

**CURRICULUM VITAE**

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Manhattan, KS 66506-5502 <http://www.ksre.ksu.edu/igenomics/>

**Education:**

- 2001 - 2004 Postdoctoral training, Plant Genomics and Molecular biology,  
University of California, Davis, CA, USA
- 1998 Doctor of Philosophy in Animal Physiology  
St. Petersburg State University (St. Petersburg, Russia)  
Dissertation: The study of the adaptational changes of erythrocyte  
electrophoretic mobility in human and animals.  
Advisor: Viacheslav B. Matiushichev
- 1992 Master of Science in Animal Physiology  
Bashkirian State University (Russia).  
Dissertation: Condition of the red blood system of rats under scald  
trauma.  
Advisor: Valentina G. Shamratova
- 1991 Teacher of Biology & Chemistry  
Bashkirian State University (Ufa, Russia)

**Employment:**

- 7/1/2013- current Director of Integrated Genomics Facility, Department of Plant  
Pathology, Kansas State University, Manhattan, Kansas, USA  
Research Associate Professor at the Department of Plant Pathology,  
Kansas State University  
Graduate Faculty at Kansas State University, Interdepartmental  
Genetics program
- 01/2008-  
06/30/2013 Director of Integrated Genomics Facility, Department of Plant  
Pathology, Kansas State University, Manhattan, Kansas, USA  
Research Assistant Professor at the Department of Plant Pathology,  
Kansas State University  
Graduate Faculty at Kansas State University, Interdepartmental  
Genetics program
- 10/2007-01/2008 Research Associate, Department of Plant Pathology, Kansas  
State University, Manhattan, Kansas, USA
- 09/2006- 06/2007 Research Associate, Department of Plant Sciences,

	Laboratory of Jan Dvorak, University of California, Davis, CA, USA
06/2003 - 08/2006	Postgraduate Researcher, Department of Plant Sciences, Laboratory of Jan Dvorak, University of California, Davis, CA, USA
12/2001– 06/2003	Visiting Scientist, Department of Plant Sciences, Laboratory of Jan Dvorak, University of California, Davis, CA, USA
08/1999 – 01/2000	Assistant Professor, Bashkirian State Agricultural University, Ufa, Russia
09/1996 – 08/1999	Teacher of General Biology in Senior High School #45, Ufa, Russia
09/1995 – 12/1998	Graduate Student, Department of Biology, St. Petersburg State University, St. Petersburg, Russia
08/1994 – 08/1996	Research scientist, The laboratory of Population Genetics, Institute of Biochemistry and Genetics of Russian Academy of Sciences, Ufa, Russia
08/1992 – 08/1994	Teacher of General Biology in High School #126, Ufa, Russia

**Research experience:**

2008 – Current

Director of Integrated Genomics Facility

Collaborate with scientists on design and execution of genomics experiments, identify emerging technologies and introduce them to the KSU genomics research community. High – throughput genomics, microarrays, real-time PCR, next generation sequencing technologies. Production of shotgun, paired end, mate pair, cDNA libraries, complexity reduced libraries for the next generation sequencing instruments.

2007 – 2008

Research Associate

Application of next generation sequencing technologies for SNP discovery in polyploid wheat.

2006 – 2007

Research Associate

Development, maintenance and distribution of wheat genomic resources at UC Davis – USDA – ARS Wheat Genomics Center (<http://wheat.pw.usda.gov/wgc/orders.html>).

2005 –2007

Visiting Scientist

Project: Haplotype Polymorphism in the Polyploid Wheats and their Diploid Ancestors (National Science Foundation).

Summary: This is a collaborative project involving seven laboratories across the US. The major goals of the project are the discovery and detection of single nucleotide polymorphisms (SNP) in populations of polyploid wheats and their diploid ancestors, construction of a SNP-based wheat linkage map and characterization of wheat genetic diversity. The data generated by the project is used for development of the public wheat diversity database.

