

**Dr. Mauricio Ulloa**  
**Research Geneticist**  
**USDA-ARS, PA, CSRL,**  
**Plant Stress and Germplasm Development Research**  
**3810 4<sup>th</sup> Street**  
**Lubbock, TX 79415**  
**Office: 806-723-5217**  
**Email: Mauricio.Ulloa@ars.usda.gov**

**Home Address:**  
**4805 1<sup>st</sup> Street**  
**Lubbock, TX 79416**  
**Cell: 661-364-4386**

### **Educational Background**

- |           |  |
|-----------|--|
| 1980-1984 | College of Agriculture, Hermanos Escobar, City of Juarez, Chih. Mex; major, Plant Breeding; B.S. 1984. |
| 1988-1990 | New Mexico State University at Las Cruces; major, Horticulture; M.S. 1990.                             |
| 1990-1993 | New Mexico State University at Las Cruces; major, Agronomy; Ph.D. 1993.                                |

### **Research Experience**

- |              |   |
|--------------|---|
| 1988-1993    | Graduate Research Assistant, Dept. of Agronomy and Horticulture, New Mexico State University, Las Cruces, NM. |
| 1993-1996    | Assistant Scientist, Research Dept. Sunseeds Co., El Centro, CA.  |
| 1996         | Onion Research Specialist, Shamrock Seed Co., Las Cruces, NM.   |
| 1996-1998    | Research Associate, Dept. of Agronomy and Horticulture, New Mexico State University, Las Cruces, NM.          |
| 1998-2001    | GS-12, Research Geneticist (Plants), USDA, ARS, Stoneville, MS.   |
| 2001-2006    | GS-12, Research Geneticist (Plants), USDA, ARS, Shafter, CA.  |
| 2006-2010    | GS-13, Research Geneticist (Plants), USDA, ARS, Shafter, CA.  |
| 2010-2012    | GS-14, Research Geneticist (Plants), USDA, ARS, Shafter, CA.  |
| 2012-2013    | GS-14, Research Geneticist (Plants), USDA, ARS, Lubbock, TX.  |
| 2013-Present | GS-14, Research Geneticist (Plants), USDA, ARS, Lubbock, TX.  |

### **Guidelines and Originality**

### C. Demonstrated Originality

A high degree of knowledge, unique skills and abilities, and insight were demonstrated by Dr. Ulloa: in interpreting the biochemical processes involved in quantitative traits; in the understanding of molecular genetics and diverse approaches that he used to address genomics and breeding challenges in two different pollinated crops; in understanding the importance of preservation and utilization of genetic diversity to reduce crop vulnerability; in expanding the genetic linkage maps used to manipulate the cotton genome; in expanding the genetic base of cotton through germplasm releases; and identifying/developing molecular markers to speed the breeding process. His novel research approaches established that introgression of genes from *Allium fistulosum* into *A. cepa* was not possible when *A. fistulosum* was used as a female-seed parent because of cytoplasm and chromosomal incompatibilities, solving a problem that existed for 25 years. In addition, exploration/collection trips made by Dr. Ulloa to the country of Mexico, which is one of the primary centers of diversity of cotton, yielded additional wild germplasm from seven known diploid D cotton (*Gossypium*) species, re-captured the last remnants of an endangered rare diploid species of *Gossypium* (D<sub>8</sub>), and discovered at least one new species of the D genome. Moreover, during his tenure at the former USDA-ARS, Research Station, Shafter, CA, he reestablished the cotton genetics and breeding program after a 25+ year hiatus. He also discovered/developed/released germplasm with improved yield and fiber quality characteristics, and with improved resistance to Fusarium wilt (FOV) race 4. Some of the germplasm releases, SJ-07P-FR01-FR04 lines were the first publicly available lines possessing resistance to FOV race 4, and additional five lines, SJ-FR05-FR09, were more recently released. Dr. Ulloa also developed molecular markers such as microsatellites or SSRs and detected quantitative trait loci (QTL) associations with important cotton traits such as fiber quality characteristics and disease resistance. He was the first to report the genome placement of the root-knot nematode (RKN - *rkn1*) resistance (R) gene as well as the position of R gene-regions of RKN in chromosome 11; first to report the identification of closely linked SSR markers to RKN, FOV races 1 and 4 resistance and transgressive effect for assisting breeding and the placement of these marker-genes on several cotton chromosomes; and first to report the placement of resistance gene-regions of FOV race 1 and race 4 in chromosomes 16, and 14/17 with possible chromosome-homeolog interaction.

