Haus der Wissenschaft

Deutsche Botanische Gesellschaft

Invitation
Eduard Strasburger Workshop of the German Society for Plant Sciences (DBG)

Dear Colleagues,

We hereby invite you to the upcoming Eduard Strasburger Workshop, supported by the German Society for Plant Sciences (DBG). The Eduard Strasburger Workshop is an initiative of the DBG (www.deutsche-botanische-gesellschaft.de) to promote young scientists and help them to establish networks and to exchange scientific experiences. The focus of our workshop will be on hybridization with the title:

Two genomes in one cell - communication and conflict

The genome within a cell dictates its overall operations. Such programming might come into a challenge in the presence of an additional genome that is slightly or entirely different from the initial one. Thus the question arises which of these two genomes succeeds in enforcing its information and whether both genomes cooperate or if conflict prevails?

A mixed genome setup can arise through different phenomena, the most prominent example being hybridization. Hybrids are the offspring of genetically distinct parents and often exhibit phenotypic superiority and improved fitness. This is the reason why many agricultural important plants are hybrids. However, many hybrids and polyploids suffer from “hybrid incompatibility” which is manifested through decreased fertility and hence inviable offspring (Dobzhansky, 1936; Muller, 1942). Cross fertilization of different strains, varieties or even species often leads to a change in ploidy level (e.g. cotton and wheat). These processes of interspecific hybridization and polyploidization also occur naturally and contribute to genomic variability bearing the consequence of establishing mechanisms for adaptation and speciation (Soltis, 2000). The breeding of hybrids is not the only example to gather two distinct genomes in one cell. Indeed, the same outcome follow horizontal gene transfers by bacteria, viruses and even endophytic fungi. Even though research in the last century provided many insights into these topics, the genetic basics of these phenomena remain poorly understood.

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The Strasburger Workshop 2017 will gather breeders as well as evolutionary and developmental biologists and will encompass in depth seminars and discussions focusing on these topics to strengthen further understanding of genome plasticity. This workshop offers the opportunity to establish connections to find solutions and improvements for individual projects and to start new projects. Furthermore, it provides the opportunity for young scientists to exchange their experiences, techniques and gather knowledge while exploring the principles underlying the union of two genomes in one cell.

It will take place in the **Haus der Wissenschaft** in Bremen from Wednesday, **August 30** until Friday, **September 1, 2017**.

In this workshop, invited speakers will introduce their recent research findings. Besides, we would like to invite young researchers (Master, PhD, or Postdoctoral students) to present their research work in a presentation or poster form. Beside the opportunity to discuss your work and the work of others this will give you the chance to meet scientists of equal age and work experience to build up networks for your future scientific carrier. The fee will be 20€ per person and will include coffee for the conference itself as well as dinner on Thursday evening. Please register until July 31, 2017 with the registration form (pdf). For further information, please visit www.uni-bremen.de/molgen/strasburger-2017.

We hope you will joining us on this small workshop to improve your knowledge in your field and to share your own experience to increase the knowledge of others.

Best regards, from the organizing team

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