Responsibilities and research activity:

- Sequencing of genes in the populations of polyploid wheats and their diploid ancestors
- SNP discovery

2003 – 2005

Visiting Scientist

Project: Construction of Bacterial Artificial Chromosome (BAC) libraries of diploid ancestors of wheat.

Summary: *Triticum urartu*, *Aegilops speltoides* and *Ae. tauschii* are respectively the immediate diploid sources, or their closest relatives, of the A, B and D genomes of polyploid wheats. BAC libraries for each of these species were constructed, characterized, and high-density filters for library screening were printed. The repetitive and coding DNA content in the genomes of diploid wheats were estimated by BAC end sequencing.

Responsibilities and research activity:

- BAC library construction and high-density filter printing using Q-Bot robotic colony manipulator;
- BAC end sequencing;
- Sequencing of BACs harboring ABC transporter gene locus in *T. durum* and *T. urartu*.

2001 – 2003

Visiting Scientist

Project: Structure and Function of the Expressed Portion of the Wheat Genomes (National Science Foundation).

Summary: This was a collaborative project that involved 10 laboratories in different states. The goal of the project was to decipher the chromosomal location and biological function of 10,000 unique gene motifs in the wheat genomes. The public database generated by the project provided means to study the structure, function, chromosomal location, and evolution of the expressed component of the wheat genomes.

Responsibilities and research activity:

- Physical mapping of expressed sequence tags (ESTs) to chromosomal regions using a set of wheat deletion lines;
- BAC sequencing

1995 – 1998

Graduate Student

Project: The study of the adaptational changes of erythrocyte electrophoretic mobility in human and animals. Ph.D.thesis

Summary: The mean value of erythrocyte electrophoretic mobility is very stable parameter. Study of the human and animal erythrocytes and their electrophoretic mobility under different Pathological Conditions and Extreme Treatment showed that such parameters as skewness and kurtosis describing the distribution of electrophoretic mobility could be used diagnostically.

1990 – 1992

Graduate Student

Project: Study of the rat blood system at scald trauma.

**Professional Societies:**

1. American Association for the Advancement of Science.

**Reviewer:**

Current Genomics

G3

Journal of Next Generation Sequencing & Applications

**Funding:**

1. Utilization of new sequencing technologies for discovery of agronomically important genes. PI: Akhunov ED; Co-PIs: Gill BS, Akhunova AR. Kansas Wheat Commission, 40K (07/01/2010 – 06/30/2011).
2. Using next-generation sequencing for developing molecular markers for mapping wheat-alien introgressions. PI: Akhunov ED; Co-PIs: Gill BS, Friebe B, Akhunova AR. Kansas Wheat Commission, 40K (07/01/2011 – 06/30/2012).
3. Travel grant (\$500) from K-State Arthropod Genomics Center to attend the Plant and Animal Genome XIX Conference in San Diego, (1/15-1/19/2011).
4. Whole Exome Re-Sequencing of Grass Species Valuable for Wheat Breeding in Kansas. PI Akhunov ED; Co-PIs: Gill BS, Friebe B, Akhunova AR. Kansas Wheat Commission, 60K (07/01/2013 – 06/30/2014).

5. Whole exome re-sequencing of grass species valuable for wheat breeding in Kansas. PI Akhunov ED; Co-PIs: Gill BS, Friebe B, Akhunova AR. Kansas Wheat Commission, 60K (07/01/2014 – 06/30/2015).
6. Whole exome re-sequencing of grass species valuable for wheat breeding in Kansas. PI Akhunov ED; Co-PIs: Gill BS, Akhunova AR. Kansas Wheat Commission, 60K (06/25/2015 – 06/30/2016).