### Contributions, Impact, and Stature

Dr. Mauricio Ulloa has more than 25 years of professional research experience. After working as a geneticist/breeder for the private sector for 4 years, he assumed the present position as Research Geneticist effective June 28, 1998; then transferred to Shafter CA in December of 2001; and then transferred to Lubbock, TX in June 2012. His research productivity is well documented in more than 150 publications, including more than 50 peer-reviewed articles in prominent journals, 16 germplasm line-releases (10 as a senior author), four book chapters (two as a senior author), and more than 35 presentations at national and international conferences. Evidence of the value of the incumbent's research includes more than one million dollars of extramural funding in the past 11 years. His research experiences and expertise has attracted Ph.D. students and postdocs

to the fields of cotton breeding, genetics, and genomics. Currently, he is mentoring two Ph.D. and two M.S. students. Dr. Ulloa has developed an international reputation as an authority on cotton breeding, genetics, and genomics. He has active, ongoing, and productive collaborations with national and international plant scientists. His reputation led to the request for his guidance and support of the possibility of establishment of a new cotton breeding and genomics research program from scientists in Peru. Through his vast experience and years of work, he established a research collaboration on Fusarium wilt resistance with scientists of the Academy of Sciences, Republic of Uzbekistan, and is further evidenced by: incumbent was invited to participate in a meeting entitled “Uzbekistan – U.S. Life Sciences Collaboration, Strengthening Relations and Enhancing Cooperation” sponsored by the American Association for the Advancement of Science (AAAS) and the Academy of Science of Uzbekistan (September, 2012 in Tashkent, Uzbekistan and May, 2013 at the AAAS headquarter, Washington, DC, U.S.) In addition, the incumbent was requested by the University of California cooperators and California Cotton Growers Association to continue supporting the breeding/genetics effort of identifying/developing resistant FOV race 4 germplasm in the San Joaquin Valley.

#### **Additional Information**

- a. Nominated to serve as an officer for the Germplasm Workgroup for the International Cotton Genome Initiative (ICGI) organization, 2005.
- b. Chairman of the Cotton Improvement Conference, Beltwide Cotton Conferences, 2008.
- c. Chairman of the National Cotton Crop Germplasm Committee (CCGC), 2008–2015.
- d. Nominated to serve as Co-Chair for the Structural Genomics Workgroup for the International Cotton Genome Initiative (ICGI) organization, 2013.

#### **Participation in Professional Meetings, Technical Conferences, Workshops, etc.**

- a. The International Plant and Animal Genome Conferences, PAG III–XVII (1995–2016). Attended 15 meetings and made 15 presentations.
- b. Beltwide Cotton Conferences (1997–Present). Attended 17 meetings, moderated paper sessions (2000, 2002, 2010), and made 17 presentations.
- c. Member of the Agronomy and Crop Science Society of America (1996–Present). Attended 10 meetings and made 10 presentations.
- d. Member of the American Society of Plant Biologists (2003–Present).

- e. Member of the American Association for the Advancement of Science (2012-Present)
- f. Member of the International Cotton Genome Initiative (ICGI) (2001-Present). Attended five meetings and made three presentations.
- g. Member of the National Cotton Crop Germplasm Committee (2002–Present). Attended 12 meetings, made four presentations and chaired five meetings.
- h. Combined meeting of the Cotton Southern Regional Exchange Group-61 (SRIEG-61 and SRDC-9801) and Regional Project S-258 (new S-304) meeting (1998-2010). Attended five meetings and made four presentations.
- i. Cotton Breeders' Tour sponsored by Cotton Incorporated U.S. (1999-Present). Attended five meetings, co-organized the Breeder's Tour in California (2008) and one site in Lubbock, TX (2013), and made four presentations.
- j. Illumina MiSeq Sequencer user training - protocols and software analysis – Texas Tech University, Lubbock, TX, (2012) Attended one user complete training.
- k. Gordon Conference on Quantitative Genetics & Biotechnology. Attended one meeting.
- l. University of California, Shafter Research and Extension Center Cotton Field Days (2002–2010). Attended seven years and made seven presentations.
- m. University of California, West Side Research and Extension Center Cotton Field Days (2003–2011). Attended five years and made five presentations.
- n. Texas Tech University Farm Field Day (2013). Attended two and made two presentations.
- o. Cotton Incorporated, California Cotton Growers Association, and San Joaquin Cotton Board, Meetings (2003–2012) Attended 32 meetings and made 22 presentations.
- p. World Cotton Research Conference 4, (2007). Lubbock, TX, U.S.A., Attended one meeting and made two presentations.

