



## A Letter from the SGI Chairman

Dear colleagues and funders to *icipipe*,

Over the last one and a half years, the SGI Newsletter has become increasingly popular. What originally started as a quarterly information pack for the *icipipe* donor community has become in reality, a newsletter that is much more widely read—by former alumni of *icipipe*'s capacity building programmes to scientific and development partners of the Centre in Africa and beyond. Taking this into consideration we have decided to rename the newsletter from this issue onwards to '*icipipe quarterly e-bulletin*'. As you will see, with the new name comes a broader thematic perspective, including more stories on scientific and developmental achievements of the Centre. We hope that the new name and format will broaden the readership even further.

This issue covers stories on the new solar powered mosquito trapping system (of the SolarMal project of *icipipe* and Wageningen University), a meeting of the Wellcome Trust-supported THRiVE health research consortium at *icipipe*'s Duduville campus in Nairobi, a reality TV show that features *icipipe*, a major EU celebration in Duduville, news about exciting and cutting-edge science from *icipipe*, and more.

**Enjoy reading and please continue to send us your feedback on this publication.**

**Dr Wolfgang Kasten – GIZ, Chairman SGI**

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## MAJOR FUNDING EVENT

# SolarMal – Development and Evaluation of an Effective Non-toxic Method for Controlling Malaria

In collaboration with Wageningen University, The Netherlands, *icipipe* recently initiated a project, "**Solar power for malaria eradication**", now known as SolarMal. It targets all residents of Rusinga Island, a 44 square km island just off the east coast of Lake Victoria, in western Kenya, principally comprising of a rural community that relies on fishing and agriculture for their sustenance and livelihoods. Rusinga has a diverse topography, ranging from flat areas near the shoreline to a central hill, and from low to medium density vegetation cover. Although malaria is transmitted throughout the year, intensity varies greatly according to season.

The project aims to demonstrate a proof-of-principle for the elimination of malaria from Rusinga Island using the nation-wide adopted strategy, augmented with mass trapping of mosquito vectors.

This project is developed against the backdrop that recent reductions in malaria morbidity and mortality are largely attributed to indoor application of insecticides through insecticide treated bednets (ITNs) and indoor residual spraying (IRS), as well as the use of potent anti-malarial therapies. However, the long-term effectiveness of current vector control strategies is undermined by resistance to insecticides and changes in feeding behaviour, as well as outdoor transmission capacity of malaria vectors. Odour baits that are capable of attracting as many malaria vectors as human subjects do can be exploited to capture and



Rusinga Island

kill mosquitoes without the use of insecticides. Each house on Rusinga Island will be provided with a solar panel that will be used to power a trap to catch malaria-transmitting mosquitoes before they enter houses.



**RECOGNITION**

## **icipe Hosts Major Meeting on Health Research Leadership**



Participants of the THRiVE annual general meeting held at icipe from 18th to 20th June 2012 pose for a group photo

**O**n 18th to 20th June 2012, *icipe* hosted a major meeting bringing together over 80 health researchers and administrators from Kenya, Uganda, Tanzania, Rwanda and the United Kingdom under the auspices of a consortium known as Training of Health Researchers into Vocational Excellence in East Africa (THRiVE). The THRiVE consortium is led by Makerere University, Uganda; and in addition to *icipe*, it partners with eight other institutions (<http://www.thrive.or.ug>). THRiVE is one of seven partnerships initiated in 2009 through a grant of UK£30 million from the Wellcome Trust under the African Institutions Initiative, which aims at developing leadership and excellence amongst African professionals and institutions while reversing the trend of North-driven health research agendas in the South.

In his remarks at the official opening of the meeting, Prof. Shaukat Abdulrazak, Secretary/CEO, Kenya National Council of Science and Technology (NCST), noted that achieving MDGs 4, 5 and 6 is a key challenge as vector-borne related diseases remain a significant public health problem throughout SSA. Prof. Abdulrazak noted that in its quest to provide quality advice, coordination and promotion of research, science, technology and innovation (ST&I), NCST is committed to partnering with organisations like THRiVE and the East African Community to initiate public-private partnerships for sustainable research and ring fence best brains in ST&I. He noted that there exists goodwill in the Kenyan Government to dialogue with policy makers on ST&I and NCST readily advises the Government on any issues necessary for proper co-ordination and economic development.