**Teaching experience (Kansas State University):**

1. 2008 PLPTH 785, Real-Time PCR workshop (organizer and instructor).
2. 2009 PLPTH 780, Spotted Microarray workshop (organizer and instructor).
3. 2009 BIOCH 767, Recombinant DNA lab (guest lecturer).
4. 2009 PLPTH 785, Real-Time PCR workshop (organizer and instructor).
5. 2009 GS FLX Sequencing Workshop (organizer and instructor)
6. 2010 BIOCH 767, Recombinant DNA lab (guest lecturer).
7. 2010 PLPTH 612, Genomics Applications (guest lecturer).
8. 2010 PLPTH 785, Real-Time PCR workshop (organizer and instructor).
9. 2010 PLPTH 780, Affymetrix Microarray workshop (organizer and instructor).
10. 2011 PLPTH 612, Genomics Applications (guest lecturer).
11. 2011 BIOCH 767, Recombinant DNA lab (guest lecturer).
12. 2011 PLPTH 780, Microarray workshop (organizer and instructor).
13. 2011 PLPTH 785, Real-Time PCR workshop (organizer and instructor).
14. 2012 PLPTH 612, Genomics Applications (guest lecturer).
15. 2012 BIOCH 767, Recombinant DNA lab (guest lecturer).
16. 2012 PLPTH 780, Microarray workshop (organizer and instructor).
17. 2012 PLPTH 785, Real-Time PCR workshop (organizer and instructor).
18. 2013 PLPTH 780, 921c, Gene Expression Analysis workshop (organizer and instructor).
19. 2013 PLPTH 785, Real-Time PCR workshop (organizer and instructor).
20. 2013 Fusarium Laboratory workshop (instructor).
21. 2014 PLPTH 612, Genomics Applications (guest lecturer).
22. 2014 PLPTH 780, 921a, Gene Expression Analysis workshop (organizer and instructor).
23. 2015 PLPTH 612, Genomics Applications (guest lecturer).
24. 2015 PLPTH 780, 921c, Gene Expression Analysis workshop (organizer and instructor).
25. 2015 PLPTH 785, 921b, Real-Time PCR workshop (organizer and instructor).

***Peer review publications:***

***Total is 22 publications cited 882 times (google scholar) by other publications, 08/20/2015.***

1. 2015 Schwartz AR, Potnis N, Timilsina S, Wilson M, Patane J, Martins J, Minsavage GV, Dahlbeck D, **Akhunova A**, Almeida N, Vallad GE, Barak JD, White FF, Miller SA, Ritchie D, Goss E, Bart RS, Setubal JC, Jones JB and Staskawicz BJ. Phylogenomics of *Xanthomonas* field strains infecting pepper and tomato reveals diversity in effector repertoires and identifies determinants of host specificity. *Front. Microbiol.* 6:535. Contribution no. 16-034-J from the Kansas Agricultural Experiment Station.
2. 2015 Jordan KW, Wang S, Lun Y, Gardiner LJ, MacLachlan R, Hucl P, Wiebe K, Wong D, Forrest KL, Sharpe AG, Sidebottom CHD, Hall N, Toomajian C, Close T, Dubcovsky J, **Akhunova A**, Talbert L, Bansal UK, Bariana HS, Hayden MJ, Pozniak C, Jeddelloh JA, Hall A, Akhunov E. A haplotype map of allohexaploid wheat reveals distinct patterns of selection on homoeologous genomes. *Genome Biology* 2015, 16:48. Contribution no. 15-338-J from the Kansas Agricultural Experiment Station.
3. 2014 Reddy SK, Liu S, Rudd JC, Xue Q, Payton P, Finlayson SA, Mahan J, **Akhunova A**, Holalu SV, Lu N. Physiology and transcriptomics of water-deficit stress responses in wheat cultivars TAM 111 and TAM 112. *Journal of Plant Phys.* 2014, 171:1289-1298. Contribution no. 15-230-J from the Kansas Agricultural Experiment Station.
4. 2014 Henry IM, Nagalakshmi U, Lieberman MC, Ngo KJ, Krasileva KV, Vasquez-Gross H, **Akhunova A**, Akhunov E, Dubcovsky J, Tai TH, Comai L. Efficient genome-wide detection and cataloging of EMS-induced mutations using next-generation sequencing and exome capture. *The Plant Cell* 2014, 26:1382-1397. Contribution no. 15-060-J from the Kansas Agricultural Experiment Station.
5. 2014 Wang S, Wong D, Forrest K, Allen A, Chao S, Huang BE, Maccaferri M, Salvi S, Milner SG, Cattivelli L, Mastrangelo AM, Whan A, Stephen S, Barker G, Wieseke R, Plieske J, IWGSC, Lillemo M, Mather D, Appels R, Dolferus R, Brown-Guedira G, Korol A, **Akhunova AR**, Feuillet C, Salse J, Morgante M, Pozniak C, Luo MC, Dvorak J, Morell M, Dubcovsky J, Ganai M, Tuberosa R, Lawley C, Mikoulitch I, Cavanagh C, Edwards KJ, Hayden M, Akhunov E. Characterization of polyploid wheat genomic diversity using a high-density 90 000 single nucleotide polymorphism array. *Plant Biotechnol. J.* 2014, 12:787-796. Contribution no. 15-059-J from the Kansas Agricultural Experiment Station.
6. 2013 Reddy SK, Weng Y, Rudd JC, **Akhunova A**, Liu S. Transcriptomics of induced defense responses to greenbug aphid feeding in near isogenic wheat lines. *Plant Science* 2013, 212:26-36. Contribution no. 14-099-J from the Kansas Agricultural Experiment Station.
7. 2013 Cavanagh CR, Chao S, Wang S, Huang BE, Stephen S, Kiani S, Forrest K, Saintenac C, Brown-Guedira GL, **Akhunova A**, See D, Bai G, Pumphrey M, Tomar L, Wong D, Kong S, Reynolds M, da Silva ML, Bockelman H, Talbert L, Anderson JA, Dreisigacker S,