### **Advisory and Consultant Activities**

#### **1. Professional Advisory and Consulting Activities**

- a. Provided professional advice on the development of the Cotton Microsatellite Database (CMD) as an Advisory Board of the Committee of CMD (<http://www.cottonmarker.org>). 2003 – 2010.

- b. Provided professional advice to the Research Advisory Committee (RAC) as a member for the Research & Extension Center, Shafter CA, (review proposals and allocate field and laboratory space for the center), 2002–2010.
- c. Advisor to the Joint Cotton Breeding Committee Natl. Cotton Council. Am., Memphis, Tennessee, 2007 – 2015.
- d. Advisor to the Cotton Winter Nursery Steering Committee Natl. Cotton Council. Am., Memphis, Tennessee, 2007 – 2015.
- e. Advisor to the Board as Ex-Officio Board Member of the California Cotton Board 2007 – 2012.
- f. Provide professional advice to the California Cotton Growers Association and Cotton Incorporated in breeding/genetics/ genomic Fusarium wilt research. 2012 – Present.
- g. Reviewed more than 65 manuscripts (2006 – 2015) for Crop Science, Journal of Cotton Science, Journal of Theoretical and Applied Genetics, Journal of Molecular Genetics and Genomics, Genome Journal, the Journal of Heredity, Journal of Agricultural Science, Euphytica, Journal of Genetics and Genomics, BMC Plant Biology, Molecular Breeding, PlosOne, Agronomy Journal, and Crop Sci. Journal.
- h. Reviewed three applications as a Subject-Matter Expert (SME) to determine recommendation for funding project proposals related to cotton improvement, USDA-FAS/International Cooperation & Development. (2000).
- i. Mentor one postdoc, three Ph.D., three M.S., and two undergraduate students; Incumbent is an adjunct faculty and serves as a member in two Ph.D. and two M.S. graduate committees in the Plant and Soil Science department Texas Tech University, Lubbock, TX. 2013- Present.

### **Other Significant Information**

- a. Assigned by the Area Office as a Recruitment/Publicity officer for the Hispanic Employment Program Committee for the Mid South, USDA-ARS (2000–2001); assigned by the Area Office as an Intern supervisor for the summer of 2000 for The Hispanic Association of Colleges and Universities (HACU) National Internship Program (Mentoring a student); and assigned by the Area Office as a Supervision/Liaison for the Summer of 2000 Hispanic Association of Colleges and Universities (HACU) National Internship Program.

- b. Pacific West Area Workforce Diversity Committee member (2005–2008). Attended three meetings.
- c. Functioned as a mentor/supervisor for Ms. Diana Delgadillo as part of USDA-Hispanic Serving Institution (HSI) Student Ambassador Program. Summer 2009.
- d. Society for the Advance of Chicanos and Native Americans in Science (SACNAS) (2007-Present). Attended one meeting, made one presentation, and organized a Cotton Genomic Symposium.
- e. Appointed as an Adjunct Associate Professor in the Department of Genetics and Biochemistry, College of Agriculture, Forestry, and Life Sciences, Clemson Univ., 2003–2006.
- f. Appointed as an adjunct Associate in the Agricultural Experiment Station in the Department of Agronomy and Range Science, College of Agricultural and Environmental Sciences, UC-DAVIS, 2002–2006.
- g. Appointed as an adjunct graduate faculty in the Department of Plant and Soil Sciences, Texas Tech University, Lubbock, TX, 2013–Present.
- h. DNA Sequences for Genes or Partial Sequence of Genes entered into GenBank (<http://www.ncbi.nlm.nih.gov>):
  - **Ulloa, M.** and Meredith Jr, W.: A family of retrotransposon-like sequences associated with leaf shape difference in cotton (AF277103, AF277099, AF277102, AF277101, and AF277100).
  - Teliercio, E.W. and **Ulloa, M.:** The DNA sequence of a Gypsy Element from *Gossypium hirsutum* and characterization of Gypsy Elements in three *Gossypium* Species (AY181254, AY260960, AY260963, AY260964, AY260962, AY260961, and Y260959).
  - **Ulloa, M.** and Roberts P.A.: DNA sequences from two SSRs (CIR316 and MUCS088) linked to root-knot nematode resistance genes from diverse cottons (FJ599673-FJ599698).
  - **Ulloa, M.** and Roberts, P.A.: DNA sequences and composition from 12 BAC clones-derived MUSB SSR markers mapped to cotton (*Gossypium hirsutum* L. x *G. barbadense* L.) chromosomes 11 and 21 (KM396694 – KM396705)

