



INSTITUTE OF PLANT BIOLOGY AND BIOTECHNOLOGY
Committee of Science
Ministry of Education and Sciences of the Republic of Kazakhstan
Министерство образования и науки Республики Казахстан
Комитет науки
ИНСТИТУТ БИОЛОГИИ И БИОТЕХНОЛОГИИ РАСТЕНИЙ

PROGRAMME

the 4th International conference

**"Plant Genetics, Genomics, Bioinformatics and
Biotechnology"
(PlantGen2017)**

Best Western Plus Atakent Park Hotel
May 29 - June 02, 2017, Almaty, Kazakhstan

Almaty, Kazakhstan, 2017

Organizing committee:

International Organizing Committee – IOC

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Dr. Gulnara Sitpaeva (Institute of Botany and Phytointroduction, Almaty, Kazakhstan)

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Kuandyk Amangeldinov (IPBB, Kazakhstan)

Daniyar Shamshadin (IPBB, Kazakhstan)

Serik Zhanarbek (IPBB, Kazakhstan)

Technical operating company: **NJ Company Ltd** (Almaty, Kazakhstan)

Day 1. Monday, May 29, 2017

*Best Western Plus Atakent Park Hotel, 42 Timiryazev street
Congress hall "Atakent"*

10.00-14.00 *Registration desk opens, posters setup starts, hand in your presentation*

14.00-14.15 Greetings from the Ministry of Education and Sciences of the Republic of Kazakhstan

14.15-14.25 Greetings from the city administration

Reports on integration of biological and agricultural sciences in Kazakhstan

14.30-14.50 **G. Sitpaeva**

GENETIC RESOURCES OF FLORA IN KAZAKHSTAN

Institute of Botany and Phytointroduction, Almaty Kazakhstan

14.50-15.10 **M. Yessimbekova**

GENETIC RESOURCES OF CROP SPECIES OF KAZAKHSTAN

Kazakh Research Institute of Agriculture and Plant Production, Almaty region, Kazakhstan

15.10-15.30 **A. Abugalieva, B. Bashabayeva**

MAIN TRENDS IN CEREAL BREEDING IN KAZAKHSTAN

Kazakh Research Institute of Agriculture and Plant Production, Almaty region, Kazakhstan

15.30-15.50 **T. Azhgaliev**

STATE TRIALS AND REGISTRATION OF CROPS IN KAZAKHSTAN

State Seed Testing Organization, Astana, Kazakhstan

15.50-16.10 **Coffee break**

16.10-16.30 **K. Zhambakin**

DEVELOPMENT OF PLANT BIOTECHNOLOGY IN KAZAKHSTAN

Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan

16.30-16.50 **Y. Turuspekov**

COOPERATIVE PROJECTS OF PLANT GENETICS AND BREEDING IN KAZAKHSTAN

Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan

Reports on integration of science in CIS countries

16.50-17.10 **Y. Salina**

COOPERATIVE PROJECTS FOR BREEDING AND GENETICS IN CIS COUNTRIES

Institute of Cytology and Genetics, Novosibirsk, Russia

17.10-17.30 **I. Voinikov**

ENERGETIC AND INFORMATION SYSTEMS OF PLANT CELLS UNDER TEMPERATURE CHANGES

Siberian Institute of Plant Physiology and Biochemistry, Irkutsk, Russia

18.00-21.00 **Welcome Reception** (*folk music performance shouldn't be missed*)

Day 2. Tuesday, May 30, 2017

PLENARY SESSION

*Best Western Plus Atakent Park Hotel, 42 Timiryazev street
Congress hall "Atakent"*

Session 1. GENETIC RESOURCES AND EVOLUTION

8.50-9.00 Session opening

9.00-9.30 **N. Goncharov**

Institute of Cytology and Genetics, Novosibirsk, Russia

TAXONOMY AND MOLECULAR PHYLOGENY OF GENUS TRITICUM L.

9.35-10.05 **F. Blattner**

IPK, Gatersleben, Germany

THE EVOLUTION OF THE WHEAT GRASSES: COENOGENOME VS. TAXONOMIC DIVERSIFICATION

Co-author: Bernhardt N.

10.10-10.40 **T. Tanaka**

National Institute of Crop Science, Tsukuba, Japan

BARLEY GENETIC RESOURCES AND DEVELOPMENT OF GENOTYPING INFRASTRUCTURE

10.45-11.00 Coffee break

Session 2. GENETICS OF RESISTANCE TO STRESSES AND GRAIN QUALITY

11.00-11.30 **S. Griffiths**

John Innes Centre, Norwich, UK

GLOBAL JOURNEYS OF ADAPTIVE WHEAT GENES

11.35-12.05 **Y. Uga**

National Institute of Crop Science, Tsukuba, Japan

GENOMICS-BASED BREEDING USING GENETIC VARIATION OF ROOT SYSTEM ARCHITECTURE IMPROVES CROP PRODUCTIVITY UNDER ABIOTIC STRESS CONDITIONS

12.10-12.40 **T. Fahima**

University of Haifa, Haifa, Israel

DIVERSITY AND EVOLUTION OF DISEASE RESISTANCE GENES DERIVED FROM WILD EMMER WHEAT

Co-authors: Huang Lin, Yaniv E., Raats D., Klymiuk V., Hanan Sela, Feng L., Distelfeld A., Tamar Kis-papo, Krugman T., Dubcovsky J., Chalhouh B., Schulman A. H., Korol A.B.

13.00-14.00 Lunch

Session 3. GENOMICS, PHENOMICS AND BIOINFORMATICS

14.00-14.30 **Q. Zhang**

Huazhong Agricultural University, Wuhan, China

GREEN GOALS AND GREEN TECHNOLOGIES IN PLANT BREEDING FOR GLOBAL FOOD SECURITY: THE RICE MODEL

14.35-15.05 M. Ganal
TraitGenetics GmbH, Germany
HIGH THROUGHPUT GENOTYPING FOR PLANT RESEARCH AND BREEDING
Co-authors: Graner E.-M., Polley A., Plieske J.

15.10-15.40 M. Chen
Zhejiang University, Hangzhou, China
INTEGRATIVE BIOINFORMATICS APPROACHES FOR CELLULAR INTERACTOME MODELLING OF RICE

15.45-16.00 Coffee break

Session 4. GENETIC ENGINEERING AND CROP IMPROVEMENT

16.00-16.30 J. Kumlehn
IPK, Gatersleben, Germany
GENOME ENGINEERING IN CEREALS

16.35-17.05 T. Komatsuda
National Institute of Crop Science, Tsukuba, Japan
THE POTENTIAL OF BARLEY/WHEAT ORTHOLOGY TO ADVANCE CEREAL GRAIN YIELD

17.10-17.40 B. Wulff
John Innes Centre, Norwich, UK
RAPID GENE CLONING IN WHEAT

17.45-18.00 Closing the plenary session.