- Baenziger S, Carter A, Korzun V, Morrell PL, Dubcovsky J, Morell MK, Sorrells ME, Hayden MJ, Akhunov E. Genome-wide comparative diversity uncovers multiple targets of selection for improvement in hexaploid wheat landraces and cultivars. *Proc Natl Acad Sci USA* 2013, 110:8057-8062. Contribution no. 14-232-J from the Kansas Agricultural Experiment Station.
8. 2013 Akhunov E, Sehgal S, Liang H, Wang S, **Akhunova A**, Kaur G, Li W, Forrest K, See D, Šimková H, Ma Y, Hayden M, Luo M, Faris J, Dolezel J, Gill B. Comparative analysis of syntenic genes in grass genomes reveals accelerated rates of gene structure and coding sequence evolution in polyploid wheat. *Plant Physiol.* 2013, 161:252-265. Contribution no. 13-210-J from the Kansas Agricultural Experiment Station.
9. 2012 Akhunov E, Chao S, Saintenac C, Kiani S, See D, Brown-Guedira G, Sorrells M, **Akhunova A**, Dubcovsky J, Cavanagh C, Hayden M. High-throughput approaches to genome-wide analysis of genetic variation in polyploid wheat. *Canadian Journal of Plant Science* 2012, 92:596-596.
10. 2010 Akhunov ED, **Akhunova AR**, Anderson OD, Anderson JA, Blake N, Clegg MT, Coleman-Derr D, Conley EJ, Crossman CC, Deal KR, Dubcovsky J, Gill BS, Gu YQ, Hadam J, Heo HY, Huo N, Lazo GR, Luo MC, Ma YQ, Matthews DE, McGuire PE, Morrell P, Qualset CO, Renfro J, Tabanao D, Talbert LE, Tian C, Toleno D, Warburton M, You FM, Zhang W, Dvorak J. Nucleotide diversity maps reveal variation in diversity among wheat genomes and chromosomes. *BMC Genomics* 2010, 11:702.
11. 2010 **Akhunova AR**, Matniyazov RT, Liang H, Akhunov ED. Homoeolog-specific transcriptional bias in allopolyploid wheat. *BMC Genomics* 2010, 11:505.
12. 2009 Luo MC, Deal KR, Akhunov ED, **Akhunova AR**, Anderson OD, Anderson JA, Blake N, Clegg MT, Coleman-Derr D, Conley EJ, Crossman CC, Dubcovsky J, Gill BS, Gu YQ, Hadam J, Heo HY, Huo N, Lazo G, Ma Y, Matthews DE, McGuire PE, Morrell PL, Qualset CO, Renfro J, Tabanao D, Talbert LE, Tian C, Toleno DM, Warburton ML, You FM, Zhang W, Dvorak J. Genome Comparisons Reveal a Dominant Mechanism of Chromosome Number Reduction in Grasses and Accelerated Genome Evolution in Triticeae. *Proc Natl Acad Sci USA* 2009, 106:15780-15785.
13. 2007 Akhunov ED, **Akhunova AR**, Dvorak J. Mechanisms and Rates of Birth and Death of Dispersed Duplicated Genes during the Evolution of a Multigene Family in Diploid and Tetraploid Wheats. *Mol Biol Evol* 2007, 24:539-550.
14. 2006 Dvorak J, Akhunov ED, **Akhunova AR**, Deal KR, Luo MC. Molecular Characterization of a Diagnostic DNA Marker for Domesticated Tetraploid Wheat Provides Evidence for Gene Flow from Wild Tetraploid Wheat to Hexaploid Wheat. *Mol Biol Evol* 2006, 23:1386-1396.