## Selected Publications

1. Biles, C.L., Holland, M., **Ulloa-Godinez, M.** Clason, D. and Corgan, J. *Pyrenochaeta terrestris* microsclerotia production and pigment on onion roots. HortScience. 27 (11):1213-1216. 1992.
2. **Ulloa-G, M.**, Corgan, J.N. and Dunford, M. Chromosome characteristics and behavior differences in *Allium fistulosum* L., *A. cepa* L., their F<sub>1</sub> hybrid, and selected backcross progeny. Theor. Appl. Genet. 89 (5):567-571. 1994.
3. **Ulloa-G, M.**, Corgan, J.N. and Dunford, M. Evidence for nuclear-cytoplasmic incompatibility between *Allium fistulosum* and *A. cepa*. Theor. Appl. Genet. 90 (5):746-754. 1995.
4. **Ulloa, M.**, Cantrell, R.G., Percy, R.G., Zeiger, E. and Lu Z. QTL analysis of stomatal conductance and relationship to lint yield in an interspecific cotton. J. Cot. Sci. 4 (1):10-18. 2000.
5. **Ulloa, M.** and Meredith Jr., W.R. Genetic linkage map and QTL analysis of agronomic and fiber quality traits in an intraspecific population. J. Cot. Sci. 4 (3):161-170. 2000.
6. **Ulloa, M.**, Meredith Jr., W.R., Shappley, Z.W. and Kahler, A.L. RFLP genetic linkage maps from four F<sub>2,3</sub> populations and a joinmap of *Gossypium hirsutum* L. Theor. Appl. Genet. 104 (2/3):200-208. 2002.
7. Taliercio, E. and **Ulloa, M.** The DNA Sequence of a Gypsy Element from *Gossypium hirsutum* L. and characterization of Gypsy elements in three *Gossypium* species. DNA SEQUENCE. 14 (4):319-325. 2003.
8. **Ulloa, M.**, Saha, S., Jenkins, J.N., Meredith Jr., W.R., McCarty Jr., J.C. and Stelly, D.M. Chromosomal assignment of RFLP linkage groups harboring important QTLs on an intraspecific cotton (*Gossypium hirsutum* L.) joinmap. J. Heredity. 96 (2):132-144. 2005.
9. McGuire, M.R., **Ulloa, M.**, Park, Y.H. and Hudson, N. Biological and molecular characteristics of *Beauveria bassiana* isolates from California *Lygus hesperus* (Hemiptera: Miridae) populations. Biol. Cont. 33 (3):307-314. 2005.
10. Leland, J.E., McGuire, M.R., Grace, J.A., Jaronski, S.T., **Ulloa, M.**, Park, Y.H. and Plattner, R.D. Strain selection of a fungal entomopathogen, *Beauveria bassiana*, for control of plant bugs (*Lygus* spp.) (Heteroptera:Miridae). Biol. Cont. 35 (2):104-114. 2005.
11. Park, Y.H., Alabady, M.S., **Ulloa, M.**, Sickler, B., Wilkins, T.A., Yu, J., Stelly, D.M., Kohel, R.J, El-Shihy, O.M. and Cantrell, R.G. Genetic mapping of new