Day 3. Wednesday, May 31, 2017

Tour to Medeo, Chimbulak, and center of Almaty

9.00 Departure from the Best Western Plus Atakent Park Hotel

Day 4. Thursday, June 1, 2017

Parallel sessions 1 and 2

Best Western Plus Atakent Park Hotel, 42 Timiryazev street

Session 1. GENETIC RESOURCES AND EVOLUTION

Khan Shatyr Room

Sub-session 1.1 Preservation and study of genetic resources of agricultural crops
Moderators – N. Goncharov and A. Börner

9.00-9.25 A. Börner
IPK, Gatersleben, Germany
GENETIC RESOURCES FOR FOOD AND AGRICULTURE – CONSERVATION AND UTILIZATION
Co-authors: Nagel M, Agacka-Mołdoch M., Börner M., Lohwasser U., Riewe D., Wiebach J., Altmann T., Pshenichnikova T.A., Khlestkina E.

- 9.30-9.50 R. Sadoyan**
Armenian State Pedagogical University, Yerevan, Armenia
 THE GENETIC POTENTIAL OF SOUTH CAUCASUS WHEAT
- 9.55-10.15 G. Chen**
Northwest Institute of Eco-Environment and Resources, Lanzhou, China
 A POTENTIAL FOOD CROP *AGRIOPHYLLUM SQUARROSUM*
 Co-authors: J. Zhao, X. Zhao, P. Zhao, J. Zhang
- 10.20-10.35 T. Akar**
Department of Field Crops, Faculty of Agriculture, Akdeniz University, Antalya, Turkey
 MOLECULAR AND AGRO-MORPHOLOGIC CHARACTERIZATION OF EINKORN (*T. MONOCOCCUM*) AND EMMER (*T. DICOCCON*) HULLED WHEAT LANDRACES
 Co-authors: K. Gurcan, F. Demirel, M. Tekin
- 10.40-11.00 Coffee break**
- 11.00-11.20 D. Loginova**
The Institute of Cytology and Genetics, Novosibirsk, Russia
 RYE CHROMATIN INTROGRESSION INTO WHEAT GENOME: CONTRIBUTION OF WHEAT-RYE CHROMOSOME SUBSTITUTIONS 1R/1A AND 6R/6A IN HYBRID GENOME STABILIZATION
 Co-authors: Silkov O., Ivanova Yu., Krivosheina E., Bondarevich E., Solovey L., Sycheva E., Dubovets N.
- 11.25-11.45 C. Toker**
University, Antalya, Turkey
 TRANSGRESSIONS IN RECIPROCAL INTERSPECIFIC CROSSES BETWEEN THE CULTIVATED PEA AND ITS WILD SPECIES
 Co-authors: Dogdu V., Canci H., Sari H., Sari D., Adak A.
- 11.50-12.10 P. Natalin**
Thermo Fisher Scientific
 AFFYMETRIX SOLUTIONS FOR PLANT GENETICS RESEARCH
- 12.10-12.25 M. Tekin**
Department of Field Crops, Faculty of Agriculture, Akdeniz University Antalya, Turkey
 VARIATION FOR MICRONUTRIENT AND VITAMIN B CONTENTS OF TURKISH EINKORN AND EMMER WHEAT CANDIDATE LINES
- 12.30-12.50 H. Flachowsky**
Julius Kühn-Institut, Federal Research Center for Cultivated Plants, Institute for Breeding Research on Fruit Crops, Dresden, Germany
 CURRENT STATE OF CISGENESIS AND RAPID CROP CYCLE BREEDING IN GERMAN FRUIT BREEDING RESEARCH
 Co-authors: Hanke M.-V.
- 13.00-14.00 Lunch**

Sub-session 1.2 Molecular systematics and variation in wild plants

Moderators – F. Blattner and S. Abugalieva

14.00-14.25 F. Blattner

IPK, Gatersleben, Germany

INTRODUCTION AND APPLICATION OF DNA BARCODING

14.30-14.45 S. Abugalieva

Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan

GENETIC DIVERSITY OF ENDEMIC AND RARE WILD PLANT SPECIES IN KAZAKHSTAN

Co-authors: Ivaschenko A., Ishmuratova M., Kotukhov Y., Danilova A., Myrzagalieva A., Veselova P., Kudabayeva G., Sitpayeva G., Imanbayeva A., Sakauova G., Kakimzhanova A., Turuspekov Y.

14.50-15.05 Y. Genievskaya

BSc, Institute of Plant Biology and Biotechnology, Al-Farabi Kazakh National University, Almaty, Kazakhstan

DNA BARCODING OF SAND RICE *AGRIOPHYLLUM SQUARROSUM* COLLECTED IN KAZAKHSTAN

Co-authors: Abugalieva S., Shamshadin D., Zhubanysheva A., Turuspekov Y.

15.10-15.25 O. Boika

Zaporizhzhia National University, Zaporozhie, Ukraine

PLANT DEVELOPMENT TYPE AND ITS CORRELATION WITH OTHER TRAITS IN LUNARIA GENUS (CRUCIFERAE)

15.30-15.45 S. Almerkova

PhD student, Al-Farabi Kazakh National University, Almaty, Kazakhstan

PHYLOGENETIC ANALYSIS OF ENDEMIC SPECIES *OXYTROPIS ALMAATENSIS* BAJT. FROM KAZAKHSTAN

Co-authors: Mukhitdinov N.M., Kurmanbayeva M.S.

15.50-16.05 A. Myrzagaliyeva

S.Amanzholov East Kazakhstan State University, Ust-Kamenogorsk, Kazakhstan

GENETIC RESOURCES OF FLORA IN EASTERN KAZAKHSTAN

16.10-16.30 Coffee break

16.30-16.45 A. Imanbayaeva

Mangyshlak Experimental Botanical Garden, Aktau, Kazakhstan

CONSERVATION OF GENETIC RESOURCES IN WESTERN KAZAKHSTAN

Co-authors: N. Duysenova, A. Tujakova, D. Jumakhan

16.50-17.05 A. Kakimzhanova

National Biotechnology Center, Astana, Kazakhstan

REPRODUCTION OF PLANT MATERIAL OF TREE SPECIES

Co-authors: V.K. Karimova, A.S. Nurtaza

17.10-17.25 E. Shadenova

Institute of Genetics and Cytology, Almaty, Kazakhstan

REPRODUCTION OF GENETIC RESOURCES OF KAZAKHSTAN

Co-authors: Zhumabekov E., Sembekov M.

