at the National Museum in Paris in March.



Dr Paul-Andre Calatayud.

Wellcome Trust Masters Fellowship for Joel Odero



Joel Odero.

Joel Odero, a Research Assistant in the OviART project, has been awarded a Wellcome Trust Masters Fellowship in Public Health and Tropical Medicine to study molecular entomology and malaria control.

His project is called 'Tracking the Mothers: Applying Microsatellite Genetic Markers to Guide Strategies for Controlling Anopheles Mosquito Larvae'

He aims to develop genetic microsatellite markers for the malaria-carrying mosquito *Anopheles arabiensis*, and use these to determine how many female mosquitos choose to lay their eggs in natural and artificial habitats

in western Kenya. This work could contribute to new methods of vector control targeting pregnant mosquitos.

Joel will be supervised by Dr Dan Masiga and Dr Ulrike Fillinger at *icipe* and Dr David Weetman at the Liverpool School of Tropical Medicine, UK. He started his fellowship in April, and will leave us in August to spend a year studying in Liverpool

Read more about the prestigious Wellcome Trust Fellowships at: <http://www.wellcome.ac.uk/Funding/Biomedical-science/Funded-projects/Awards-made/Wellcome-Fellows/WTP054703.htm>

Vale Carl Djerassi, supporter of *icipe*

icipe noted with sadness the passing of Prof Carl Djerassi, a Stanford professor and world-renowned chemist.

Djerassi was a key person in the early days of *icipe*, encouraging our founder, Thomas Risley Odhiambo to set up the institute after reading his 1967 [article in the journal Science](#) calling for greater investment in African science.

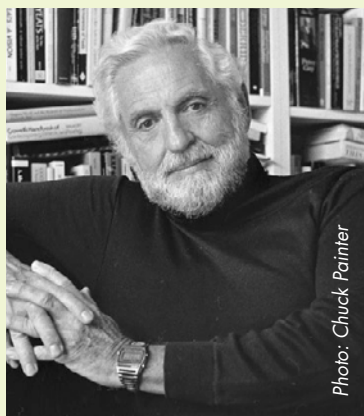


Photo: Chuck Painter

Read his obituary from Stanford University: <http://news.stanford.edu/news/2015/january/carl-djerassi-obituary-013115.html>

Read about the early history of *icipe*: <http://www.icipe.org/index.php/history-of-icipe.html>

Vale Richard Musyoki Masaka

It is with great sadness that we note the sudden and untimely death of *icipe* staff member Richard Musyoki Masaka, a janitorial assistant in the Director General's Office.

Visitors to the DG's Office in Nairobi will remember Richard's warm and gentle manner as he served tea to guests. He was a daily presence in the life of the office and will be sorely missed.

icipe wishes to take this opportunity to convey our sincere condolences to his bereaved family and friends and to wish them God's strength following the tragic loss of our colleague.





NEW STAFF



Justinus Lando Peters, Station Manager, Mbita

Justinus Lando Peters has joined us in January as *icipe* Thomas Odhiambo Station Manager in Mbita. He replaces Francis Onyango who has taken up other responsibilities, setting up a rearing facility in Mbita. As Station Manager, Justinus oversees the day-to-day activities of the Station under the purview of the Director of Finance and Administration

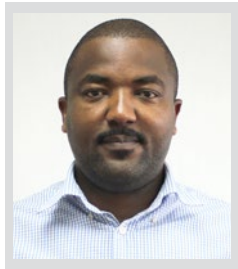
He holds a BSc in Electrical Engineering from the University of Nairobi. Prior to joining *icipe* Justinus was an independent Consultant providing consultancy services to EDN George Diesel Limited and before that he was a consultant with the Institute of Trade Development.



Theresa Maloba, Senior HR Specialist

Theresa started in February as Senior HR Specialist based at the Duduville campus in Nairobi. As Senior HR Specialist, Theresa will provide support on the whole range of human resources functions including playing a lead role in the automation and transfer of all HR functions into a new IMIS (ERP).

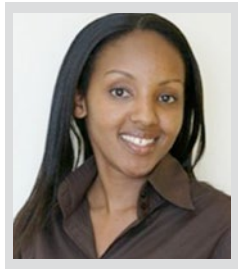
She holds a Masters degree in Organization Development from the United States International University (USIU) and a Post Graduate Diploma in Human Resources from the University of Nairobi. Prior to joining *icipe* Theresa was the Deputy Head of Human Resources at United Nations Development Programme (UNPD), Kenya.