- cotton fiber loci using EST-derived microsatellites in an interspecific recombinant inbred line cotton population. *Mol. Genet. Genomics* 274 (4):428-441. 2005.
12. **Ulloa, M.**, McD. Stewart, J., Garcia-C., E.A., Godoy-A., S., Gaytan-M., A. and Acosta N. S. Cotton genetic resources in the western states of Mexico: *In situ* conservation status and germplasm collection for *ex situ* preservation. *Genet. Resour. Crop Evol.* 53 (4):653-668. 2006.
  13. Wang, C., **Ulloa, M.** and Roberts, P.A. Identification and mapping of microsatellite markers linked to a root-knot nematode resistance gene (*rkn1*) in Acala NemX cotton (*Gossypium hirsutum* L.). *Theor. Appl. Genet.* 112 (4):770-777. 2006.
  14. *Frelichowski Jr., J.E., Palmer, M.B., Main, D., Tomkins, J.P., Cantrell, R.G., Stelly, D.M., Yu, J., Kohel, R.J.* and **Ulloa, M.** Cotton genome mapping with new microsatellites from Acala 'Maxxa' BAC-ends. *Mol. Genet. Genomics* 275 (5):479-491. 2006.
  15. **Ulloa, M.**, Hutmacher, R.B., Davis, R.M., Wright, S.D., Percy, R. and Marsh, B. Breeding for Fusarium wilt race 4 resistance in cotton under field and greenhouse conditions. *J. Cot. Sci.* 10 (2):114-127. 2006.
  16. McGuire, M.R., Leland, J.E., Dara, S., *Park, Y.H.* and **Ulloa, M.** Effect of different isolates of *Beauveria bassiana* on field populations of *Lygus hesperus*. *Biol. Cont.* 38 (3):390-396. 2006.
  17. **Ulloa, M.** Heritability and correlations of agronomic and fiber traits in an okra-leaf upland cotton population. *Crop Sci.* 46 (4):1508-1514. 2006.
  18. Blenda, A., Scheffler, J., Scheffler, B., Palmer, M., Lacape, J.M., Yu, J.Z., Jesudurai, C., Jung, S., Muthukumar, S., Yellambalase, P., Ficklin, S., Staton, M., Eshelman, R., **Ulloa, M.**, Saha, S., Burr, B., Liu, S., Zhang, T., Fang, D., Pepper, A., Kumatla, S., Jacobs, J., Tomkins, J., Cantrell, R. and Main, D. CMD: A cotton microsatellite database resource for *Gossypium* genomics. *BMC Genomics.* 7:132. 2006.
  19. Percy, R.G., Mayo, O.L., **Ulloa, M.** and Cantrell, R.G. Registration of AGC85, AGC208, and AGC375 Upland cotton germplasm lines. *Crop Sci.* 46 (4):1828-1829. 2006.
  20. **Ulloa, M.**, Percy, R.G., Hutmacher, R. and Cantrell, R.G. Registration of SJ-U86 cotton germplasm line with high yield and excellent fiber quality. *Crop Sci.* 46 (5):2336-2337. 2006.



21. Zhang, J., Yuan, Y., Niu, C., Hinchliffe, D.J., Lu, Y., Yu, S., Percy, R.G., **Ulloa M.** and Cantrell, R.G. AFLP-RGA markers in comparison with RGA and AFLP in cultivated tetraploid cotton. *Crop Sci.* 47 (1):180-187. 2007.
22. Chen, Z.J., Scheffler, B.E., Dennis, E., Triplett, B.A., Zhang, T., Guo, W., Chen, X., Stelly, D.M., Rabinowicz, P.D., Town, C.D., Arioli, T., Brubaker, C., Cantrell, R.G., Lacape, J.M., **Ulloa, M.**, Chee, P., Gingle, A.R., Haigler, C.H., Percy, R., Saha, S., Wilkins, T., Wright, R.J., Van Deynze, A., Zhu, Y., Yu, S., Abdurakhmonov, I., Katageri, I., Kumar, P.A., Ur-Rahman, M., Zafar, Y., Yu, J.Z., Kohel, R.J., Wendel, J.F. and Paterson, A.H. Toward sequencing cotton (*Gossypium*) genomes. *Plant Physiol.* 145 (4):1303-1310. 2007.
23. Wang, C., **Ulloa, M.** and Roberts, P.A. A transgressive segregation factor (*RKN2*) in *Gossypium barbadense* for nematode resistance clusters with gene *rkn1* in *G. hirsutum*. *Mol. Genet. Genomics* 279 (1):41-52. 2008.
24. **Ulloa, M.**, Percy, R., Hutmacher, B., Wright, S. and Davis, M. Release of SJ-07P-FR01, SJ-07P-FR02, SJ-07P-FR03, and SJ-07P-FR04 'Cotton'. *Germplasm Release*. 2008.
25. Dara, S.K., McGuire, M.R., **Ulloa, M.** and Kaya, H.K. Evaluation and molecular characterization of *Beauveria bassiana* for the control of the glassy-winged sharpshooter, (Homoptera:Cicadellidae) in California. *J. Entomol. Sci.* 43 (2):241-246. 2008.
26. Kantartzi, S.K., **Ulloa, M.**, Sacks, E. and Stewart, J.McD. Assessing genetic diversity in *Gossypium arboreum* L. cultivars using genomic and EST-derived microsatellites. *Genetica.* 136 (1):141-147. 2009.
27. Wallace, T.P., Bowman D., Campbell B.T., Chee, P., Gutierrez, O.A., Kohel, R.J., McCarty, J., Myers, G., Percy, R., Robinson, F., Smith, W., Stelly, D.M., Stewart, J.M., Thaxton, P., **Ulloa M.** and Weaver, D.B. Status of the USA cotton germplasm collection and crop vulnerability. *Genet. Resour. Crop Evol.* 56 (4):507-532. 2009.
28. **Ulloa, M.**, Percy, R., Zhang, J., Hutmacher, R.B., Wright, S.D. and Davis, R.M. Registration of four Pima cotton germplasm lines having good levels of Fusarium wilt race 4 resistance with moderate yields and good fibers. *J. Plant Registr.* 3 (2):198-202. 2009.
29. Percy, R.G., **Ulloa M.** and Zhang, J. Registration of PSI 113 and PSI 425 germplasm lines of Pima cotton possessing superior fiber quality traits. *J. Plant Registr.* 3 (3):297-299. 2009.
30. **Ulloa, M.**, Percy, R., Hutmacher, R.B., and Zhang, J. The future of cotton breeding in the Western United States. *J. Cot. Sci.* (13) 4:246-255. 2009.