17.30-18.30 POSTER SESSION

Day 4. Thursday, June 1, 2017

Parallel sessions 1 and 2

Best Western Plus Atakent Park Hotel, 42 Timiryazev street

Session 2. ABIOTIC AND BIOTIC STRESS RESISTANCE

Kok Tobe room

Moderators – E. Salina and P. Kostylev

- 9.00-9.25 E. Salina**
Institute of Cytology and Genetics, Novosibirsk, Russia
APPROACHES AND ACHIEVEMENTS IN MOLECULAR PRE-BREEDING FOR RUST RESISTANCE IN WEST SIBERIA
Co-authors: Adonina I., Stasyuk A., Leonova I.
- 9.30-9.50 P. Kostylev**
All-Russian Research Institute of Grain Crops by I.G.Kalinenko, Zernograd, Russia
MARKER ASSISTED SELECTION OF RICE FOR RESISTANCE TO DISEASES, FLOODING AND SOIL SALINITY
Co-authors: Krasnova E., Redkin A., Kalievskaya Y.
- 9.55-10.15 N. Bome**
Federal State Autonomous Educational Institution of Higher Education, Tyumen State University, Tyumen, Russia
THE VARIABILITY OF THE PARAMETERS OF THE MORPHOGENETIC PROCESSES IN POPULATIONS OF *TRITICUM AESTIVUM* L. UNDER THE INFLUENCE OF STRESS FACTORS
Co-authors: Bome A., Weisfeld L., Kolokolova N., Petrova A., Belozeroва A.
- 10.20-10.35 A. Kokhmetova**
Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
SCREENING OF WHEAT CULTIVARS GROWING IN KAZAKHSTAN AND RUSSIA FOR RESISTANCE TO *PYRENOPHORA TRITICI REPENTIS* USING LABORATORY AND MOLECULAR METHODS
Co-authors: O. Kremneva, G. Volkova, Zh.S. Keyshilov, K. Galymbek, M. Kumarbayeva, N.Zh. Sultanova
- 10.40-11.00 Coffee break**
- 11.00-11.20 Y. Turuspekov**
Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
PREDICTION OF FLOWERING TIME AND GWAS OF YIELD COMPONENTS OF SPRING WHEAT IN KAZAKHSTAN
Co-authors: Yermekbayev K., Baibulatova A., Chapman S., Zheng B., Ganal M., Plieske J., Griffiths S., Abugalieva S.
- 11.25-11.40 I. Leonova**
Institute of Cytology and Genetics, Novosibirsk, Russia
RESISTANCE TO FUNGAL DISEASES OF SPRING WHEAT VARIETIES FROM DIFFERENT RUSSIAN REGIONS
Co-authors: Skolotneva E., Salina E.

11.45-12.00 T. Suzuki
Agricultural Research Dept., Hokkaido Research Organization, Hokkaido, Japan
RESISTANCE TO WHEAT YELLOW MOSAIC VIRUS IN MADSEN WHEAT IS CONTROLLED BY TWO MAJOR COMPLEMENTARY QTLS

12.05-12.20 A. Zatybekov
PhD student, Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
ASSOCIATION MAPPING OF AGRONOMIC TRAITS IN SOYBEAN HARVESTED IN KAZAKHSTAN
Co-authors: Rsaliyev A., Didorenko S., Abugalieva S., Turuspekov Y.

12.25-12.40 L. Minasbekyan
Yerevan State University, Yerevan, Armenia
EPIGENETIC EVENTS IN WHEAT SEEDLINGS NUCLEI ABIOTIC STRESS RESPONCES

12.45-13.00 A. Perfileva
Siberian Institute of Plant Physiology and Biochemistry, Irkutsk, Russia
EXPRESSION OF STRESS RESPONSE GENES OF *IN VITRO* POTATO PLANTS UNDER HEAT STRESS AND PATHOGENESIS OF RING ROT
Co-authors: E. Garnik, A. Stolbikov, V. Nurminsky

13.00-14.00 Lunch

Moderators – Y. Uga and E. Potokina

14.00-14.25 E. Potokina
N.I.Vavilov Institute of Plant Genetic Resources, Saint Petersburg, Russia
MAPPING AND RE-SEQUENCING OF *SDW1/DENSO* LOCUS AFFECTING PLANT HEIGHT AND HEADING DATE IN BARLEY
Co-authors: Lebedeva M., Teplyakova S., Ivanova N., Voytsutskaya N., Kovaleva O.

14.30-14.45 E. Rogozhin
Shemyakin and Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia
UNIQUE GENE STRUCTURES ENCODING A FAMILY OF HAIRPIN-LIKE DEFENSE PEPTIDES FROM BARNYARD GRASS (*ECHINOCHLOA CRUSGALLI* L. BEAUV.) SEEDS
Co-authors: Ryazantsev D.

14.50-15.05 M. Bakir
Erciyes University, Department of Agricultural Biotechnology, Kayseri, Turkey
DETERMINATION OF ASCORBATE PEROXIDASE GENE EXPRESSION IN THE LENTIL (*LENS CULINARIS* MEDIK) UNDER DROUGHT STRESS CONDITIONS
Co-authors: M. Özdere

- 15.10-15.25 A. Gapeka**
Institute of Biology and Soil Science of Far Eastern Branch of Russian Academy of Sciences, Vladivostok, Russia
ECOLOGY AND ECONOMIC IMPACT OF BARLEY STRIPE MOSAIC VIRUS (*VIRGAVIRIDAE, HORDEIVIRUS*) IN THE PRIMORSKY KRAI OF RUSSIA
Co-authors: Zelikova A., Zhmurkina S., Pleshakova T., Volkov Y., Kakareka N., Shchelkanov M.
- 15.30-15.45 L. Elkonin**
Agricultural Research Institute of South-East Region, Saratov, Russia
DROUGHT AS A MODULATOR OF GENE EXPRESSION FOR CMS AND APOMIXIS IN SORGHUM
Co-authors: Kozhemyakin V., Gerashchenkov G., Belyaeva E., Panin V., Rozhnova N.
- 15.50-16.05 L. Tohetova**
Kazakh Research Institute of Rice Growing by I. Zhahaev, Kyzylorda, Kazakhstan
GENETIC-STATISTICAL ANALYSIS THE AGRONOMIC TRAITS OF BARLEY BY TWO-TESTING METHOD
Co-authors: A. Demesinova, M. Bekova
- 16.10-16.30 Coffee break**
- 16.30-16.45 O. Tsvileva**
Institute of Biochemistry and Physiology of Plants and Microorganisms, Saratov, Russia
EVALUATION OF OPPORTUNITY FOR APPLYING THE BIOGENIC METALS ASPARTATES TO IMPROVE THE PROCESSES OF MUSHROOMS CULTIVATION
Co-authors: V. Fadeev, S. Voronin, A. Gumenyuk, V. Nikitina
- 16.50-17.05 A. Rsaliyev**
Research Institute for Biological Safety Problems, Dzhambul region, Kazakhstan
SCREENING OF BARLEY GENOTYPE FOR DETECTION OF RESISTANCE DONORS TO BARLEY POWDERY MILDEW
Co-authors: Pakhratdinova Z.
- 17.10-17.25 Z. Vershinina**
Institute of Biochemistry and Genetics of Ufa Science Centre, Ufa, Russia
AGGLUTININ GENES AND THE PROCESS OF CREATING ARTIFICIAL SYMBIOTIC SYSTEMS
Co-authors: Hakimova L., Yasybaeva G., Lavina A., Baimiev A.
- 17.30-18.30 POSTER SESSION**

