

Dear participants of the Botanikertagung 2019 in Rostock,



on behalf of the Deutsche Botanische Gesellschaft, the German Society for Plant Sciences, I cordially welcome you to the Botanikertagung 2019, our biennial international conference. Our colleagues from Rostock have organized this conference on the topic *Plant life along gradients*. The Deutsche Botanische Gesellschaft now exists for 137 years and during this time has encountered many groundbreaking or disturbing developments. Nowadays Plant Science is a dynamic research field in the core of the needs of our society. German Plant Science is highly competitive at the global scale.

However mankind presently faces severe and accelerating challenges. The Club of Rome, a group of experts from more than 30 countries requested a sustainable development and a responsible dealing with the global resources as early as in 1968. Since then new sources for resources (energy, elements) have been found and the use of them has been exponentially increased. Climate change and, as depicted here, sustainable development goals necessarily are daily part of our discussion. However the discrepancy between word and action is getting larger rather than being narrowed.

Plant Scientists must raise their hands and request a fundamental rethink of our way of careless living. This is needed for slowing down the degradation of nature, the fragmentation of natural biotopes, the loss of biodiversity including plants and the endangerment of healthy environment. To address these challenges we need large and small steps!

Plant Science must explore the changes and pinpoint to the disastrous and radical changes. But simultaneous plant science can provide solutions. If grown under environmentally balanced conditions, plants are the most sustainable production system on earth.

Looking at the 17 sustainable development goals (called SDGs) of the United Nations, plant science with all the diversified disciplines - ranging from phycology, i.e. work with algae, ecology, molecular biology or genetics and smart breeding, plant science will necessarily contribute to at least 8 SDGs. This is animated in this picture: Crop plants adapted to the changing conditions are needed to reach the goal zero hunger. Healthy food and plant-derived pharmaceuticals are indispensable for good health and well-being. Clean water by removing toxins by plants (but also plants as toxins), urban farming to reduce transportation and improve city climate, plant biomass as a responsible production system, the function of plants in cleaning the air, being nutrition to aquatic nutrient chains and the same on land are such examples. No sustainability without plants.

All this is telling us that plant research is important. But plant science needs networking, suitable partners and novel methodology, and thus tailored cooperation to advance our knowledge and to work for a good future. The Botanikertagung offers many opportunities to build and expand the personal network. Meetings like this are needed to shape the future of our globe.

My sincere thanks go to you, Birgit Piechulla, as president of this meeting, your colleagues and the many members of the local organizing committee, the University of Rostock and all other supporters. The highly attractive program covers ecology, plant physiology, cell biology molecular biology and genetics. We are looking forward to great talks and discussions.

Dear participants, as early-career scientist or leading expert from a wide range of disciplines in plant biology you have followed the invitation of our colleagues in Rostock. You are going to present talks or posters, discuss your recent results, search for new insight or cooperation, and build your network. I am convinced that the scientific and accompanying program provide the perfect setting for a rewarding time. I wish you a unique experience, a scientifically propelling and motivating meeting and a fantastic stay in Rostock.

Rostock, 16th September 2019,
DBG's President Prof. Dr. Karl-Josef Dietz