31. **Ulloa, M.**, Wang, C. and Roberts, P.A. Gene action analysis by inheritance and QTL mapping of resistance to root-knot nematodes in cotton. *Plant Breeding*. 129 (5):541-550. 2010.
32. Roberts, P.A. and **Ulloa, M.** Introgression of root-knot nematode (RKN) resistance into tetraploid cottons. *Crop Sci.* 50 (3):940-951. 2010.
33. Percy, R.G., Campbell, B.T., Chee, P.W., Jones, D.C., Lubbers, E.L., Myers, G.O., and **Ulloa, M.** Registration of CRB 252, an upland cotton germplasm line possessing superior fiber quality traits. *J. Plant Registr.* 4 (3):236-239. 2010.
34. Chen, N., Lu, Y., Yuan, Y., Percy, R.G., **Ulloa, M.**, and Zhang, J. Mapping resistance gene analogs (RGAs) in cultivated tetraploid cotton using RGA-AFLP analysis. *Euphytica*. 181 (1):65-76. 2011.
35. **Ulloa, M.**, Wang, C., Hutmacher, R.B., Wright, S.D., Davis, R.M., Saski, C.A., and Roberts, P.A. Mapping Fusarium wilt race 1 resistance genes in cotton by inheritance, QTL, and sequencing composition. *Mol. Genet. Genomics* 286 (1): 21-36. 2011.
36. Feng, C., **Ulloa, M.**, Perez-M., C., and Mcd. Stewart, J. Distribution and molecular diversity of arborescent *Gossypium* species. *Botany* 89:615-624. 2011.
37. Yu, J.Z., Kohel, R.J., Feng, D.D., Cho, J., Van Deynze, A., **Ulloa, M.**, Hoffman, S.M., Pepper, A.E., Stelly, D.M., Jenkins, J.N., Saha, S., Kumpatla, S.P., Shah, M.R., Hugie, W.V., and Percy, R.G. A high-density simple sequence repeat and single nucleotide polymorphism genetic map of the tetraploid cotton genome. *G3, Genes, Genomes, Genetics* 2:43-58. 2012.
38. Yu, J.Z., Kohel, R.J., Feng, D.D., **Ulloa, M.**, Hinze, L., Percy, R.G., Zhang, J., Chee, P., Scheffler, B.E., and Jones, D.C. Development of a core set of SSR markers for the characterization of *Gossypium* germplasm. *Euphytica* 187(2):203-213. 2012.
39. Wang, C., **Ulloa, M.**, Mullens, T.R., and Roberts, P.A. QTL analysis for transgressive resistance to root-knot nematode in interspecific cotton (*Gossypium* spp.) progeny derived from susceptible parents. *PLoS One* 7(4):e34874. 2012.
40. **Ulloa, M.**, Hutmacher, R.B., Roberts, P.A., Wright, S.D., Nichols, R.L., and Davis, R.M. Inheritance and QTL mapping of Fusarium wilt race 4 resistance in cotton. *Theor. Appl. Genet.* 126:1405-1418. 2013.
41. **Ulloa, M.**, Abdurakhmonov, I.Y., Perez-M., C., and Stewart, McD.J. Genetic diversity and population structure of cottons (*Gossypium* spp.) of the New World assessed by SSR markers. *Botany* 91:251-259. 2013.