Joseph Muigai Muigai, Internal Auditor

Joseph joined *icipe* in February as Internal Auditor, based in the Director General's Office at the Duduville campus in Nairobi. Joseph will be involved in assessing and improving *icipe*'s financial operations.

He holds a BCom in Accounting from the University of Nairobi and he is a Certified Public Accountant (CPA-K). Prior to joining *icipe* Joseph worked with Nation Media Group as a Senior Internal Auditor. He was involved in reviewing financial and operational internal controls.



Eva Nduta Mbora, HR Coordinator

Eva joined *icipe* in March as Human Resources Coordinator based in Nairobi at the Duduville campus. She will coordinate specific key HR functions such as job evaluation, job classification, salary settings and performance evaluation tools among other things.

She holds a Bachelors degree in Education (Arts) from Kenyatta University and a Higher National Diploma in Human Resources from the Institute of Human Resource Management (IHRM).

Prior to joining *icipe* Eva was a Senior Human Resources Officer at Pricewaterhouse Coopers (PWC).



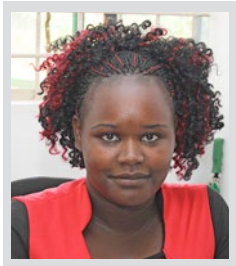
Rachel Awuor Owino, Push-Pull Technology Dissemination Officer

Rachel has joined the Push-Pull programme in Mbita as Technology Dissemination Officer, in charge of training and stakeholder mobilisation. She will be developing new training modules for farmer groups and will assist the research team with the social science aspects of their work. She will also work to improve data collection and monitoring and evaluation of the project and dissemination activities.

She holds a Diploma in Agricultural Education and Extension (AGED) from Egerton University, and has also been trained on sustainable Organic Agriculture from Kenya Institute of Organic Farming (KIOF).

Rachael has a decade of experience in agricultural production extension, particularly working with smallholder farmers and in mainstreaming social development issues within agricultural project implementation processes. She has an in-depth knowledge of participatory rural development approaches, project planning and management.

Prior to joining *icipe*, Rachel worked as a Senior Project Advisor with Heifer Project International Kenya, where she worked with other partners to design, implement and monitor projects that address the needs of smallholder livestock farmers.



Berine Atieno Ada, Senior Accountant

Berine Ada joined *icipe* in March as a Senior Accountant (Projects Accounting) based at Duduville in Nairobi. Berine will be responsible for timely preparation of donor financial reports, participation in budget preparation and control amongst other duties that the Project Accounting team within Finance is responsible for.

She holds an Masters in Finance (Finance and Investments) and a Bachelors of Commerce (Accounting) from the University of Nairobi and is a Certified Public Accountant of Kenya.

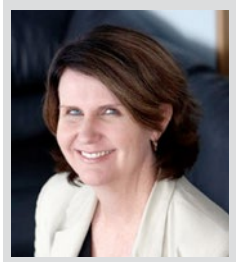
Prior to joining *icipe* Berine was a Program Accountant working for BecA-ILRI Hub and was responsible for preparing donor financial reports, co-ordinating specific project audits, and handling financial aspects of collaborative partners amongst other duties.



Sarah Nduku Munya Ndonge, Research Assistant (Media and Communication) CHIESA project

Sarah Ndonge joined the CHIESA team in February as their Research Assistant (Media and Communication). As Research Assistant (Media and Communication) Sarah will prepare , monitor and manage the project information dissemination activities under the purview of the Project Coordinator.

She holds a Bachelor of Environmental Planning and Management from Kenyatta University and M.A. in Communication from Daystar University. Prior to joining *icipe*, Sarah was a communication officer for Environment Liaison Centre International.



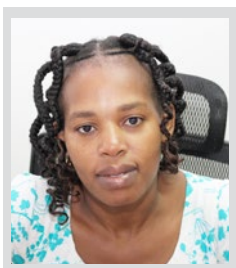
Gabrielle Morrison, Communications Officer, Ethiopia

Gabrielle joined *icipe* in April as a Communications Officer in Ethiopia. She is a volunteer under the Australian Volunteers for International Development programme funded by Australian Aid and will be working with *icipe* for one year.

She holds a Masters in Marketing and Communications, an Honours Degree in Political Science and a Graduate Certificate in Business Administration.