Day 5. Friday, June 2, 2017

Parallel sessions 3 and 4

Best Western Plus Atakent Park Hotel, 42 Timiryazev street

Session 3. GENOMICS, PHENOMICS, AND BIOINFORMATICS

Khan Shatyr Room

Moderators – R. Kalendar and E. Khlestkina

- 9.00-9.25 E. Khlestkina**
Institute of Cytology and Genetics, Novosibirsk, Russia
GENETICS AND OMICS APPROACHES TO BETTER UNDERSTANDING
REGULATION OF METABOLIC PATHWAYS UNDERLYING
PIGMENTATION IN WHEAT AND BARLEY
Co-authors: Shoeva O., Gordeeva E., Shmakov N., Strygina K., Glagoleva A.,
Kukoeva T., Shatskaya N., Vasiljev G., Börner A., Afonnikov D.
- 9.30-9.45 J. Jianbo**
BGI Genomics Co., Ltd, Shenzhen, China
THE APPLICATION OF GENOMIC INNOVATION IN PLANT
- 9.50-10.05 O. Dobrovolskaya**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
STUDY ON GENETIC CONTROL OF EARLY INFLORESCENCE
DEVELOPMENT IN BREAD WHEAT (*T. AESTIVUM* L.) THAT
DETERMINES INFLORESCENCE ARCHITECTURE AND YIELD
Co-authors: Popova K., Orlov Y., Krasnikov A., Martinek P.
- 10.10-10.25 P. Ulianich**
N. I. Vavilov Institute of Plant Genetic Resources, Saint Petersburg, Russia
GENOTYPING OF POPULATION GENERATED BY *POPULUS TREMULA*
× *P. ALBA* CROSS
Co-authors: Lebedeva M., Zhigunov A., Voitsekhovskii D., Potokina E.
- 10.30-10.50 Coffee break**
- 10.50-11.10 R. Kalendar**
National Biotechnology Center, Astana, Kazakhstan
GENOME SIZE VARIATION AND LONG TANDEM ARRAYS OF LTR
RETROELEMENTS IN PLANTS
- 11.15-11.35 A. Glagoleva**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
IDENTIFICATION OF GENES CONTROLLING BLACK PIGMENTATION
IN CEREALS
Co-authors: Vasiliev G., Shatskaya N., Shmakov N., Afonnikov D., Shoeva O.,
Börner A., Khlestkina E.
- 11.40-11.55 O. Babak**
Institute of Genetics and Cytology, Minsk, Belarus
PECULIARITIES OF LYCOPENE B-CYCLASE GENES EXPRESSION,
DEPENDING ON THE COMBINATIONS OF ALLELES THAT
DETERMINE THE ACCUMULATION OF PIGMENTS IN THE *SOLANACEAE*
Co-authors: Nekrashevich N., Nikitinskaya T., Yatsevich K., Kilchevsky A.

- 12.00-12.15 A. Kiseleva**
PhD student, Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 NEW ASPECTS OF WHEAT PHOTOPERIOD INSENSITIVE *PPD-B1* REGULATION AND INTERACTIONS
 Co-authors: Salina E.
- 12.20-12.40 A. Vitovtov**
Thermo Fisher Scientific
 NEW APPROACHES IN PLANT CELL ANALYSIS: ROBUST MONITORING OF CELL HEALTH AND PHYSIOLOGY
- 12.40-13.00 K. Bolaeva**
SkyGen Ltd., Russia
 SKYGEN SOLUTIONS FOR DNA SEQUENCING, CLONING AND GENOME EDITING
- 13.00-14.00 Lunch**
Moderators – M. Ganal and M. Abbasov
- 14.00-14.20 Y. Orlov**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 BIOINFORMATICS ANALYSIS OF GENOME AND TRANSCRIPTOME STRUCTURES RELATED TO FREEZING AND DROUGHT RESISTANCE IN CROP PLANTS
 Co-authors: Dobrovolskaya O., Bragin A., Babenko V., Chen M.
- 14.25-14.45 M. Abbasov**
Genetic Resources Institute of ANAS, Baku, Azerbaijan
 EVALUATING GENETIC DIVERSITY OF DURUM AND BREAD WHEAT GENOTYPES USING NEXT GENERATION SEQUENCING
 Co-authors: Z. Akparov, N. Aminov, K. Rustamov, F. Sheyhzamanova, S. Rzayeva, R. Bowden, J. Raupp, S. Sehgal, B. Gill
- 14.50-15.10 N. Shmakov**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 INVESTIGATING BARLEY NUCLEAR GENES CONTROLLING CHLOROPHYLL SYNTHESIS WITH RNA-SEQ
 Co-authors: G. Vasiliev, N. Shatskaya, A. Doroshkov, D. Afonnikov, E. Khlestkina
- 15.15-15.35 V. Khlestkin**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 HIGH-THROUGHPUT MICROSCOPY-BASED PHENOTYPING OF POTATO STARCH GRANULES
- 15.40-15.55 M. Genaev**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 MOBILE APPLICATION FOR HIGH THROUGHPUT GRAIN PHENOTYPING
 Co-authors: E. Komyshev, D. Afonnikov

16.00-16.15 Coffee break

16.15-16.35 **E. Evtushenko**

Institute of Molecular and Cellular Biology, SB RAS, Novosibirsk, Russia
CYTOGENOMIC PROBLEMS OF HETEROPLASMATIC HEXAPLOID TRITICALE

Co-authors: I.A. Gordei, O.M. Lyusikov, I.S. Gordei, Yu. A. Lipikhina, A.V. Vershinin

16.40-16.55 **K. Strygina**

Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia

DUPLICATED GENES IN POLYPLOID PLANT SPECIES - CASE STUDIES IN WHEAT AND POTATO

Co-authors: Shoeva O., Gordeeva E., Khlestkina E.

17.00-17.15 **K. Yermekbayev**

PhD student, Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan

CONSTRUCTION AND UTILIZATION OF THE HEXAPLOID WHEAT GENETIC MAP PAMYATI AZIEVA X PARAGON

Co-authors: Turuspekov Y., Ganal M., Plieske J., Griffiths S.

17.20-17.35 **N. K. Bishimbayeva**

Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan

CELL TECHNOLOGY FOR CREATING PRECOCIOUS FORMS OF SOFT SPRING WHEAT

Co-authors: K. Baymagambetova, R.A. Urazaliev, I.A. Nurpeisov, V.A. Chudinov, G.A. Sereda, L.V. Bekenova, O.S. Gass, M.K. Karabayev, I.R. Rahimbayev

17.40-17.55 **U. Kairov, Bishimbayeva N.**

Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan

Nazarbaev University, Astana, Kazakhstan

TRANSCRIPTOME SEQUENCING AND GENE EXPRESSION PROFILING OF WHEAT CELL CULTURE DURING TRANSITION TO SOMATIC EMBRYOGENESIS

Co-authors: N.K. Bishimbayeva, C.Y. Li, N.O. Nakisbekov, A.N. Begzat, A. Molkenov, A.S. Amirbekov, A.O. Smagul, T. Kapasuly, A. Mitra, I.R. Rakhimbayev

