The Improper Scientist

The first quarter of the year is generally packed with research grant reporting or funding applications. I am sure many of you are feeling as if the year should be ending. And then add to it those of us who have teaching blocks. One thing we share is a focus on the academic project in our individual higher education institutions. In Africa we have had tumultuous events during the past two years with student or staff protests across different African universities. Take comfort knowing that challenges in higher education are global issues that impact every scientist in part due to financial constraints and ever reducing budgets. It certainly does not help when politicians in resource-limited environments promote free education without considering the implications.

Despite all the apparent gloom, we have much to be excited about during these past three months since our last Improper Scientist issue. I hope you did not miss a landmark event in January 2018 when 23 African countries launched phase one of the Single African Air Transport Market at the African Union Summit, 30 years after the initial proposal by the Yamoussoukro Declaration of 1988 (feels like waiting for African presidents to step down or be deposed). This single market promises enhanced connectivity between African countries, reduction in flight ticket fares and more. Does this mean that I can start to imagine an era where I will not have to rush with visa applications to attend scientific meetings in African countries and deplete my research budget on exorbitant travel costs?

Unfortunately it is taking even longer for women to be recognized as equals in society. At the time of publishing this issue, we celebrated international women's day. The impact of women in society is underestimated yet we see the impact women are having across Africa. I wish to salute all women and in particular women in science as they provide the much needed leadership across Africa and beyond.

One of the events that stood out for our computational biology discipline is Women in Data Science 2018 (WiDS2018) held at Stanford University March 2018. Continuing in that spirit, look out for articles each quarter as we feature African women scientists making an impact. Feel free to send us your suggestions of scientists you would like to see profiled each quarter (editorial@asbcb.org).

Alan Christoffels
Editor (@alangchris)

SAVE THE DATE!

- 3-5 April 2018: GalaxyAfrica meeting at SANBI-University of the Western Cape in Cape Town

- 9-14 September 2018: Deep Learning Indaba.2018: Stellenbosch University, South Africa http://www.deeplearningindaba.com/
Application deadline: 30 April 2018

- SciDataCon 2018 will take place in Botswana and will address the theme of 'The Digital Frontiers of Global Science'
https://www.scidatacon.org/IDW2018/
Abstracts submission deadline: April 30th, 2018

- AGNES Mobility Grant (Intra-Africa) for Junior Researchers 2018. On behalf of the President of African-German Network of Excellence in Science (AGNES), TWAS-ROSSA is pleased to announce that the Call for Applications for their funding programme: the 'AGNES Intra-Africa Mobility Grant for Junior Researchers' is now open. Closing date is 6 April 2018. Details are at:

  http://www.twas-rossa.org.za/news/item/273-2018-call-for-applications-agnes-mobility-grant-intra-africa-for-junior-researchers-supported-by-bmbf-and-avh

- 26-28th September 2018: GET Africa: 4th African Conference on Emerging Infectious Diseases and Biosecurity (www.getafrica.org).

- 5-8 November 2018: International Data Week in Gaborone, Botswana (http://www.scidatacon.org/conference/IDW2018/about/

Training

Eastern Africa Network of Bioinformatics Training (EANBiT)

The Eastern Africa Network for Bioinformatics Training (EANBiT) is a collaborative network of three universities and four research institutes in Kenya, Tanzania and Uganda supported by the Fogarty International Center of the National Institutes of Health under the H3Africa programme. The H3Africa programme was initiated to facilitate contemporary research approach to the study of genomics and environmental determinants of common diseases with the goal of improving the health of African populations and enable significant African participation. In line with this objective, EANBiT's core objective is therefore to strengthen the application of Bioinformatics in Biomedical Research through individual training, research mentorship and enhancing institutional capacity in East and Central Africa.

The specific objectives of the network include:
1. To develop a collaborative platform for promoting and strengthening bioinformatics training and career development in universities and research institutes in Eastern Africa.
2. Develop a harmonized bioinformatics curriculum at Masters level and support its adoption in partner universities.
3. Generate a cohort of highly trained bioinformatics Masters graduates who can lead analysis of data generated by H3Africa and other projects.

EANBiT Kickoff Meeting at ICIPE on 25 September 2017 pictured from left to right: Annah Njui - ICIPE (Project Management Office), David Mburu - Pwani University, Sam Kinyanjui - KEMRI Wellcome Trust, Joyce Njuguna - BecA-ILRI Hub, Jandouwe Villinger - icipe, John Kitayimbwa - Makerere University, Santie de Villiers - Pwani University, Sonal Henson - ICIPE, Daniel Masiga - ICIPE

Expected outcomes and Public Health impact:
The network expects to progressively develop highly qualified bioinformaticians with the knowledge and skills to contribute analysis of genomic, genetic and environmental data that are relevant to health in Eastern Africa, and to have equitable collaborations with peers in Africa and elsewhere. The network plans to train 12 participants each year, for at least five years, at the Masters level. The expectation is that graduates from this program will lead research, and take part in analysis of complex datasets, and train the next generation of bioinformaticians.