Prior to joining *icipe* Gabrielle was living in Santiago, Chile, working in business development for a UK Company. She has worked as a journalist and media advisor for government and higher education and in business development for the private sector

As a Communications Officer, Gabrielle will look to publicise *icipe*'s work in Ethiopia and also to train staff in engaging with the media and other stakeholders.



Justine Kwamboka Nyamao, Legal Assistant

Justine Kwamboka Nyamao joined *icipe* in January as a Legal Assistant and based at *icipe*'s Duduville campus in Nairobi., Justine will provide legal advice to the Centre's management and staff on all matters pertaining to the institution's staff, property, activities, rights and obligations.

She holds a Masters' degree in International Studies from the University of Nairobi and an LLB (Law) from Moi University. She was admitted to the Bar as an Advocate of the High Court of Kenya on 8th October, 2009.

Prior to joining *icipe* Justine was a Legal Advisor at the Kenya School of Government.



Liana Muthoni Ngotho, Administrative Assistant, Director General's Office

Liana joined *icipe* in March as Administrative Assistant in the Director General's office. Liana will provide much needed administrative support to the busy Office of the Director General in areas such as electronic and hard copy filing, updating of contract documents, photocopying and scanning of documents and receiving of mail among other things.

She holds a Diploma in Business Management from Mount Kenya University and a Diploma in Mass Communication from Kampala International University.

Prior to joining *icipe* Liana was an Administrative Assistant at Flex Communication Ltd (ICT/Car tracking).



Eunice Achieng' Mumbo, Push-Pull Data Management Clerk

Eunice Achieng' Mumbo joined *icipe* as a Data Management Clerk for the Push-Pull Programme and she will be based at *icipe*'s Thomas Odhiambo campus, Mbita. She holds a Bachelors degree in Textile Science and Design from Kenyatta University and Certificates in Information Technology and ACCA from Nairobi Institute of Business Studies. Prior to joining *icipe* Eunice worked as a Data Management Clerk with CIAT in Maseno.

As a Data Management Clerk, Eunice will design data collection tools; organize and coordinate field data collection, organization and collation; oversee day-to-day management of data entry, cleaning, pre-analysis, and archiving; follow up and check data accuracy and completeness, as well as compile data from secondary sources; and supervise data entry in electronic formats, controlling data quality, and helping scientists manage both biological and social science data.

NEW ARPPIS SCHOLARS

Each year *icipe* welcomes postgraduate students under two competitive programmes:

- African Regional Postgraduate Programme in Insect Science (ARPPIS)
- Dissertation Research Internship Programme (DRIP)

We congratulate the following students who were selected for the 2015 programmes, and we look forward to seeing the fruits of their research.



Beatrice T. Nganso (ARPPIS scholar from Cameroon)

Research project: Investigating the Mechanisms of African Honey Bee Tolerance to the Invasive Pest *Varroa* destructor

Supervisor: Dr Ayuka Fombong

During her BSc. in Zoology from the University of Buea in Cameroon, Beatrice carried out an internship on the integrated management of the banana borer weevil with emphasis on the use of insecticides, pheromones and pseudo-stem traps at the African Centre for Research on Banana and Plantain (CARBAP), Njombe, Cameroon.

She then proceeded to the University of Ghana to pursue her M. Phil. in Entomology as an ARPPIS-DAAD scholar, studying "the Diversity and Abundance of Insect Species in the Abiriw and Odumante Sacred Groves and Implications on Conservation in the Eastern Region of Ghana". Since graduating, she has volunteered at the Entomology Department of the Institute of Agricultural Research for Development (IRAD), Ekona in Cameroon.



Edith Chepkorir (ARPPIS scholar from Kenya)

Research project: Field and Laboratory studies of *Aedes* (*Stegomyia*) species to assess Yellow fever and Dengue risk in Northern Kenya

Supervisors: Dr Rosemary Sang and Dr David Tchouassi

Edith holds a Bachelors degree in Biomedical Science and Technology from Egerton University and a Masters degree in medical virology from the Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya.

An aspiring virologist, Edith is experienced in various laboratory techniques and in mosquito vector competence studies. She has authored and co-authored several manuscripts and has presented at various scientific meetings nationally and internationally.