18.00. Conference Closure

18.30-22.00 Conference Banquet

Session 4. GENETIC ENGINEERING AND CROP IMPROVEMENT

Kok Tobe room

Moderators – S. Toki and J. Kumlehn

9.00-9.25 **S. Toki**

NARO Institute of Agrobiological Sciences, Tsukuba, Japan

PRECISE AND EFFICIENT MUTAGENESIS IN CROPS VIA GENOME EDITING

- 9.30-9.45 V. Pavlichenko**
Siberian Institute of Plant Physiology and Biochemistry, Irkutsk, Russia
 AGROBACTERIUM MEDIATED TRANSFORMATION OF *POPULUS*×*BEROLIENSIS* BY *ATGA20OX1* GENE USING PRI 101-AN VECTOR
 Co-authors: Bairamova E., Protopopova M., Zolotovskaya E., Voinikov V.
- 9.50-10.05 P. Khvatkov**
All-Russia Research Institute of Agricultural Biotechnology, Moscow, Russia
 AGROBACTERIUM-MEDIATED TRANSFORMATION OF *WOLFFIA ARRHIZA*, TO OBTAIN PLANT-PRODUCER OF RECOMBINANT HUMAN GRANULOCYTE COLONY-STIMULATING FACTOR
 Co-authors: Firsov A., Shaloiko L., Pushin A., Tarasenko I., Chernobrovkina M., Dolgov S.
- 10.10-10.25 B. Rezaeva**
PhD student, Center of Genomics and Bioinformatics, Tashkent, Uzbekistan
 EFFECTIVE AGROBACTERIUM TRANSFORMATION OF WHEAT *TRITICUM AESTIVUM* L.
 Co-authors: Buriev Z., Ubaydullaeva K., Rakhmanov B., Tulanov A., Abdurakhmonov I.
- 10.30-10.50 Coffee break**
- 10.50-11.10 L. Pershina**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 ALLOPLASMIC WHEAT TO GENETIC RESEARCH AND BREEDING
 Co-authors: Belan I., Rosseeva L., Osadchaya T., Kravtsova L., Belova L., Trubacheeva N.
- 11.15-11.35 S. Gerasimova**
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 GENOME EDITING IN SIBERIAN BARLEY
 Co-authors: Korotkova A., Khlestkina E.
- 11.40-11.55 I. Graskova**
Siberian Institute of Plant Physiology and Biochemistry, Irkutsk, Russia
 THE POSSIBILITY OF USING OF NANOCOMPOSITES IN AGRICULTURE
 Co-authors: Perfilieva A.I., Klimenkov I.V., Sukhov B.G.
- 12.00-12.15 M. Ilyushko**
Primorsky Scientific Research Institute of Agriculture, Ussuriisk, Russia
 NUCLEAR DNA CONTENT IN RICE REGENERANTS, OBTAINED BY ANTHHER CULTURE *IN VITRO* IN RUSSIAN FAR EAST
 Co-authors: Skaptsov M., Romashova M.
- 12.20-12.35 V. Stegny**
National Research Tomsk State University, Tomsk, Russia
 GENETIC PARAMETERS OF SPECIES REQUIRED FOR EFFECTIVE SELECTION
 Co-authors: A. Sibataev, G Abylkassymova

- 12.40-12.55 S. Manabayeva**
National Center for Biotechnology, Astana, Kazakhstan
TOMATO BUSHY STUNT VIRUS - BASED VECTOR FOR
TRANSIENT EXPRESSION OF HETEROLOGOUS PROTEINS IN
NICOTIANA BENTHAMIANA PLANTS
Co-authors: Zhumabek A., Abeuova L., Ramankulov E.
- 13.00-14.00 Lunch**
- Moderators – I. Graskova and G. Shpakovski*
- 14.00-14.20 G. Shpakovski**
Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia
A KEY ENZYME OF ANIMAL STEROIDOGENESIS CAN FUNCTION
IN PLANT IMPROVING THEIR IMMUNITY AND INCREASING THE
PROCESSES OF GROWTH AND DEVELOPMENT
Co-authors: Spivak S., Berdichevets I., Babak O., Kilchevsky A.,
Shpakovski D., Khaliluev M., Shematorova E.
- 14.25-14.40 K. Korolev**
Tyumen State University, Tyumen, Russia
MUTATIONAL VARIABILITY OF THE VARIETIES OF FLAX (*LINUM
USITATISSIMUM* L) INDUCED BY NITROSOMETHYLUREA AND
NITROSOGUANIDINE
Co-authors: Golub I.
- 14.45-15.00 V. Tvorogova**
Saint Petersburg State University, Saint Petersburg, Russia
NEW PARTICIPANTS OF SOMATIC EMBRYOGENESIS IN
MEDICAGO TRUNCATULA
Co-authors: Fedorova Y., Vaschkevich T., Lutova L.
- 15.05-15.20 T. Pleshakova**
*Federal Scientific Center of the East Asia Terrestrial Biodiversity,
Vladivostok, Russia*
PLANT VIRUSES AND THEIR INTERACTION WITH PLANT
COMMUNITIES OF FAR EAST OF RUSSIA
Co-authors: Kozlovskaya Z., Tolkach V., Volkov Y., Kakareka N., Gapeka
A., Shchelkanov M
- 15.25-15.40 B. Anapiyaev**
Institute of Engineering High Technologies, Almaty, Kazakhstan
MOLECULAR MARKERS AND HAPLOID BIOTECHNOLOGY IN
RAPID SELECTION OF *TRITICUM AESTIVUM* L. FOR RESISTANCE
TO RUST DISEASES IN THE CONDITIONS OF SOUTHERN
KAZAKHSTAN
Co-authors: Iskakova K., Beisenbek E., Sarbayev A., Dweikat I., Baenziger P.
- 15.45-16.00 Y. Fedorova**
BSc, St. Petersburg State University, Saint Petersburg, Russia
REGULATION OF SOMATIC EMBRYOGENESIS BY WOX GENES IN
MEDICAGO TRUNCULATA
Co-authors: Tvorogova V., Lutova L.

16.00-16.15 Coffee break

Sub-Session. Modern biotechnology approaches in study of wild and cultivated oats

Moderators – T. Langdon and I. Loskutov

16.15-16.40 T. Langdon

Aberystwyth University, UK

GENOMICS TOOLS FOR OAT BREEDING

Co-authors: Bisaga M., Griffiths I., Vickerstaff R., Paczos-Grzeda E., Abugalieva A., Dumlupinar Z., Huang Y-F., Giorgi D., Lucretti S.