15. 2005 Akhunov ED, **Akhunova AR**, Dvorak J. BAC libraries of *Triticum urartu*, *Aegilops speltoides* and *Ae. Tauschii*, the diploid ancestors of polyploidy wheat. *Theor Appl Genet* 2005, 111:1617-1622.
16. 2004 Matiushichev VB, Shamratova VG, **Akhunova AR**. Correlation of erythrocyte electrophoretic mobility and the velocity of their sedimentation in the norm and renal pathology. *Klin Lab Diagn* 2004, 4:22-24.
17. 2003 Akhunov E D, **Akhunova AR**, Linkiewicz AM, Dubcovsky J, Hummel D, Lazo G, Chao S, Anderson OD, David J, Qi L, Echalié B, Gill BS, Miftahudin, Gustafson JP, La Rota CM, Sorrells ME, Zhang D, Nguyen HT, Kalavacharla V, Hossain K, Kianian SF, Peng J, Lapitan NLV, Wennerlind EJ, Nduati V, Anderson JA, Sidhu D, Gill KS, McGuire PE, Qualset CO, Dvorak J. Synteny perturbations between wheat homoeologous chromosomes caused by locus duplications and deletions correlate with recombination rates along chromosome arms. *Proc Natl Acad Sci USA* 2003, 100:10836-10841.
18. 2001 Matiushichev VB, Shamratova VG, **Akhunova AR**. Effect of strophanthin on the electrophoretic mobility of blood erythrocytes in adults and children. *Russ Fiziol Zh Im I M Sechenova* 2001, 87:248-253.
19. 2000 Matiushichev VB, Shamratova VG, **Akhunova AR**, Gutsaeva DR. Sex and age characteristics of the erythrocyte electrophoretic mobility distribution. *Zh Evol Biokhim Fiziol* 2000, 36:273-275.
20. 1997 Matiushichev VB, Shamratova VG, **Akhunova AR**. Correlation between electrophoretic mobility of human blood erythrocytes and hemoglobin level in health and in renal pathology. *Fiziol Chelovek* 1997, 23:110-112.
21. 1997 Matiushichev VB, Shamratova VG, **Akhunova AR**, Gerchikov AI. Electrophoretic mobility and oxidizing status of rat blood erythrocytes at scald trauma. *Tsitologiya* 1997, 39:177-180.
22. 1996 Matiushichev VB, Shamratova VG, **Akhunova AR**. The electrophoretic mobility of the erythrocytes in rats during body adaptation to low-temperature exposure. *Tsitologiya* 1996, 38:1171-1173.