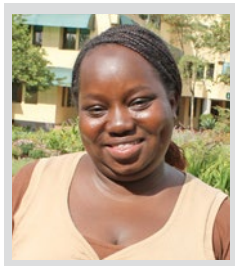


Yvan Ritter Guimapi (ARPPIS scholar from Cameroon)

Research project: Development and implementation of software to optimize field application of biopesticides for the management of arthropod pests

Supervisors: Dr Henri Tonnang and Dr Samira Mohamed

A computer scientist, Ritter studied Mathematics and Computer Science at the University of Dschang, Cameroon and studied for a Masters in Computer Sciences at University of Yaoundé I, Cameroon. He also holds a Higher Technical School Teacher Post Graduate Diploma (DIPET II) from the Higher Technical Teachers Training College (HTTTC) in Bambili, Cameroon. The main objective of his masters research was to design a model which would simulate the dynamics of contagion between the individuals of a population in a multi-site environment and which will be able to inform on the most affected sites through the evolution of a phenomenon.



Selpha Opisa Miller (ARPPIS scholar from Kenya)

Research project: Improving amaranth production through the use of biopesticides and compatible attractants for the management of lepidopterous pests

Supervisors: Dr Sunday Ekesi and Dr Komi Fiaboe

A science teacher by training, Selpha taught various secondary schools in Kenya before joining Maseno University and the Kenya Medical Research Institute for her Master of Science in applied parasitology and vector biology.

She published three papers from her masters research project: "Malacological survey of schistosomiasis and fecal contamination levels of public water sources within informal settlements of Kisumu City".

Selpha also worked with the University of Botswana as a research assistant in the Malaria Indicator and Parasite Survey of 2012.



Komi Mawufe Agbodzavu (ARPPIS scholar from Togo)

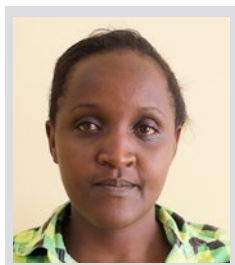
Research project: Bioecology studies and development of IPM technologies against amaranth's Coreid bugs and Lepidopteran defoliators

Supervisors: Dr Sunday Ekesi and Dr Komi Fiaboe

Mawufe holds a bachelors and two masters degrees from the University of Lome, Togo, in agricultural resources management and environmental sciences. His masters degrees both focused on pests of maize.

As a student, he spent time at IITA Benin, and since 2006 he has been a junior scientist at the Togolese National Research Institute (ITRA). He also holds an assistant Lecturer position in the Togolese National Agricultural Training Institute (INFA). During this period, he carried out research on various topics: maize stemborers and their natural enemies; integrated management of cocoa and coffee pests; and fruit flies and their natural enemies.

His PhD project is part of *icipe's* African Indigenous Vegetable Integrated Pest Management project, funded by GIZ.



Teresiah Nyambura Njihia (ARPPIS scholar from Kenya)

Research project: Development of a trapping system for management of Antesia bugs (Heperoptera: Pentatomidae) in coffee using semiochemicals

Supervisors: Dr Régis Babin and Prof Baldwyn Torto

Teresiah comes back to *icipe* after spending time with us as a Masters student and as a volunteer working on coffee pests and various analytical chemistry techniques for volatile collection and analysis.

For her Masters dissertation, Teresiah studied the role played by various coffee semiochemicals in the behaviour of the coffee berry borer, showing how semiochemicals may be exploited to promote sustainable agriculture. She also reported the first repellent ever proven to work against this pest in a coffee field setup. The study was recently published in PLOS ONE: "Spiroacetals in the Colonization Behaviour of the Coffee Berry Borer: A 'Push-Pull' System" (PLOS ONE 9(11), e111316 2014).



Dianah Katiti (DRIP scholar from Uganda)

Research project: The biology of trypanosome morphology, motility and immunology in different host systems

Supervisors: Dr Dan Masiga and Dr Francis McOdimba

Dianah holds a Bachelors degree in Biomedical Laboratory Technology and a Master of Science in Molecular Biology and Biotechnology, both from Makerere University, Uganda. Her masters dissertation focused on animal african trypanosomiasis and associated cytokine profiles in naturally infected cattle in northern Uganda. She has been involved in various trypanosomiasis research projects (both laboratory and field-based), working in African trypanosomiasis surveillance, diagnosis and immunology. She was also involved in evaluation, validation and application of the Loop Mediated Isothermal Amplification (LAMP) test in endemic resource-poor settings in north-western Uganda and Nigeria. ■