16.45-17.05 Z. Zhang

Institute of Crop Science, Beijing, China

PRESERVATION AND EVALUATION OF GENETIC RESOURCES OF OAT IN CHINA

17.10-17.30 I. Loskutov

N. I. Vavilov Institute of Plant Genetic Resources, Saint Petersburg, Russia

METABOLOMIC APPROACH TO RESISTANCE OF *AVENA* SPECIES TO FUSARIUM HEAD BLIGHT (FHB)

17.35-17.55 A. Abugalieva

Kazakh Research Institute of Agriculture, Almaty region, Kazakhstan;

Kazakh National Agrarian University, Kazakhstan

GRAIN QUALITY IN COLLECTIONS OF WHEAT AND OAT

18.00 Conference Closure

18.30-22.00 Conference Banquet

Day 4. Thursday, June 1, 2017 (17.30-18.30)

PlantGen 2017 (Almaty, Kazakhstan, 2017) - POSTER SESSION

*Best Western Plus Atakent Park Hotel, 42 Timiryazev street
Congress hall "Atakent"*

Session 1. Genetic Resources and Evolution

- P1-1** Abugalieva S.¹, **Amalova A.**¹, Anuarbek S.¹, Kaparbay R.¹, Ivaschenko A.², Turuspekov Y.¹
¹ *Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan*
² *Ile-Alatau National Nature Reserve, Almaty region, Kazakhstan*
EVALUATION OF GENETIC VARIATION IN RARE TULIP SPECIES FROM KAZAKHSTAN
- P1-2** Abugalieva S.¹, Volkova L.¹, **Amangeldinov K.**¹, Ivaschenko A.², Kotukhov Y.³, Sakauova G.⁴, Turuspekov Y.¹
¹ *Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan*
² *Ile-Alatau National Nature Reserve, Almaty, Kazakhstan*
³ *Altai Botanical Garden, Ridder, Kazakhstan*
⁴ *Karatau National Nature Reserve, Kentau, Kazakhstan*
TAXONOMIC REASSESSMENT OF SOME ALLIUM SPECIES FROM KAZAKHSTAN BASED ON DNA BARCODING ANALYSIS
- P1-3** Tekin M.¹, Coskun I.¹, Manav G.¹, Cat A.², Sonmez S.³, **Akar T.**¹
¹ *Dept. of Field Crops, Faculty of Agriculture, Akdeniz University, Antalya, Turkey*
² *Dept. of Plant Protection, Faculty of Agriculture, Siirt University, Siirt, Turkey*
³ *Dept. of Soil Science, Faculty of Agriculture, Akdeniz University, Antalya, Turkey*
MOLECULAR CHARACTERIZATION OF DURUM WHEAT AND ITS TETRAPLOID WILD RELATIVES FOR CADMIUM ACCUMULATION
- P1-4** **Avalyan R.E.**, Minasbekyan L.A.
Yerevan State University, Scientific Research Institute of Biology, Armenia
CURRENT PROBLEMS OF STUDY AND PRESERVE OF WHEAT GENE POOL OF ARMENIA
- P1-5** **Bilgen M.**, Delibalta Z., Adak A.
Akdeniz University, Antalya, Turkey
EFFECT OF COLCHICINE APPLICATIONS ON GERMINATION OF SOME FORAGE CROPS
- P1-6** **Boiko N.**, Piskarev V., Timofeev A., Kapko T.
SibRIPP&B- Branch of ICG SB RAS, Krasnoobsk, RUSSIA
STUDY OF SPECIFICS OF FORMATION THE SPIKELET NUMBER PER SPIKE OF VARIETIES OF SOFT SPRING WHEAT IN CONTRASTING YEARS
- P1-7** **Chirkin A.P.**¹, Yurkevich N.A.¹, Yessimbekova M.A.², Mukin K.², Ismagulova G.A.¹
¹ *M.A.Aitkhozhin Institute of Molecular Biology and Biochemistry, Almaty, Kazakhstan*
² *Kazakh Research Institute of Agriculture and Plant Growing, Almalyk, Almaty reg., Kazakhstan*
PHYLOGENETIC ANALYSIS OF FOREIGN AND LOCAL ECOTYPES OF GENUS *AEGILOPS* L. USING EST-SSR MARKERS

- P1-8** Dobrovolskaya O.B.^{1,2}, **Ermakov A.A.**¹, Dresvyannikova A.E.², Amagai Yu.³, Krasnikov A.A.⁴, Goncharov N.P.¹, Watanabe N.³
¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;*
²*Novosibirsk State University, Novosibirsk, Russia;*
³*College of Agriculture, Ibaraki University, Ibaraki, Japan;*
⁴*Central Siberian Botanical Garden SB RAS, Novosibirsk, Russia*
 CHARACTERIZATION OF LIGULELESS MUTANTS OF TRITICEA SPECIES USING MOLECULAR GENETICS AND SCANNING ELECTRON MICROSCOPY
- P1-9** **Ishmuratova M.Yu.**
Karaganda State University named after academician Ye.A. Buketov, Karaganda, Kazakhstan
 THE POTENTIAL OF USING OF PRACTICAL - VALUED PLANTS' RESOURCES OF THE CENTRAL KAZAKHSTAN'S FLORA
- P1-10** **Izbastina K.S.**¹, Kurmanbayeva M.S.¹, Abugalieva S.I.²
¹*Al-Farabi Kazakh National University, Almaty, Kazakhstan;*
²*Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan*
 MORPHOLOGICAL AND PHYLOGENETIC IDENTIFICATION OF THE *ANTHEMIS TROTZKIANA* CLAUS
- P1-11** Abugalieva A.I.¹, **Massimgaziyeva A.I.**¹, Azhgaliev T.B.², Zhumahanova A.Zh.²
¹*The Kazakh scientific research institute of agriculture and plant growing, Almalybak, Kazakhstan;*
²*SVTMA RK, Astana-Almaty, Kazakhstan*
 THE CONTENT OF OIL AND FATTY ACIDS IN BREEDING OF SUNFLOWER, SAFFLOWER, SOYBEAN, CANOLA AND LINEN: CULTIVARS GENE POOL AND GENETIC RESOURCES
- P1-12** Abugalieva A.I.^{1,2}, **Nurpeissov M.**², Sariev B.S.¹, Zhundibaev K.K.¹
¹*Kazakh Research Institute of Agriculture and Plant Growing, Kazakhstan;*
²*Kazakh National Agrarian University, Kazakhstan*
 IDENTIFICATION OF PRODUCTIVITY AND QUALITY OAT GENOTYPES: AVENYNE, DNA MARKERS AND MORPHOLOGY (UPOV)
- P1-13** **Orazov A. E.**, Akzambek A.M.
S.Amanzholov East Kazakhstan State University
 DEVELOPMENT OF TECHNOLOGY FOR CLONAL MICROPROPAGATION OF *RHODIOLA ROSEA* L.
- P1-14** **Piskarev V.**, Boiko N., Kapko T., Timofeev A.
SibRIPP&B- Branch of ICG SB RAS, Novosibirsk, Russia
 IDENTIFICATION OF THE GENETIC CONTROL OF THE 1000 GRAIN WEIGHT OF VARIETIES DIFFER OF SOFT SPRING WHEAT
- P1-15** Pozharskiy A.S., Aubakirova K.P., **Ryabushkina N.A.**
Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
 GENOTYPIC AND AMPELOMETRIC CHARACTERIZATION OF KAZAKHSTAN GRAPEVINE CULTIVARS COMPARED TO EUROPEAN AND ASIAN CULTIVARS