### ***Other publications:***

1. 2011 Akhunov E, Chao S, Catana V, See D, Brown-Guedira G, **Akhunova A**, Dubcovsky J, Cavanagh C, Hayden M. New tools for wheat genetics and breeding: Genome-wide analysis of SNP variation. Proceedings of BGRI Technical Workshop, June 13-16, St. Paul, MN, USA.
2. 2008 **Akhunova A**, Arbieva Z, Grove D, Kubista M, Shipley G. Real-Time PCR Tech Guide. Experts give their advice on how to conduct Real-Time PCR. *Genome Technology*.
3. 2008 Akhunov ED, **Akhunova AR**, Anderson OD, Anderson JA, Blake N, Clegg MT, Coleman-Derr D, Conley EJ, Crossman CC, Deal KR,



- Dubcovsky J, Gill BS, Gu YQ, Hadam J, Heo HY, Huo N, Lazo GR, Luo MC, Ma YQ, Matthews DE, McGuire PE, Morrell P, Qualset CO, Renfro J, Reynolds S, Tabanao D, Talbert LE, Tian C, Toleno D, Warburton M, You FM, Zhang W, Dvorak J. Purifying Selection and Gene Conversion in Polyploid Wheat Evolution. Proceedings of the 11th International Wheat Genetics Symposium, Aug 24-29, Brisbane, Australia.
4. 2003 Dvorak J, Akhunov ED, **Akhunova AR**, Luo MC, Linkiewicz AM, Dubcovsky J, Hummel D, Lazo G, Chao S, Anderson OD, David J, Qi L, Echalié B, Gill BS, Miftahudin, Gustafson JP, La Rota M, Sorrells M, Zhang D, Nguyen HT, Kalavacharla V, Hossain K, Kianian SF, Peng JH, Lapitan NLV, Wennerlind EJ, Nduati V, Anderson JA, Sidhu D, Gill KS, Choi DW, Close TJ, McGuire PE, Qualset CO. New Insights into the Organization and Evolution of Wheat Genomes. Proceedings of the 10th International Wheat Genetics Symposium, Paestum, Italy, 1:248-253.

***Book chapters:***

1. 2013 Kiani S, **Akhunova A**, Akhunov E. Application of next-generation sequencing technologies for genetic diversity analysis in cereals. Cereal Genomics II. Editors: Gupta PK and Varshney RK, Springer, 2<sup>nd</sup> ed. VIII, 438 p. Contribution no. 14-101-J from the Kansas Agricultural Experiment Station.

***Oral presentations, meeting abstracts:***

1. 2015 Akhunov E, Jordan K, Wang S, Lun Y, Akhunova A, Talbert L, Hayden M. Population Genomics of Allopolyploid Wheat Adaptation. The annual meeting of the American Society of Plant Biologists (ASPB), July 26-30, Minneapolis, Minnesota, USA.
2. 2015 Jordan K, Wang S, Lun Y, Chao S, Dubcovsky J, Sherman J, **Akhunova A**, Talbert L, Akhunov E. Sequence-Based Map Development of Wheat NAM Populations. Plant and Animal Genome meeting, Jan 10-14, San Diego, CA, USA.
3. 2014 Akhunov E, Salcedo A, Lou Y, Zhang W, Li C, **Akhunova A**, Rutter W, Wang S, Cantu D, Rouse MN, Dubcovsky J. Functional genomics of stem rust - wheat pathosystem. USDA Project Director meeting for Plant Biology Programs, May 14-15, Washington DC, USA.
4. 2014 Jordan K, Wang S, Gardiner L, Lun Y, Hall N, Dubcovsky J, Pozniak C, **Akhunova A**, Talbert L, Hall A, Akhunov E. A First Generation Haplotype Map of Wheat Genome. Plant and Animal Genome meeting, Jan 11-15, San Diego, CA, USA.
5. 2014 Wang S, Jordan K, Lun Y, **Akhunova A**, Hall A, Pozniak C, Cavanagh C, Chao S, Hayden M, Talbert L, Akhunov E.