42. Egamberdiev, S.S., **Ulloa, M.**, Saha, S., Salakhudinov, I.B., Abdullaev, A., Glukhova, L.A., Adylova, A.T., Scheffler, B.A., Jenkins, J.N. and Abdurakhmonov, I.Y. Molecular Characterization of Uzbekistan Isolates of *Fusarium oxysporum* f. sp. *vasinfectum*. Journal of Plant Science & Molecular Breeding 2: 3. 2013.
43. Fang, H., Zhou, H., Sanogo, S., Flynn, R., Percy, R.G., Hughs, S.E., **Ulloa, M.**, Jones, D.C. and Zhang J. Quantitative trait locus mapping for Verticillium wilt resistance in a backcross inbred line population of cotton (*Gossypium hirsutum* x *Gossypium barbadense*) based on RGA-AFLP analysis. Euphytica 194:79-91.2013.
44. Hutmacher, R.B., **Ulloa, M.**, Wright, S.D., Campbell, B.T., Percy, R.G., Wallace, T., Myers, G., Bourland, F., Weaver, D., Chee, P., Thaxton, P., Zhang, J., Smith, W., Dever, J., Kuraparthi, V., Bowman, D., Jones, and D., Burke, J. Elite-Upland cotton germplasm-pool assessment of Fusarium wilt resistance in California. Agronomy Journal 105:1635-1644. 2013.
45. Egamberdiev, S.S., Salahutdinov, I.B., Abdullaev, A.A., **Ulloa, M.**, Saha, S., Radjapov., Mullaohunov, B., Mansurov D., Jenkins, J.N. and Abdurakhmonov, I.Y. Detection of Fusarium oxysporum f.sp. vasinfectum race 3 by single-base extension method and allele-specific polymerase chain reaction. Can. J. Plant Pathol. 36(2):216-223. 2014.
46. Yu, J., **Ulloa, M.**, Hoffman, S.M., Kohel, R.J., Pepper, A.E., Fand, D.D., Percy, R.G. and Burke, J.J. Mapping genomic loci for cotton plant architecture, yield components, and fiber properties in an interspecific (*Gossypium hirsutum* L. x *G. barbadense* L.) RIL population. Molecular Genetics and Genomics 289:1347-1367. 2014.
47. Abdullaev, A.A., Salakhutdinov, I.B., Egamberdiev, S.S., Kuryazov, Z., Glukhova, L.G., Adilova, A.T., Rizaeva, S.M., **Ulloa, M.**, Abdurakhmonov, I.Y. Analyses of Fusarium wilt race 3 resistance in upland cotton (*Gossypium hirsutum* L.). Genetica. 143(3):385-392. 2015.
48. Hulse-Kemp, A.M., Lemm, J., Plieske, J., Ashrafi, H., Buyyarapu, R., Fang, D.D., Frelichowski, J.E., Giband, M., Hague, S., Hinze, L.L., Kochan, K., Riggs, R., Scheffler, J.A., Udall, J.A., **Ulloa, M.**, Wang, S., Zhu, Q., Bag, S.K., Bhardwaj, A., Burke, J.J., Byers, R.L., Claverie, M., Gore, M.A., Harker, D.B., Islam, M.S., Jenkins, J.N., Jones, D.C., Lacape, J., Llewellyn, D.J., Percy, R.G., Pepper, A.E., Poland, J.A., Rai, K., Sawant, S.V., Singh, S., Spriggs, A., Taylor, J.M., Wang, F., Yourstone, S.M., Zheng, X., Lawley, C.T., Ganal, M.W., Van Deynze, A., Wilson, L.W., Stelly, D.M. Development of a 63K SNP array for *Gossypium* and high-density mapping of intra- and inter-specific populations of cotton (*G. hirsutum* L.). Genes, Genomes, Genetics. 5:1187-1209. doi:10.1534/g3.115.018416. 2015.