Institutions involved include:

International Centre of Insect Physiology& Ecology (ICIPE)
Pwani University
Makerere University
Uganda Virus Research Institute
KEMRI Wellcome Trust Research Programme
University of Dar es Salaam

Residential training curriculum development meeting held at Pwani University 15 -16 February 2018 pictured here:

Jonathan Kayondo - UVRI, Jean-Baka Domelevo Entfellner - BecA-ILRI Hub, Karen Wambui - Project Manager, Audrey Mbogho - Pwani University, Rosaline Macharia - University of Nairobi & ICIPE, David Mburu - Pwani University, Daniel Masiga - ICIPE

Biobanking and Biosecurity

Bridging biobanking and biomedical research across Europe and Africa (B3Africa) - Jamboree

In 2014 the European Union funded the B3Africa project with members spanning 9 countries (www.b3africa.org). During the course of nearly three years, the members of the consortium focused on developing and integrating an opensource biobank informatics solution that included mobile data collection (Azizi), LIMS (Baobab), experimental management system (EMS) and bioinformatics tools (Galaksio). These tools were packaged into what is called Eb3kit (demo.bibbox.org).

In February 2018, the B3Africa consortium held its annual jamboree (last for this funding cycle) in Nairobi, Kenya. Software developers spent the time completing an API for importing mobile data into Baobab LIMS, and configuring the eb3kit for standalone operations. The three day jamboree was followed by a 2-day stakeholder engagement in Naivasha Lodge, Kenya.

Members of the B3 Africa Work Package 1

B3 Africa's Software Developers and members of the Education and Dissemination team

B3Africa Stakeholder Meeting
Sustainability of the B3Africa was the over-riding theme at this year's first of two stakeholder engagement events. With the completion of the EU-funded project approaching in July 2018, key stakeholders from South Africa, Kenya and Uganda participated in face-to-face discussion about various funding models that could ensure the continuation of the project to support biobanking activities. The meeting started with a progress update on each of the B3Africa packages. Participants were given opportunity to engage with each work package team.

The meeting concluded with a commitment to create a working group among African and European stakeholders to develop a strategy for extension funding so that the project can continue.

B3 Africa Stakeholders Meeting
Naivasha, Kenya 8th - 9th February 2018

Biobank Assessment and LIMS training in Abidjan, Cote d'Ivoire
Upon invitation from ORGANISATION OUEST AFRICAINE DE LA SANTE, a team of 4 African scientists visited Pasteur Institute Cote d'Ivoire Biobank to assess its readiness to scale its operation as a regional entity. Four members comprising Dr Carmen Swanepoel, Professor Alan Christoffels, Ms Petronilla Ozumba and Professor Akin Abayomi spent a week in Abidjan assessing the capacity of the Cote d'Ivoire biobank's existing infrastructure and procedures against a set of international performance matrices and best practices (ISBER best practices). Part of the week was also devoted to reviewing their informatics workflows and strategizing the customization of Baobab LIMS (www.baobablims.org) for their local use.

The Cote d'Ivoire biobank has established an impressive collection of biological specimens in Abidjan and housed in a state of the art cryopreservation facility. Plans are now in place for follow up visits to initiate collaborative projects.

Snapshots of the Cote d'Ivoire biobank and Baobab LIMS

Cosi corner
Community of
Special Interest Groups

Last quarter we launched the community of special interest groups at the ASBCB conference in Entebbe in October 2017. It is hard work for individuals to rally support and sustain the momentum felt at the Entebbe conference. I would urge all those who are looking for a smaller community of discipline-specific scientists to get involved in the COSIs. Here is a reminder of the groups that were initiated and the contact details.

Structural Biology and Drug design (structuralbio@asbcb.org)
Metagenomics group (metagenomics@asbcb.org)
Pathogens group (pathogen@asbcb.org)
Population genomics (popgen@asbcb.org)
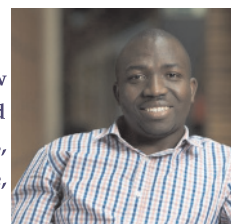System administration (sysadmin@asbcb.org)

President:

Alia Benkahla
Lab of Bioinformatics,
BioMathematics and
BioStatistics,
Institute Pasteur of Tunis

Vice President:

Segun Fatumo
Research Fellow
in Global Health and
Population Sciences,
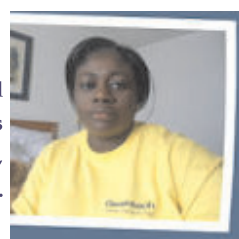Department of Medicine,
University of Cambridge

Secretary:

Amel Ghouila
Laboratory of Transmission,
Control and Immunobiology,
of Infections (LTCII),
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Marion Adebiyi
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Information Sciences
and CUBRe,
Covenant University.
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Governing Council members:

Natasha Wood
Computational Biology Group,
Department of Integrative
Biomedical Sciences,
University of Cape Town

Alan Christoffels
South African National
Bioinformatics Institute,
University of the
Western Cape

Vision

To facilitate the development of African scientists
as leaders in bioinformatics and computational biology

Mission

To be a scholarly society dedicated to advancing,
developing and promoting bioinformatics and
computational biology in Africa.

Serve a global membership through distribution of valuable
information about training, education, employment
and relevant news from related fields.

Encourage the application of bioinformatics in
Africa to improve the livelihood of people.

Contributors

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We welcome volunteers who wish to contribute to the following areas of the magazine:

*Editorial Team
*Layout and Design – we are looking for individual who wish to exercise
                    their creativity in improving the look at feel of the
                    magazine
*Articles   – contributions related to any of the themes
                    outlined in the magazine.
*French translators

Please submit all contributions to

contact@asbcb.org