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**Call for participants to workshop on
Bioinformatics and Wheat Genomics III**

**SA coordinator [Dr Renée Prins]:**

**UK coordinator [Dr Diane G.O. Saunders]:**

**Discipline: Bioinformatics**

**Dates and venue: 24 – 28 February 2020; Worcester, SOUTH AFRICA**

Early in 2018, the **Science and Innovation Network (South Africa)** supported a team of five South Africans working in the wheat industry to visit leading wheat research centres in the UK. This was an attempt to support the revitalisation of the wheat industry in SA by creating an opportunity to establish long-term collaborations and links between these centres of excellence and scientists in SA. As a result of the visit, a serious need for training opportunities that will provide bioinformatics knowledge with a lasting impact, and the uptake of these skills by African researchers, was identified by the collective as a priority need to address. The UK Science and Innovation Network, South Africa (UK SIN) has therefore decided to support efforts to host follow-up workshops. The current workshop builds on knowledge gained from two previous workshops, initial exposure to the bioinformatics field provided by the 2017 Newton Fund Researchers Link Workshop (Bioinformatics and Wheat Genomics) and a second workshop supported by the UK SIN that was held in February 2019. For the 2020 workshop, Stellenbosch University joined forces with UK SIN in co-hosting the workshop.

**Current workshop aims:**

Expertise in the field of bioinformatics has become indispensable in most genetic or genomic research and applied approaches. This need has exceeded the level and rate at which plant genomics scientists have been trained in bioinformatics in SA. This workshop aims to provide much-needed hands-on training in bioinformatics, wheat genomics and sequencing technologies by leading UK experts that are highly competent researchers and experienced trainers in these fields. Dr Burkhard Steuernagel (John Innes Centre, UK) and Dr Robert Davey (Earlham Institute, UK), will join Dr Diane Saunders (John Innes Centre, UK) as workshop trainers. The workshop will be designed at an intermediate level around a series of practical exercises to allow the participants (South African citizens or African citizen’s based in South Africa at the time of the workshop) to explore different types of bioinformatics analyses. Prior basic knowledge in bioinformatics is essential and all participants **MUST** undertake a series of self-directed pre-workshop exercises to ensure all are familiar with these basic concepts. These exercises will be sent to successful participants when notified regarding acceptance on the course. This will enable the workshop to focus on developing more advanced bioinformatic skills and exploring advanced bioinformatic analysis. The interaction with participants will also allow SA academia to gain some insight into the needs from the local agricultural science sector’s needs.

**Workshop costs:**

The British High Commission and Stellenbosch University will cover the costs related to the actual hosting of the workshop (trainers, workshop venue, tea and lunches) and no registration fee will be charged. *Successful applicants will be responsible for ALL the necessary arrangements and costs related to their own travel and accommodation including visa costs and medical insurance*. The British High Commission, Stellenbosch University and workshop coordinators accept no responsibility for any problems which may occur when the participants are attending the workshop.

**Application and Deadline:**

The application form below must be completed and submitted to wheatgenomics@jic.ac.uk by the deadline of **the 15th of November 2019 (12h00 UK time)**.

**Eligibility Criteria:**

* Applications must be submitted using indicated application form.
* Applications must be submitted before/on the above deadline.(No applications will be considered beyond this date)
* All participants are required to bring a laptop with a Wi-Fi card to enable participation in hands-on tutorials (successful applicants will be notified of any specifications the hardware should meet and may be required to download software as requested via email).
* All participants **MUST** commit to undertaking pre-workshop self-directed exercises.
* Please note, participants are expected to attend all sessions of the workshop.

**Quality Assessment of applications**

**Twenty-five places** are available

* Overall demonstration of sincere aspiration and ability to incorporate bioinformatics’ skill set in research and applied work on a routine basis to enhance crop genetics and breeding in Africa.
* Ability and confidence to actively pursue opportunities to transfer the skills learnt at this workshop to a broader group of scientists in Africa.

**Selection Procedure:**

* Eligibility check
* Quality assessment

The application forms will be scored independently by the two coordinators (SA, UK), two additional trainers (UK) and two independent scientists (SA) that are not involved in the workshop’s organisation.

**Notification of results:**

Applicants will be notified by email by the 15th of December 2019. Contact details for accommodation and shuttle services will be included with the notification. No visa application support letters will be provided and all applicants should already have the appropriate documentation to be in South Africa at the time of the workshop.

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**Application Form**

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| **1. Applicant**  |
| Name and title  |   |
| Position and institution  |  |
| Postal address  |   |
| Email  |   |
| Phone number  |   |
| **2. Which crops do you work with?** |
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| **3. What type of data do you use?** |
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| **4. What experience do you have in the field of Bioinformatics? Do not exceed 100 words.** |
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| **5. Did you attend the previous Bioinformatics and Wheat Genomics workshops held in South Africa? Do not exceed 100 words.** |
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| **6. What do you hope to learn by the end of the course? Do not exceed 100 words.** |
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| **7. Order the follow topics based on your interests, with those you are most interested to learn given first: 1. Advanced Linux 2. BLAST 3. Introduction to R studio 4. Exome capture 5. RNAseq gene expression analysis 6. Comparative analysis to explore multiple reference genomes.** |
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| **7. How will your attendance at the workshop a) advance your research and b) provide brief motivation why you are aligned to the workshop objective. Do not exceed 250 words.** |
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| **8. How will you disperse the knowledge you gain at the workshop to a wider network of scientists?** |
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| **9. Workshops will take place in English as standard. Please indicate your ability to work and communicate in English (Note, translators will not be provided)**  |
| Native speaker  |  | Good  |  |
| Excellent  |    | Need support  |    |
| **10.** **Brief CV (academic career, publications, markers of esteem, and any other relevant information) maximum ¾ page**.  |
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Please submit completed applications to wheatgenomics@jic.ac.uk by the deadline of15 November 2019(12h00 UK time).
Please address General enquiries to Renée Prins (**cengen@cengen.co.za****;** CenGen & Stellenbosch University)