- P1-16** **Tagimanova D.S.**¹, Khapilina O.N.¹, Danilova A.N.², Amenov A.A.¹, Kalendar R.N.¹,
¹*National Center for Biotechnology, Astana, Kazakhstan;*
²*Altai Botanical Garden, Ridder, Kazakhstan*
 RETROTRANSPOSONS-BASED GENETIC DIVERSITY AND
 RELATIONSHIP AMONG *RHODIOLA ROSEA*
- P1-17** **Tikhonova M.A.**, Koppel R., Ingver A.
Estonian Crop Research Institute, Estonia
 IDENTIFICATION OF *GLU-D1* AND *GLU-A1* ALLELES IN BREAD
 WHEAT USING DNA MARKERS
- P1-18** **Trubacheeva N.V.**, Osadchaya T.S., Pershina L.A.
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
 VARIABILITY OF NUCLEAR GENOMES AND THE STATE OF ORGANELLE
 DNA IN ALLOPLASMIC (HORDEUM)- *T. AESTIVUM* LINES
- P1-19** **Turzhanova A.S.**, Kalendar R.N.
RSE "National Center for Biotechnology", Astana, Kazakhstan
 GENE POLYMORPHISMS OF WHEAT SUPEROXIDE DISMUTASE GENE
 FAMILY
- P1-20** **Volkova L.**¹, Gemedzhieva N.², Abugalieva S.¹, Zhanarbek S.¹, Veselova P.²,
 Sitpayeva G.², Turuspekov Y.^{1*}
¹*Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan*
²*Institute of Botany and Phytointroduction, Almaty, Kazakhstan*
 ASSESSMENT OF DISTINCTIONS BETWEEN *GLYCYRRHIZA URALENSIS*
 AND *GLYCYRRHIZA GLABRA* BASED ON ANALYSIS OF ITS MARKERS
- P1-21** Lei L., **Wang L.**, Wang S.
Institute of Crop Sciences, Chinese Academy of Agricultural Sciences, Beijing, China
 ANALYSIS OF GENETIC DIVERSITY OF COMMON BEAN FROM
 DIFFERENT REGION OF CHINA
- P1-22** **Yessimseitova A.**, Zhanybekova Zh., Kakimzhanova A.
National Center for Biotechnology, Astana, Kazakhstan
 STUDY OF FLORAL GENETIC DIVERSITY IN THE STATE NATIONAL
 NATURAL PARKS OF BAYANAUL AND BURABAY IN KAZAKHSTAN
- P1-23** **Zhang J.W.**^{1,2}, Chen G.X.¹
¹*Northwest Institute of Eco-Environment and Resources, Chinese Academy of
 Sciences, Lanzhou, China*
²*University of Chinese Academy of Sciences, Beijing, China*
 TRANSCRIPTOMIC ANALYSIS OF A TRICHOMELESS MUTANT OF
AGRIOPHYLLUM SQUARROSUM
- P1-24** **Zhubanysheva A.U.**, Zhubanyshev A.B., Titova B.U.
LLP "Agricultural Experimental Station of Aktobe city"
 MONITORING OF PLANT SPREADING OF *AGRIOPHYLLIUM*
SQUAROSSUM
- P1-25** **Nurtaza A.**, Karimova V., Kakimzhanova A.
National Center for Biotechnology, Astana, Kazakhstan
 OPTIMIZATION OF CONDITIONS OF MICROCLONAL PROPAGATION OF
MALUS NJEDZWETZKYANA

P1-26 Tekin M., Coskun I., Manav G., Cat A., Sonmez S., Akar T. MOLECULAR CHARACTERIZATION OF DURUM WHEAT AND ITS TETRAPLOID WILD RELATIVES FOR CADMIUM ACCUMULATION

Session 2. ABIOTIC AND BIOTIC STRESS RESISTANCE

P2-1 **Anuarbek Sh.**¹, Abugalieva S.¹, Didorenko S.², Gerasimova Y.³, Sidorik I.⁴, Turuspekov Y.¹

¹ *Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan*

² *Kazakh Research Institute of Agriculture, Almalyk vil., Almaty region, Kazakhstan*

³ *East Kazakhstan Research Institute of Agriculture, VKO, Kazakhstan*

⁴ *Kostanaiskyi Research Institute of Agriculture, Kostanai region, Kazakhstan*

INFLUENCE OF *DT1* GENE TO YIELD COMPONENTS OF SOYBEAN HARVESTED IN KAZAKHSTAN

P2-2 **Atishova M.**, Kokhmetova A., Typina L., Madenova A., Galymbek K., Keishilov Zh.

Institute of Plant Biology and Biotechnology, Kazakhstan

IDENTIFICATION OF GENETIC CARRIERS OF WHEAT, STEADY AGAINST YELLOW RUST *PUCCINIA STRIIFORMIS* F. SP. *TRITICI*

P2-3 **Bekkuzhina S.**¹, Zhamekova A.¹, Kitaibekova S.¹, Apushev N.²

¹ *S. Seifullin KATU, Astana, Kazakhstan*

² *LLP Berry Republic, Astana, Kazakhstan*

THE ROLE OF SALICYLIC ACID IN THE INDUCTION OF WHEAT STABILITY TO STRESSERS

P2-4 **Bersimbaev R.I.**, Kravchenko A.P.

L.N. Gumilyov Eurasian National University, Institute of Cell biology and Biotechnology, Astana, Kazakhstan

REGULATION OF ABA METABOLISM BY TOR SIGNALING IN *ARABIDOPSIS THALIANA*

P2-5 **Bobrovskikh A.V.**^{1,2}; Doroshkov A.V.¹

¹ *Institute of Cytology and Genetics of the SB RAS;*

² *Novosibirsk State University, Russia*

MOLECULAR EVOLUTION OF ANTIOXIDANT GENES IN PLANTS AND ITS RELATIONSHIP WITH CELLULAR LOCALIZATION OF PROTEIN PRODUCTS

P2-6 **Deryabin A.N.**, Trunova T.I.

