

Göttingen, 20.07.2021

Dear CiBreed community,

the Center for Integrated Breeding Research (CiBreed) is a scientific center at the University of Göttingen established to bridge the gap between plant and animal breeding.

Today, you receive this CiBreed newsletter because we would like to inform you about the latest developments at the Center for Integrated Breeding Research.

CiBreed public relations

With the aim of strengthening the external impact and visibility of the Center, we have decided to take different steps: On the one hand, we would like to outline the profile of the Center more clearly and also present

the work of the Center and its members more strongly. Therefore, the Executive Board, in cooperation with the core professors, has developed a mission statement that serves as a profile description:



Our mission is to improve agriculture and forestry and advance scientific discovery by enabling research and teaching across all branches of crop, tree, and animal breeding.

We strive to achieve this by building a strong and collaborative community of scientists and experts representing public and private institutions, all career stages, and using synergies across all branches of breeding.

Insights into research

Breeding programs from the construction kit

Henner Simianer, Lisa Büttgen, Amudha Ganesan & Torsten Pook (Animal Breeding and Genetics Group, University Göttingen)

Breeding programs are complex processes that are planned and implemented by breeding associations or breeding companies with the aim of achieving long-term breeding progress in breeding populations towards a desired breeding goal. We were able to show that even the most complex breeding programs can be assembled from surprisingly few elementary modules, as in a construction kit.

On this basis, the R package MoBPS (for Modular Breeding Program Simulator) was developed, with which arbitrarily complex

breeding programs can be displayed and simulated. A graphical user interface was provided at www.mobps.de to allow intuitive input and efficient evaluation of breeding programs. The approach developed in this way is used intensively in research and teaching, but also in cooperation with breeding companies.

[publications](#)



Model and image: Rasmus Hanf

Events

We are happy to announce the [3rd CiBreed Fall Workshop on October 14-15, 2021!](#)

The workshop will be online and registration is free.

Following our mission to bring together expertise from plant and animal breeding, we are trying to assemble a program looking at important topics from different perspectives. The opening session will be entitled "Ethical considerations in breeding" (confirmed speaker: Peter Sandøe, University of Copenhagen). It will

encompass invited talks from several disciplines and cover topics related to modern biotechnologies such as genome editing, breeding goals in animals and implications of the Nagoya treaty (confirmed speaker: Amber Hartman Scholz, Leibniz-Institut DSMZ, Jan Grossarth, LMU München). We are really looking forward to lively discussions! Other sessions will be on hybrid breeding, machine learning (confirmed speaker: Jose Crossa, CIMMYT) and breeding programs.

Teaching/ Master programs

Integrated Plant and Animal Breeding (iPAB)

The iPAB program is a highly interdisciplinary M.Sc. program offering international students the opportunity to combine animal and plant breeding by applying quantitative and molecular genetics, biotechnology, and breeding informatics and deepen their knowledge during a six-week internship in industry. Students from all over the world are coming to Göttingen to learn important skills for an international career in breeding.

Due to Corona, the last semesters have posed us with several challenges demanding a high degree of flexibility and initiative of both teachers and students. Gradually, however, more students are arriving to Göttingen and even students who still could not make it to Göttingen have been able to successfully pass exams. The number of applications for iPAB has dropped somewhat, but with about 80 applications to be evaluated, it is still at a gratifyingly high level. So, we are looking forward to the new cohort in October this year and hope that their arrival will be reasonably smooth.

European Masters in Animal Breeding and Genetics (EMABG)

The EMABG master's program is a joint program of the Universities of Goettingen, Wageningen, Vienna, Uppsala, Ås, and Paris co-funded by the Erasmus+ Programme of the European Union. International students learn to answer the scientific, practical, and societal challenges of animal breeding and genetics.

Ten EMABG students arrived in Göttingen for the winter semester 2020/21 before the start of the lectures. Most of them come from different countries in Africa, Asia, or Latin America. Despite the Corona situation, eight of the students were able to do their internships, which took place online, while two students whose internships had to be canceled were offered a scientific project with Prof. Tetens. To ease the constrained social situation of our students due to the Corona regulations, social activities such as online games and an online cooking class were organized. For the winter semester 2021/22 eleven or twelve students (majority from Africa and Asia) will be admitted to the University of Göttingen.

Personalia

A word from Prof. Timothy Beissinger, the new managing director since December 1st, 2020

"It is with great pleasure that I take over as managing director for CiBreed. Prof. Simianer's leadership from the founding of the center until now has left me with a strong example to follow. I look forward to working with all center members and partners in the interest of bringing together scientists from all sectors of crop, tree, and animal breeding for a brighter future. In the first six months of my term of office, we have already been able to implement many new ideas and develop new ones. I would like to inform you about this today".

New employee and substitution of the coordination position

Not only the person of the managing director of the center has changed, but we have also been able to gain personnel in the management. Krista Belaed supports the management and the center coordination as an administrative employee (25%) since February 2021.



Tim Beissinger and Henner Simianer

From July 2021, Dr. Birgit Zumbach will substitute the coordination position, as Dr. Liane Schulz-Streeck will be on parental leave until the end of 2022.



Birgit Zumbach

Dr. Birgit Zumbach studied agriculture at the Technical University of Munich. She obtained her PhD in the field of tropical animal breeding at Humboldt University in Berlin on the estimation of epistatic effects in guinea pigs in Bolivia and the optimization of breeding systems considering local conditions. She remained in the international/tropical context as a postdoctoral fellow at the Institute of Animal Breeding in the Tropics and Subtropics at Humboldt University Berlin, and later at various research institutions/breeding companies in the USA, Norway, Sweden and the Netherlands. At the University of Göttingen, where she joined the Department of Animal Breeding and Genetics in May 2019, she conducts research on the genetic background of tail biting in pigs and is active in teaching.

A new CiBreed Communication Team is born!

Furthermore, a dedicated team of PhD and Master students of CiBreed has formed to redevelop and steer CiBreed Communication.

The CiBreed Communication Team (CiCom) was founded in February 2021 by a group of students, junior and senior researchers from different CiBreed research groups i.e., animal, plant and forest breeding and genetics. The purpose of the team is to promote research collaborations between the multidisciplinary research groups

affiliated with the CiBreed, and to attract and inform external audience on the multidisciplinary research work conducted at the CiBreed center.

Within the CiBreed research groups, we promote interactions and collaborative work by identifying and conveying transversal (diverse) research topics. This could represent a key asset to improve the quality and quantity of the scientific papers that we publish at the CiBreed.

Social media have grown to become powerful communication and information sharing platforms globally. Therefore, social media can help the CiBreed reach larger audiences and enhance the visibility of our research work, including our scientific publications. Hence, as the CiBreed communication team we use different communication platforms,

beyond the internal emails, such as Twitter, Instagram, the CiBreed blog, LinkedIn, and the University Newspaper to communicate our research work, but also to attract new students, researchers, and industry partners for new projects. In addition, these platforms can create great opportunities for students enrolled in our Master programs to get professional contacts for internships, theses, or jobs.

We welcome ideas related to the development of a successful Communication CiBreed Team! We also invite anyone interested in joining our team and/or to know more about our work to contact us.

With kind regards,

The CiBreed Communication Team



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Call for members!

Post-Docs, PhDs & students
Please contact us if you are
interested!

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