Prof. Nelson Sewankambo, Director of the THRiVE Consortium, said that the aim of the collaboration was to build a critical mass of indigenous scientists and researchers and support them in achieving academic excellence in health sciences research. THRiVE is offering outstanding young researchers, including undergraduate interns, post-graduate students and post-doctoral fellows, the opportunity to be mentored by committed teams of scientific advisors from all collaborating institutions. (More information at <http://www.thrive.or.ug/>)

*icipe* is a key beneficiary of the excellent scientific R&D opportunities that exist within THRiVE to develop and empower academic institutions for full participation in the March of Science. Notably, *icipe* participates in THRiVE's research and training, networking, institutional development, support systems and research resources. (More information at: <http://thrive.icipe.org/>)

The meeting provided an outstanding forum for networking with scientific and administrative staff that included MSc students and PhD and post-doctoral fellows supported by the consortium, their supervisors, partners in research and institutional research leaders as well as consortium members, the consortium coordinator, administrator, and IT and financial officers. The attendees shared experiences, discussed challenges and solutions, and evaluated the consortium's progress.



In the centre, front row representatives from Wellcome Trust, Dr Daphne Cobb and RAND Europe, Dr Stephanie Diepeveen keenly follow the proceedings



From left is Dr Daniel Masiga THRiVE icipe PI, Prof. Nelson Sewankambo, THRiVE Director and Prof. Shaukat Abdulrazak, Secretary/Chief Executive Officer, National Council for Science & Technology



## IMPORTANT NEW PARTNERSHIP

### Mediae Company and icipe sign a Production Agreement to feature icipe technologies on 'Shamba Shape Up', a television production

Mediae Executive Producer and Director, David Campbell and icipe Director of Finance and Administration, Roger Finan signed a Production Agreement on Thursday, 5th July 2012 at icipe's Duduville Campus in Nairobi.

Mediae, a media production company for education and development, has created a television production known as *Shamba Shape Up*. This is a practical makeover-style television series aimed at farmers and is designed to deliver effective agricultural and livelihoods research-into-use to the widest possible audience in practical and accessible forms that are relevant, appropriate and up-to-date, to raise the living standards and incomes for an estimated 7 to 11 million smallholder farming families in East Africa, and to benefit research organisations.

*Shamba Shape Up* will feature seven lead episodes derived from three of icipe's flagship programmes; namely, Push-Pull Habitat Management, African Fruit Fly and Commercial Insects. icipe scientists will provide proven technical information to the production company for promotional purposes, and raise awareness, create demand and increase adoption of their developed technologies and practices.



Push-Pull Habitat Management Programme: Napier grass border, intercropped to deter maize stem borers, is an icipe technology that will be covered in the series

## MAJOR INSTITUTIONAL EVENT

### icipe hosts Europe Day 2012

On 9th May 2012, icipe was the host of Europe Day 2012, organised by the European Union (EU) Delegation to the Republic of Kenya. This year's event was designed to celebrate 'Research for Development' and create a better understanding of the EU, and featured a science fair at icipe's Duduville Campus in Nairobi in which several international centres of excellence, research institutes, think tanks, non-governmental organisations and the embassies and consulates of EU Member States in Kenya took part to showcase some of their work.

icipe was honoured to welcome the EU delegates to icipe on the auspicious event. The delegates were led by Mr Lodewijk Briët, the Head of the EU Delegation in Kenya, Mr Georges-Marc André, the EU Representative to Somalia and the Head of the European Investment Bank Regional Representation, Mr Kurt Simonsen.



Delegates who attended the Europe Day follow the day's proceedings



Speech by Ambassador Lodewijk Briët on the occasion of Europe Day (9 May 2012) Nairobi, Kenya

Europe Day events included research and development (R&D) exhibitions, speeches and ceremonial events related to the European Union or to EU Member States.

