

## Press release

Heinrich-Heine-Universität Düsseldorf

Dr.rer.nat. Arne Claussen

02/27/2020

<http://idw-online.de/en/news733748>



Research projects

Biology, Nutrition / healthcare / nursing, Oceanology / climate, Zoology / agricultural and forest sciences  
transregional, national

## Joining forces to fighting rice diseases in India

**Biology: HHU signs Memorandum of Understanding** Each year, bacterial and fungal diseases in rice lead to devastating losses for Asia's agricultural sector. Researchers working with Prof. Dr. Wolf B. Frommer at Heinrich Heine University Düsseldorf (HHU) and the Indian Council of Agricultural Research (ICAR) in New Delhi plan to work together closely in this area. They have signed a Memorandum of Understanding with the aim of protecting in particular smallholder farmers in India from rice diseases and their consequences.

A large proportion of India's farmers live from growing rice, and 70% of them have farms that average smaller than 0.4 hectares – that's roughly half the size of a football field. Even a single infection can directly endanger their livelihood. Also, in many parts of Asia diseases like bacterial blight in rice are countered by spraying antibiotics and extremely dangerous pesticides that are not approved here in Europe. This means that we urgently need efficient solutions to safeguard the livelihood and the health of the farmers in India.

Prof. Dr. Wolf B. Frommer's working group at HHU has been researching for years on strategies and measures to combat such plant diseases. Together with researchers from the Philippines, Colombia, France and the US, they have found ways to overcome at least one of the diseases, bacterial blight in rice, efficiently and without the use of pesticides. Now these researchers want to make their tools accessible to researchers in Asia and Africa in particular. They also want to help countries dependent on rice-growing by making their resistant rice varieties available to smallholder farmers.

The Memorandum of Understanding that has now been signed opens up new avenues for applying these findings in India too, a country where huge swathes of land are affected by the disease. Researchers in India are world leaders in resistance research and in developing resistant rice varieties. The methods and materials developed in India complement the findings from HHU's research to date. The new partner, ICAR, pools India's research and development competency in relation to rice. It is an independent organisation within the Indian Ministry for Agriculture & Farmers Welfare, headquartered in New Delhi. The organisation encompasses 101 research institutes and 71 agricultural universities.

HHU and ICAR have agreed to carry out joint research and development projects, where HHU will learn from the vast experience of ICAR. In return, HHU will make its knowledge and technology available to ICAR.

The collaboration includes an exchange programme for students and scientists that is already in operation. Research findings will be published jointly, and agreement has also been reached on how the research findings will be marketed to benefit smallholder farmers in India. Prof. Frommer had this to say: "For me and my colleagues, this collaboration is a significant step that will hopefully allow us to attempt – together with the scientists and growers at ICAR – to use fundamental discoveries to help smallholder farmers in India."

HHU President Prof. Dr. Anja Steinbeck, who signed the Memorandum of Understanding on behalf of HHU on 26 February 2020, said: "This collaboration is a significant milestone for our university. It opens the door to a close working

relationship. It will see us merge competencies in order to tackle essential challenges. I am happy to know that HHU researchers can make an important contribution to providing practical help to India's population."

URL for press release: <http://www.healthycrops.org>



HHU President Prof. Dr. Anja Steinbeck signs the Memorandum of Understanding on behalf of HHU in the presence of Prof. Dr. Wolf B. Frommer.  
HHU / Jochen Müller



Prof. Frommer's associate, Dr. Sarah M. Schmidt (fourth from left) accepts the document signed by the Indian partners at ICAR in New Delhi; third from left Dr. Mohapatra, Director General ICAR.  
HHU / Sarah M. Schmidt