- Application of Haplotype-Based Genetics in Wheat. Plant and Animal Genome meeting, Jan 11-15, San Diego, CA, USA.
6. 2014 Gray M, Shelton J, Chellapilla S, Bello N, Brown S, **Akhunova A**, Liang H, Garrett K, Akhunov E, Morgan T, Johnson L. Transcriptional differences of mesic and xeric ecotypes of an ecologically-dominant prairie grass *Andropogon gerardii* to abiotic stress. Plant and Animal Genome meeting, Jan 11-15, San Diego, CA, USA.
  7. 2014 Jordan K, Wang S, Gardiner L, Lun Y, Hall N, Dubcovsky J, Pozniak C, **Akhunova A**, Talbert L, Hall A, Akhunov E. A Diversity Map of the Hexaploid Wheat Genome. Plant and Animal Genome meeting, Jan 11-15, San Diego, CA, USA.
  8. 2014 Shelton J, Herndon N, Gray M, Liang H, Durrett T, Johnson L, **Akhunova A**, Brown S. Multi-K-Mer de novo Transcriptome Assembly, Validation, and Count Summarizing for Four Plant Taxa. Plant and Animal Genome meeting, Jan 11-15, San Diego, CA, USA.
  9. 2014 Akhunov E, Sehgal S, Jordan K, **Akhunova A**, Lun Y, Liang H, Gill B, Wang S. Genomic Redundancy in Young Polyploids: Does It Play an Important Role in Adaptation? Plant and Animal Genome meeting, Jan 11-15, San Diego, CA, USA.
  10. 2013 Akhunov ED, Wans S, Jordan K, Lun Y, **Akhunova A**, Chao S, Pozniak C, Cavanagh C, Dubcovsky J, Talbert L, Hayden M. A haplotype map of wheat and its utility for wheat genetics and breeding. The 12<sup>th</sup> International Wheat Genetics Symposium, Sept 8-14, Yokohama, Japan.
  11. 2013 Akhunov E, Saintenac C, Zhang W, Salcedo A, Liang H, Cantu D, **Akhunova A**, Rouse M, Trick H, Dubcovsky J. Functional Genomics of stem rust-wheat pathosystem. USDA Project Director meeting for Plant Biology Programs, May 22-23, Washington DC, USA.
  12. 2013 Akhunov E, Liang H, Saintenac C, Zhang W, Salcedo A, Lun Y, Xu SS, Bowden RL, Szabo LJ, Cantu D, **Akhunova A**, Rouse M, Dubcovsky J. Genomic Architecture Of Rust-Wheat Interaction: Implications For Breeding Disease-Resistant Crops. W773. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
  13. 2013 Johnson L, Gray M, **Akhunova A**, Brown SJ, Chellapilla S, Morgan TJ, Garrett K, Liang H, Akhunov E. Phenotypic and genetic variation in a dominant forage and biofuel grass along the Great Plains' precipitation gradient: a reciprocal garden approach. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
  14. 2013 Reddy SK, Liu S, **Akhunova A**, Weng Y, Rudd J, Xue Q, Payton P, Mahan J. Comparative Transcriptomics Involving Greenbug and Water-Deficit Stress Responses in Hard-Red Winter Wheat. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
  15. 2013 Jordan K, Wang S, **Akhunova A**, Lun Y, Saintenac C, Pozniak C, Hall A, Talbert L, Akhunov E. Targeted Re-Sequencing Of

