

MEDIA INFORMATION

Leibniz Institute for Farm Animal Biology

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LEIBNIZ INSTITUTE
FOR FARM ANIMAL BIOLOGY

Through India and the USA to Dummerstorf – Humboldt research fellow wishes to improve milk production in the land of the holy cows

FBN international: 33 scientists from all over the world are researching at the Leibniz Institute for Farm Animal Biology

More milk is produced in the homeland of Dr. Vijay Baddela (photo), India, than in any other country in the world. However there is a taboo. Slaughtering cows, which are revered in India as sacred animals, is strictly forbidden. Apart from that, the milk production in India is not considered as very efficient especially due to small-scale farming structures, which is particularly problematic, in view of the climate-damaging methane production. The 29-year-old would like to make some changes to this. As a Humboldt Research Fellow, he will research for two years at the Institute of Reproductive Biology in the Leibniz Institute for Farm Animal Biology (FBN) in Dummerstorf.

A total of 33 foreign researchers from all continents and 21 nations* are doing research currently at the FBN.

Dr. Vijay Baddela has benefited from a long-term cooperation, which FBN has with the ICAR National Dairy Research Institute (NDRI) in Karnal (India), through which the Indian biochemist has come into contact with the researchers in Dummerstorf. The experts at the Institute of Reproductive Biology have been studying the performance of ruminants under heat stress conditions, for many years. This has already led to several extended research stays in India. Dr. Vijay Baddela has studied biochemistry and animal physiology at the university in Kurnool, South India, which is his place of birth and in Karnal, North India. After his graduation, he worked as a research assistant at the ICAR Institute as well at the Penn State University in Pennsylvania (USA). Apart from English, Hindi, and Telugu he even speaks a bit of German.

Hot on the trail of reproductive problems in cows

Dr. Vijay Baddela will mainly take care of a widespread phenomenon in milk production during the next two years. “Dairy cows have a problem of becoming pregnant again long after the birth of a calf”, explained Dr. Jens Vanselow, Head of the Institute of Reproductive Biology.

“Due to the high yield of milk, there is a mobilization of body fat and concentrations of fatty acids in the blood increased as a result of that, as well as changes in hormone balance. In addition there is stress due to heat in India.” The research work takes place mainly in the laboratory. It will be tested how the hormone producing cells of the ovary are developing in cell culture models and how certain metabolic products interfere with the function of these cells, which are of vital importance for oocyte maturation and fertilization.

“The conditions for important basic research are simply the best here”, stressed Dr. Vijay Baddela, who has already published his first scientific results. “The support of the technical staff in the lab, assisting me with my experiments, is very helpful.” According to Baddela, there are a lot of problems in milk production on the farms in his home country. “I would like to contribute

towards developing agriculture in a more sustainable manner in my country with my research. This is a question of existence for many families."

The **Alexander von Humboldt Foundation** is a non-profit foundation of the Federal Republic of Germany for the promotion of international cooperation in research. In particular, it makes it possible for excellent foreign scientists to stay in Germany for doing research and supports the scientific and cultural links resulting from it. An active international network of over 28,000 scientists has emerged in this manner, since the establishment of the Foundation in 1953. Apart from Dr. Vijay Baddela, another Humboldt Research Fellow currently carries out a research stay at the FBN. Dr. Mehdi Eslamizad from Iran will mainly address scientific questions regarding methane emissions with regard to cows during the two years at the Institute of Nutritional Physiology "Oskar Kellner".

www.humboldt-foundation.de



Photos FBN: Dr. Vijay Baddela feels very good in Mecklenburg-Vorpommern (Mecklenburg-Western Pomerania). But he misses the sun a bit. He has a passion for cooking and likes it "spicy", but also likes to visit Indian restaurants in the region, which he thinks are very good. But he can be mainly found in the lab here with his mentor Dr. Jens Vanselow (right).

*** 33 scientists from the following countries are doing research at FBN:**

Chile, China, France, Greece, India, Iran, Italy, Kenya, Mexico, Netherlands, New Zealand, Nigeria, Poland, Sweden, Slovakia, Spain, Syria, Thailand, Turkey, Hungary and Vietnam

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