K. A. Timiryazev Institute of Plant Physiology of the Russian Academy of Sciences, Moscow, Russia

EXPRESSING THE *SUC2* YEAST INVERTASE GENE OF APOPLAST LOCALIZATIONS INCREASE THE COLD RESISTANCE OF POTATO PLANTS

P2-7 **Didorenko S.V.**¹, Abugalieva A.I.^{1,2}, Sidorik I.V.³

¹ *Kazakh Research Institute of Agriculture and Plant Growing, Kazakhstan;*

² *Kazakh National Agrarian University, Kazakhstan;*

³ *Kostanay Research Institute of Agriculture, Kazakhstan*

FAST-RIPENING SOMACLONAL LINES OF SOYBEAN WITHIN THE
CONDITIONS OF NORTH AND SOUTH OF KAZAKHSTAN
(PRODUCTIVITY, DROUGHT TOLERANCE AND GRAIN QUALITY)

- P2-8** **Doroshkov A.V.**, Simonov A.V., Afonnikov D.A., Pshenichnikova T.A.
Institute of Cytology and Genetics Siberian Branch Russian Academy of Sciences, Russia
THE MANIFESTATION AND PHYTOHORMONE RESPONSE OF LEAF
PUBESCENCE GENES IN BREAD WHEAT
- P2-9** Dubovets N.I.¹, **Drobot N.I.**¹, Silkova O.G.², Sycheva E.A.¹, Bondarevich E.B.¹
¹*Institute of Genetics and Cytology, National Academy of Sciences of Belarus, Minsk, Belarus*
²*Institute of Cytology and Genetics, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia*
ASSESSMENT OF WHEAT-RYE HYBRIDS' BREEDING POTENTIAL
WITH THE USE OF MOLECULAR MARKERS
- P2-10** **Efremova O.S.**¹, Kodirova G.A.², Fisenko P.V.¹
¹*Primorsky Scientific Research Institute of Agriculture, Ussuriysk, Russia*
²*All-Russian Scientific Research Institute of Soybean, Blagoveshchensk, Russia*
SELECTION GENETIC EVALUATION OF SOMACLONAL LINES OF
SOYBEAN TOLERANT TO THE HEAVY METALS IONS
- P2-11** **Efremova T.T.**, Chumanova E.V., Trubacheeva N.V.
Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia
THE OBTAINMENT AND USE OF GENETICALLY MARKED COMMON
WHEAT LINES FOR THE STUDY OF GENES CONTROLLING
ADAPTATION AND RESISTANCE TO STRESS
- P2-12** Zhigailov A.V., Kislitsin V.Y., Beisenov D.K., Polimbetova N.S., **Iskakov B.K.**
M.A. Aitkhozhin Institute of Molecular Biology and Biochemistry, Almaty, Kazakhstan
DISCRETE FRAGMENTATION OF 18S rRNA 5'-TERMINUS
MAY REGULATE PROTEIN SYNTHESIS IN PLANTS UNDER
DIFFERENT STRESS CONDITIONS
- P2-13** **Kokhmetova A.**, Kremneva O.², Volkova G.², Keyshilov Zh.¹, Galymbek K.¹,
Kumarbayeva M.¹, Sultanova N.³
¹*RSE Institute of Plant Biology and Biotechnology. Almaty, Kazakhstan*
²*All-Russian Research Institute of Biological Plant Protection RAAS, Krasnodar, Russia*
³*LLC Kazakh Research Institute of plant protection and quarantine, Almaty, Kazakhstan*
THE STRUCTURE OF THE PATHOGEN POPULATION *PYRENOPHORA*
TRITICI-REPENTIS IN THE REPUBLIC OF KAZAKHSTAN AND NORTH
CAUCASUS REGION OF RUSSIA
- P2-14** **Kokhmetova A.**¹, Atishova M.¹, Madenova A.¹, Galymbek K.¹, Keyshilov Zh.¹,
Sharma R.², Yessimbekova M.³, Urazaliev R.³, Aynebekova B.³, Lapochkina I.⁴,
Morgounov A.⁵
¹*Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan.*
²*ICARDA-Tashkent, Uzbekistan, Tashkent, Uzbekistan.*
³*Kazakh Research Institute of Farming, Almalybak, Almaty Reg. Kazakhstan*
⁴*Agricultural Research Institute of Non-Chernozem Zon, Nemchinovka, Russia.*

⁵*International Maize and Wheat Improvement Center (CIMMYT), Ankara, Turkey*
THE STUDY OF RESISTANCE OF WHEAT GERMPLASMS TO STRIPE
AND LEAF RUST USING MOLECULAR MARKERS

- P2-15** **Kozhahmetov K.¹**, Abugalieva A.I.^{1,2}, Rsaliyev A.S.³, Chudinov V.A.⁴
¹*Kazakh research institute of agriculture and plant growing, Kazakhstan*
²*Kazakh National Agrarian University, Kazakhstan*
³*Research Institute for Biological Safety Problems, Kazakhstan*
⁴*Karabalyk Agricultural Experimental Station, Kazakhstan*
RESISTANCE OF SPRING AND WINTER WHEAT WITH THE
INTROGRESSION OF GENETIC MATERIAL (TR.TIMOPHEEVI,
TR.KIHARAE, TR.DICOCCOIDES, AE.TRIARISTATA,
AE.CYLINDRICA) TO ABIOTIC AND BIOTIC STRESS FACTORS OF THE
ENVIRONMENT
- P2-16** **Lee T.¹**, Spankulova Z.¹, Orazbayeva U.¹, Didorenko S.²
¹*Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan*
²*Kazakh Institute of Agriculture and Crop Production, Almalyk, Kazakhstan*
ASPARAGINEMETABOLISM AND PROTEIN CONTENT IN THE
DEVELOPING SOYBEAN SEEDS
- P2-17** **Madenova A.K.**, Kokhmetova A.M., Atishova M.N., Galymbek K., Keishilov Zh.
Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
IDENTIFICATION OF GERMPLASM WINTER WHEAT FOR
RESISTANCE TO YELLOW AND LEAF RUST
- P2-18** **Nerkararyan A.V.**, Minasbekyan L.A., Shahinyan M.A.
*Yerevan State University, Faculty of Biology, Department of Biophysics,
Yerevan, Armenia*
JOINT EFFECT OF GROWTH STIMULATOR OF PLANTS C-2 AND EMI
EHF ON PEROXIDASE TOTAL ACTIVITY OF WHEAT SEEDLINGS
- P2-19** **Orlovskaya O.A.**, Milko L.V., Khotyleva L.V., Kilchevsky A.V.
*Institute of Genetics and Cytology, National Academy of Sciences of Belarus,
Minsk, Belarus*
HIGH MOLECULAR WEIGHT GLUTENIN SUBUNITS IN COMMON
WHEAT LINES WITH ALIEN GENETIC MATERIAL INTROGRESSION
- P2-20** **Rashal I.**, Grauda D, Krasņevska N., Belogradova I., Voskresenska J., Bumbure L.,
Kolodinski A.
Institute of Biology, University of Latvia, Latvia
FLOW CYTOMETRY FOR IDENTIFICATION OF PLANT
GENOMIC RESPONSE IN ECOLOGICAL STUDIES
- P2-21** **Sedlovsky A.I.**, Tjupina L.N, Tjezhnova A.I, Atishova M.
Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
THE CREATION OF DROUGHT-RESISTANT WHEAT SAMPLES USING
THE METHODS OF CLASSICAL GENETICS, TRADITIONAL AND
MARKER SELECTION

- P2-22 Smailov B.B.**, Omasheva M.E., Galiakparov N.N.
Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
PI-LAMP ASSAY FOR DETECTION OF *ERWINIA AMYLOVORA* IN
DIAGNOSIS OF FIRE BLIGHT
- P2-23 Terletskaya N.¹**, Zobova N.², Stupko V.², Iskakova A.¹, Lugovtsova .²,
Kurmanbayeva M.³
¹*Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan,*
²*Federal State Institution of Science "Krasnoyarsk Research Institute of*
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