49. Wang, C., **Ulloa, M.**, Shi, X., Yuan, X., Saski, C., Yu, J., Roberts, P. Sequence composition of BAC clones and SSR markers mapped to Upland cotton chromosomes 11 and 21 targeting resistance to soil-borne pathogens. *Frontiers in Plant Science*. 6:791. 2015.
50. **Ulloa, M.**, Hutmacher, R.B., Percy, R.G., Wright, S.D., Burke, J.J. Registration of five pima cotton germplasm lines (SJ-FR05 - FR09) with improved resistance to fusarium wilt race 4 and good lint yield and fiber quality. *Journal of Plant Registrations*. 10:154-158. 2016.
51. Abdurakhmonov, I.Y., Ayubov, M., Ubaydullaeva, K.A., Buriev, B.T., Shermatov, S.E., Ruziboev, H., Shapulatov, U.M., Saha, S., **Ulloa, M.**, Yu, J., Percy, R.G., Devor, E.J., Govind, S.C., Sripathi, V.R., Kumpatla, S.P., Van De Kroll, A., Hake, K.D., Khamidov, K., Salikhov, S.I., Jenkins, J.N., Abdukarimov, A., Pepper, A.E. RNA Interference for Functional Genomics and Improvement of Cotton (*Gossypium* species). *Frontiers in Plant Science*. 7:202. 2016.
52. **Ulloa, M.**, Wang, C., Saha, S., Hutmacher, R.B., Stelly, D.M., Jenkins, J.N., Roberts, P. Analysis of root-knot nematode and fusarium wilt disease resistance in cotton (*Gossypium* spp.) using chromosome substitution lines from two alien species. *Genetica*. 144(2):167-179. 2016.
53. **Ulloa, M.** Molecular markers learning modules, Vol. 1 and 2. *Crop Sci*. 45:2676-2677. 2005. (Book review).
54. Kantartzi, S., **Ulloa, M.** and McD. Stewart, J. Genetic diversity of A-genome cotton. In: D.M. Oosterhuls (Ed.). *Summaries of Arkansas Cotton Research 2006*. Ark.Agri. Exp. Sta. Research Series 552. 112-116. 2007. (Technical Bulletin).
55. **Ulloa, M.**, Brubaker, C. and Chee, P. Cotton. In: Kole, C. (Ed.) *Genome Mapping & Molecular Breeding*. Vol. 6: Technical Crops. Springer, Berlin, Heidelberg, New York. 1-49. 2007. (Book Chapter).
56. **Ulloa, M.**, and Roberts, P.A. DNA sequences from two SSRs (CIR316 and MUCS088) linked to root-knot nematode resistance genes from diverse cottons (*Gossypium* spp.). Genebank. GeneBank accessions: FJ599673-FJ599688. 2010.
57. Abdurakhmonov, I.Y., Buriev, Z.T., Shermatov, S.E., Abdullaev, A.A., Urmonov, K., Kushanov, F., Egamberdiev, S.S., Shapulatov, U., Abdukarimov, A., Saha, S., Jenkins, J.N., Kohel, R.J., Yu, J.Z., Pepper, A.E., Kumpatla, S.P., and **Ulloa, M.** In: Caliskan M. (Ed) *Genetic diversity in Gossypium genus* Vol. 16. Genetic Diversity of Plants. In Tech p. 313-338. 2012 (Book Chapter)
58. Percy, R.G., Frelichowski, J.E., Arnold, M.D., Dever, J.K., Fang, D.D., Hinze, L.L., Main, D., Scheffler, J., Sheehan, M.A., **Ulloa, M.**, Yu, J. and Yu, J. In: Abdurakhmonov, I.Y (Ed). *The U.S. National Cotton Germplasm Collection – its*

contents, preservation, characterization, and evaluation Vol. 7. World Cotton Germplasm Resources. In Tech p. 167-200. 2014. (Book Chapter)

59. **Ulloa, M.** The diploid D genome cottons (*Gossypium* spp.) of the New World Vol. 8. In: Abdurakhmonov, I.Y (Ed). World Cotton Germplasm Resources. In Tech p. 201-229. 2014. (Book Chapter)
60. **Ulloa, M.** and Roberts P. DNA sequences and composition from 12 BAC clones-derived MUSB SSR markers mapped to cotton (*Gossypium hirsutum* L. x *G. barbadense* L.) chromosomes 11 and 21. Genebank. GeneBank accessions: KM396694 – KM396705. 2014.
61. Ulloa, M., Hutmacher, R., Percy, R.G., Wright, S., Burke, J.J. Release of Pima SJ-FR05, Pima SJ-FR06, Pima SJ-FR07, Pima SJ-FR08, and Pima SJ-FR09 Pima cotton with improved FOV4 resistance, and good lint yield and fiber quality. Journal of Plant Registrations. p.1-2. 2015.