

Ongoing activities of Breeders Club

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Breeders Club of the Department of Molecular Biology and Genetics, al-Farabi Kazakh National University is in action since 2009 or so. Its aim is to tackle issues related to conventional and molecular breeding procedures, current theory and practices of plant genetics apart from cropping and soil amelioration technologies. Usually annual list of the club attendants includes 30 B.Sc. students, 10-12 graduates and 1-3 doctoral fellows completed by the part of department's staff (4-5 readers and few TAs) conducting related teaching, carrying out breeding research, and thus strongly interested in topics that are in line with club's annual plan.

Below are patterns of our plans for 2014-15 and 2016-17 which is being executed. Both plans may show principal options for club's activities either in breeding practices or while discussing hot issues of theory and international experimental research.

2014-15 Plan of Breeders Club (co-chaired by Prof. K. Shulembayeva and Prof. Z.G. Aytasheva) at the Department of Molecular Biology and Genetics School of Biology and Biotechnology, al-Farabi Kazakh National University:

1. On foundation of the Centre for Ecotechnologies. September, 2014
2. On foundation of multidisciplinary Laboratory of Monitoring and Mapping of Genetic Resources. October, 2014
3. About students excursions to genetic labs of the Academy of Sciences. January, 2015

4. On partnership of the department with the Institute of Molecular Biology and Biochemistry. February, 2015
5. On partnership of Soil Research Institute with our department based on projects and teaching of doctoral fellows in breeding. March, 2015
6. On collaboration of the department with KazNU Agrobiostation. Acquaintance of students with business incubation based on this collaboration. April, 2015
7. On cooperation of the department with the Institute of Botany and Phytointroduction, Potato Research Institute and the Institute of Biology and Biotechnology towards the development of genetic and breeding investigations. May, 2015
8. Contribution of the breeders to the Association of the Biology Faculty Graduates. Organization of Employers Fair and Endowment Fund. May, 2015
9. Collaboration of KazNU and NU geneticists of May, 2015. June, 2015
10. Semiannual (half-yearly) review of journals on breeding and seed production. December, 2014 and June, 2015

2016-17 Plan of Breeders Club (co-chaired by Prof. K. Shulembayeva and Prof. Z.G. Aytasheva) at the Department of Molecular Biology and Genetics, School of Biology and Biotechnology, al-Farabi Kazakh National University

1. Discussion on glucan suppression in endosperm as modern tool of altering the wheat grain (by A. Bowerman et al., 2016). Thursday, September 22, 2016
2. Establishment of mechanisms for gene expression and functional study on stress resistance effected by brassinosteroids (By U.K. Divi et al., 2016). Thursday, October 20, 2016
3. Discussion on Xiao-Li Ma et al., 2016 article on the investigation of salt inducible *TaSR* gene from *Triticum aestivum* L. Thursday, November 24, 2016
4. On the issue of optimization of natural grass coverage in mixture with beans (by J.M. Mischkolz et al., 2016). Thursday, December 22, 2016
5. Discussion on genetic approaches to alpha-amylase accumulation in wheat grain towards improving wheat flour bakery features. Thursday, January 26, 2017
6. TaDREB3 transgene obtained by conventional breeding with the purpose of increasing wheat drought resistance (reported by Yu. Shavrukov et al., 2016 in Journal of Plant Biotechnology). Wednesday, February 22, 2017
7. Analysis of S. Yusfi et al. team work on the expression of genes and physiological reactions in response to salination and water stress among durum wheat genotypes. Thursday, March 30, 2017
8. Genome-wide identification of artificial mutations in tomato plants treated with methanesulfonate and gamma irradiation (by K. Shirasawa et al., 2016). Thursday, April 13, 2017

Reported by Profs K.K. Shulembayeva, Z.G. Aytasheva and Dr. Anar A. Tokubayeva