- Polyploid Wheat Genome. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
16. 2013 Akhunov E, Wang S, Chao S, Brown-Guedira G, See D, **Akhunova A**, Forrest K, Allen AM, Tuberosa R, Morgante M, Cattivelli L, Dvorak J, Luo M, Sorrells M, Feuillet C, Salse J, Dubcovsky J, Edwards KJ, Ganai MW, Cavanagh C, Hayden MJ. Analysis of Genome-Wide Patterns of Genetic Variation Across Wheat Genome using 90,000 SNP iSelect Assay. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
17. 2013 Akhunov E, Liang H, Saintenac C, Zhang W, Salcedo A, Lun Y, Xu SS, Bowden RL, Szabo LJ, Cantu D, **Akhunova A**, Rouse M, Dubcovsky J. Genomic Architecture of Rust-Wheat Interaction: Implications for Breeding Disease-Resistant Crops. P0258. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
18. 2013 Wang S, **Akhunova A**, Lun Y, Chao S, See D, Brown-Guedira G, Chalhoub B, Akhunov E. Homoeologous imbalance of gene expression in polyploid wheat. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
19. 2013 Shelton J, Gray M, Brown SJ, Chellapilla S, **Akhunova A**, Akhunov E, Liang H, Johnson L. De novo transcriptome profiling of two edaphically and phenotypically divergent grasses: dominant forage grass big bluestem *Andropogon gerardii* and drought- sand bluestem *Andropogon gerardii* ssp. *Hallii*. Plant and Animal Genome meeting, Jan 12-16, San Diego, CA, USA.
20. 2012 **Akhunova A**. K-State Integrated Genomics Facility: Whole Genome in 24 hours? Yes, we can! Department of Plant Pathology seminar. KSU, Manhattan, KS Sept. 27th.
21. 2012 Krishna Reddy S, **Akhunova A**, Rudd JC, Devkota R, Xue Q, Payton P, Mahan J, Liu S. Gene Expression Profiling of Water Deficit Stress Responses in Widely Adapted Wheat Cultivars TAM 111 and TAM 112. The annual meeting of the American Society of Plant Biologists (ASPB), July 20-24, Austin, Texas, USA.
22. 2012 Akhunov E, Wang S, Chao S, Stephen S, Huang E, Saintenac C, See D, Carter A, Brown-Guedira G, Forrest K, Wong D, Pumphrey M, Bai G, Bowden R, Baenzinger PS, Talbert L, Anderson JA, Dreisigacker S, Chen J, Campbell K, **Akhunova A**, Korzun V, Sorrells M, Dubcovsky J, Cavanagh C, Hayden M. Nonparametric tests reveal multiple selection events in the wheat genome. International Triticeae Mapping Initiative meeting, June 24-29, Fargo, North Dakota, USA.
23. 2012 Krishna Reddy S, Weng Y, Rudd JC, **Akhunova A**, Liu S. Transcriptome Profiling of Defense Responses to Greenbug Feeding in Wheat. Plant and Animal Genome meeting, Jan 14-18, San Diego, CA, USA.
24. 2012 Dubcovsky J, Saintenac C, Zhang W, Li C, Cantu D, **Akhunova A**, Liang H, Rouse M, Akhunov E. New approaches to rust resistance in

- wheat. Plant and Animal Genome meeting, Jan 14-18, San Diego, CA, USA.
25. 2012 Akhunov E, Sehgal S, Liang H, Wang S, **Akhunova A**, Li W, Forrest K, See D, Simkova H, Hayden M, Luo MC, Faris J, Dolezel J, Gill BS. Alternative splicing and coding sequence evolution in polyploid wheat. Plant and Animal Genome meeting, Jan 14-18, San Diego, CA, USA.
26. 2012 Akhunov E, Wang S, Catana V, Kiani S, Saintenac C, Hayden M, Cavanagh C, Forrest K, **Akhunova A**, Dubcovsky J, Brown-Guedira G, Coram T, Sorrells M, See D, Chao S. Genome-wide patterns of SNP variation in wheat: tools and resources for breeding and studying genetics of agronomic traits. USDA program directors meeting, Jan 13<sup>th</sup>, San Diego, CA, USA.
27. 2011 **Akhunova A**. K-State Integrated Genomics Facility: bringing the power of genomics to your lab. Department of Plant Pathology seminar. KSU, Manhattan, KS. Dec 8<sup>th</sup>, 2011.
28. 2011 Akhunov E, Chao S, Saintenac C, Kiani S, See D, Brown-Guedira G, Sorrells M, **Akhunova A**, Dubcovsky J, Cavanagh C, Hayden M. High-throughput approaches to genome-wide analysis of genetic variation in polyploidy wheat. 1<sup>st</sup> Canadian Wheat Symposium, Nov. 30- Dec. 2, Manitoba, Canada.
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