

## MEDIA INFORMATION

Leibniz Institute for Farm Animal Biology

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LEIBNIZ INSTITUTE  
FOR FARM ANIMAL BIOLOGY

## Biologist heads new junior research group "Growth Physiology of Fishes"

### Leibniz Institute in Dummerstorf expands its research spectrum

At the Leibniz Institute for Farm Animal Biology in Dummerstorf (FBN) a new junior research group is starting. Dr. Bianka Grunow, who was born in Rostock, leads the research group at the Institute of Muscle Biology and Growth with a focus on "Growth Physiology of Fish". FBN is thus expanding its scientific spectrum. The mother of two has previously done research at the Fraunhofer Institute for Marine Biotechnology and Cell Technology (EMB) Lübeck, the University Medical Center Greifswald as well as in Canada, Great Britain, Colombia and Norway. FBN's research activities on aquaculture fish at the Institute of Genomics in the field of fish genetics are now complemented by the field of growth physiology.

"With this step, we can build a bridge to the very successful work in fish genetics that has been carried out so far, and we can broaden and intensify our research overall," emphasized Prof. Dr. Steffen Maak, head of the Institute for Muscle Biology and Growth. "With Dr. Bianka Grunow, we have succeeded in attracting an ambitious young scientist who has not only convinced the international jury committee, but has also already achieved considerable success in the field of research and is also very well networked. In addition to university medicine in Greifswald and the German Oceanographic Museum in Stralsund, research institutions from Scotland and England are among the current cooperation partners.

### Cell culture model from larvae helps to reduce animal experiments

After studying biology at the universities of Gießen and Rostock, Dr. Bianka Grunow developed a patented cell culture model at the Fraunhofer EMB in Lübeck that will now be used at FBN. "With the innovative cell model, we can not only significantly reduce animal experiments, but also investigate the cardiovascular health of fish for the first time," said Grunow. "We are able to analyse the impact of changed environmental factors on fish health.

The junior research group focuses in particular on the effects of climate change and environmental factors on the development and growth of regional freshwater and saltwater fish. "The research group leader explained that "the main focus is on the core processes of skeletal muscle development from embryo to adult fish". In addition to fish health, the quality of fish meat also plays a special role. To this end, we want to define objective and generally applicable parameters for aquaculture. This is not least a question of promoting domestic aquaculture, which in future should make a far greater contribution to relieving the pressure on natural fish resources. Fish from sustainable aquaculture

must be healthy and taste good to the consumer. We receive our samples from the German Oceanographic Museum Stralsund on the one hand, and from the aquaculture facilities in Born and Hohen Wangelin (Mecklenburg-Vorpommern) on the other, as well as from the experimental aquaculture facility at the FBN", the scientist informed.

## Success with junior research groups is part of strategic orientation

With the establishment of Junior Research Groups (NG), the FBN has set itself the goal of supporting top-class scientists in a sensitive phase of their careers. The independent research groups in the institutes enable young postdocs to gain experience in independent scientific work and leadership. The leaders must assert themselves in an international call for proposals and receive personnel and financial resources to develop a field of work within the framework of the strategic research objectives of the FBN. The head positions are awarded on a tenure track. This means that objectives defined in advance with the candidates, such as the acquisition of third-party funding, the publication of results and leadership competence, must be achieved in order to maintain a long-term perspective at the FBN. The evaluation of the goals is carried out by an international research group. Currently there are two further junior research groups (NG Glykobiologie, PD Dr. Sebastian Galuska, NG Genomische Datenanalyse, Dr. Dörte Wittenburg) in addition to the new group around Dr. Bianka Grunow.

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### **Photo: FBN**

*Dr. Bianka Grunow and Prof.Dr. Steffen Maak in the Laboratory for Meat Quality of the Institute for Muscle Biology and Growth at FBN - the quality of fish meat from aquaculture plays an important role within the project.*

*From mouse to pig and lion - Infertility is a central problem for wildlife researchers and the conservation of species.*

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