During the occasion, a total of 12 research institutes including icipe proudly showcased their R&D activities to an estimated audience of over 500 visitors. icipe was truly delighted to be the partner hosting the memorable EU Day occasion. (More information at <http://www.icipe.org/news/597-europe-day-held-at-icipe-at-a-reception-celebrating-research-for-development.html>)



## IMPORTANT RESEARCH FINDING

### Livestock Bacteria Origin Correlates with Livestock Domestication!

Members of the 'Mycoplasma mycoides cluster' affect livestock in Africa and impact the agricultural sector. They also represent a threat to developed countries. A team of researchers from *icipe* and ILRI, together with other international partners, has elucidated the origin of the 'Mycoplasma mycoides cluster'. The study, published in May 2012 in the Public Library of Science [Fischer et al. 2012 *PLoS One* 7(4): e36150 <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0036150>], suggests that domestication was likely the event triggering the spread of the bacteria in livestock. The bacteria of the genus *Mycoplasma* are directly transmitted; therefore, increase in density of animals increases the chances of transmission and maintenance of the pathogens in the herd.

More information at <http://www.icipe.org/news/594-livestock-bacteria-are-as-old-as-the-livestock-they-kill.html>



## PRIVATE SECTOR – *icipe* INVOLVEMENT

### *icipe*'s Eco-friendly Tsetse Repellent Collar Showcased to Stakeholders

Recently, *icipe* showcased the tsetse repellent technology that it has been developing with funding from the European Commission (EC) to over 70 participants representing 20 different national and international stakeholders at Shimba Hills, at the Kenyan coast. From 28th to 29th June 2012, stakeholders were taken to the outskirts of Shimba Hills where the Centre has protected nearly 2000 animals with repellent collars to see how the technology was positively affecting the incomes of the community.

**Farmers' perceptions of the repellent collars:** Participating farmers reported that the repellent collars (which contain the waterbuck repellent blend or the synthetic repellent that are both *icipe* patents), were very effective and their cattle were now more settled when grazing and were also grazing much closer to the park fence than before without being disturbed by the flies. Additionally, they were able to graze their animals early in the morning and late in the evening when flies are most active. They had also stopped lighting fires to smoke away the flies. Drug use (trypanocides) had declined considerably. Their animals had gained weight significantly, which had not only resulted in animals fetching more selling prices but also in a three times daily increase in area ploughed by the protected bulls. The milk yields had also doubled.

In attendance at the function were *icipe*'s Director of Finance and Administration Mr Roger Finan and the Principal Investigator of the project, Dr Rajinder Saini. The Minister for Environment and Mineral Resources and Area MP Hon. Amb. Chirau Ali Mwakwere, who attended the meeting, lauded *icipe* for the success of the project and congratulated Dr Saini for the innovation that had resulted in the repellent collars. The Minister also praised the EU [in attendance were Mr Bernard Rey, Head of Operations EU Delegation to Kenya and the Programme Manager at the EU Mr Steve Wathome] for funding the project and urged them to continue supporting such projects that improve livelihoods in the rural areas of Kenya. He added that livestock owners around Shimba Hills had given up keeping high-grade cattle a long time ago due to the tsetse menace, and that such developments would take the rural people out of the poverty trap. He assured the audience that he would do everything in his power to ensure that the technology gets into the users hands.



Farmers participating in the project field day (Inset shows a cow with repellent collar.)

In an interview, the *icipe* Director General, Prof. Christian Borgemeister noted that the tsetse repellent collar entailed huge investment in time and money and had yielded substantial benefits as was witnessed during the visit to the smallholder livestock keepers of Shimba Hills. He said: "It takes dedicated researchers, and competent partners and donors who are willing to take a risk and engage communities to jointly develop something like the repellent tsetse collar."

**Eco-friendly collar commercialisation:** The prototype collars need to be mass-produced into non-metallic, cheap, affordable and easy-to-use commercial products, an endeavour that is beyond the scope of *icipe*'s laboratories. *icipe* is, however, looking for public-private partnerships for development of the collars for much wider validation, up-scaling and up-take.

[Click here for more information](#)