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Samreen Haseeb Kazi

Education

Aug 2002-Dec 2005 Southern Illinois University Carbondale, USA

MS: Molecular Biology, Microbiology and Biochemistry (MBMB)

Thesis: Minimum-tile derived microsatellite markers improve the physical map of the Soybean genome and the Flyer and Hartwig Genetic map at *Rfs*, *Rhg* and yield loci

Aug 1999-Aug 2001 Quaid-I-Azam University Islamabad, Pakistan.

M. Phil Microbiology

- Overall GPA 4.0/5.0, Grade A
- **Thesis** Studies on Microbial Enhanced oil Recovery by *Bacillus subtilis*

Jan 1997-Jan 1999 Quaid-I-Azam University Islamabad, Pakistan

Masters in Molecular Biology/Biochemistry

Mini Projects: Techniques in Plant tissue culture

Characterization of thermophilic, anaerobic and halotolerant bacteria

1995-1996 Federal Gov College for women, F-7/2 Islamabad, Pakistan

Bachelor of Science

- Subjects: Zoology, Chemistry and Applied Psychology

1993-1994 Islamabad Model College For Girls, F-7/4 Islamabad, Pakistan

Faculty of Science

- Intermediate (Pre-Medical).
- Subjects: Chemistry, Biology and Physics

1991-1992 Islamabad Model College For Girls, F-7/4 Islamabad, Pakistan

Matriculation

- Subject: Science.

Standardized Tests

August 2002
TOEFL (Test of English as a foreign language)

October 2002
GRE (Graduate record examination). Computer based

Professional Experience

August 2005-
Researcher I in Plant Biotechnology and Genomics Research facility (Primarily responsible for Sequencing)

Jan 2005-May 2006
Teaching Assistant

- TA for course “Introduction to agricultural biotechnology” Carbondale. USA
Course: PSGA 433 SIUC

Feb 1999-July 1999 Islamabad Model college for girls G-6/4 Islamabad, Pakistan
Teacher

- Teaching Intermediate and Matriculate classes for Biology and chemistry. Also conducted physical chemistry, organic chemistry and physics practicals.

Awards/Honor

Sep 2002 – Recipient of the Outstanding performance award in M. phil Microbiology thesis

Feb 2003 – Dec 2005 Research assistantship for MS from Southern Illinois University at Carbondale.

Publications

Jeffrey L. Shultz, Deepakkumaran Jayaraman, Kay Shopinsk., M. Javed Iqbal, **Samreen Kazi**, Kimberley Zobrist, Rabia Bashir, Satsuki Yaegashi, Nagajyothi Lavu, Ahmed J. Afzal, Charles R. Yesudas, M. Abdelmajid Kassem, Chengcang Wu, Hong Bin Zhang, Christopher D. Town, Khalid Meksem, and David A. Lightfoot. **The Soybean Genome Database (SoyGD): a browser for display of duplicated, polyploid, regions and sequence tagged sites on the integrated physical and genetic maps of *Glycine max*. *Nucleic Acids Research*, 2006, Vol. 34, Database issue **D758-D765**;doi:10.1093/nar/gkj050.**

Samreen Kazi Registration of the Flyer by Hartwig Recombinant Inbred Line Mapping Population (CROP-2006-04-0270-CRMP) Submitted to crop science.

Pubmed Submission

Afzal, A.J., **Kazi, SH.**, Yaegashi, S., Gillum, J. and Lightfoot, D.A. **Polymorphic nucleotides within alleles of the soybean cyst nematode resistance gene Rhg1 from 116 SCN resistant plant introductions from China** (2004). Id no: AY598406-598413, AY597055-AY597126 and AY618844-618867

Manuscripts under preparation

Shultz, J. L Yesudas, C. Yaegashi, S. Afzal, A. J. **Kazi, S.** Lightfoot, D. A. **Three Minimum Tile Paths from Bacterial Artificial Chromosome Libraries of the Soybean (*Glycine max* cv. ‘Forrest’): Tools for Structural and Functional Genomics.** *Plant Methods* (Under review).

Jeffrey Shultz, Deepak Kurunam, Kay Shopinski, M. Javed Iqbal, **Samreen Kazi**, Kimberly Zobrist, Satsuki Yaegashi, Nagajyothi Lavu, Ahmad Afzal, Charles Yesudas, M. A. Kassem, Chengcang Wu,

Hong Bin Zhang, Christopher D. Town, Khalid Meksem and David A. Lightfoot. **The Soybean Genome Database (SoyGD): Physical Maps, Genetic Maps, Homeologous Regions, DNA Markers, Contig Structures, EST Content, BAC End Sequences and Contiguous DNA Sequences Of *Glycine max*.** (Accepted in Nucleic acid)

Afzal J, **Kazi S**, Ahsan R, Meksem K, Jamai A., and D.A. Lightfoot. **Identification of alleles of Rhg1 that underlie Resistance to Soybean Cyst Nematode.** *Soy. Genet. Newslett.*

**Published
Abstracts**

Afzal, AJ, Wang, J, **Kazi, SH** and Lightfoot, DA. **RHG1 and RHG4. Alpha, beta, beta class of proteins involved in elicitor recognition and dimerization.**

Kazi, S., Bashir R., Shultz, J., Lavu, N., Lightfoot, D.A. (2005) **Development And Mapping Of 1053 New Microsatellite Markers From The Soybean Sequence Ready Physical Map.** PAG XIII, P141. Online at www.intl-pag.org/13/abstracts/PAG13_P141.html

Samreen Kazi, Javed Iqbal, Jeff Shultz, A. J. Afzal, Prakash Arelli, Jason Bond, D A. Lightfoot. **Minimur tile Derived Microsatellite-markers improve the physical map of the Soybean genome and the “Flyer and “Hartwig” Genetic map.** SIU 11th Annual Molecular and Cellular Biology Symposium (2005), Conference Center, Grafton, IL. Pg:31

Jawaad Afzal, Javed Iqbal, Jianjun Wang, **Samreen Kazi** and David Lightfoot. **RHG1 codominant resistance is encoded by a dimeric alpha beta beta protein involved in signal transduction.** SIU 11th annual Molecular and Cellular Biology Symposium, April 22-23, 2005, Grafton, IL. Pg:17

Jeffery Schultz, Chester Langin, Nagajothi Lavu, M Javed Iqbal, Kay Shopinski, Jawad Afzal, Samreen Kazi, **Rabia Bashir**, Chenchag Wu, Chris Town, Hongbin Zhang and David Lightfoot. **Genome Evolution-Framework Genome Comparisons Among *Medicago truncatula*, *Arabidopsis thaliana* and *Glycine max* Shows Separate Paleopolyploid Genome Structures has Provided Aneuploresis in Disease Resistance and Other Trait Loci.** 2005 Model legume Congress, PacificGrove, California ,June5-9,2005, pg:153

<http://www.eugrainlegumes.org/meetings/documents/MLCAbstract1.pdf#search='2005%20model%20%20legume%20congress'>

Jeffery Shultz , N Lavu , Chet Langin , Kay Shopinski , **S Kazi** , R Bashir , J Iqbal , J Afzal , C Town , K Meksem , H Zhang , C Wu , David Lightfoot, **Uses Of the Soybean Sequence Ready Physical Map.** Plant and Animal genome. January 15-19, 2005 Town & Country Convention Center San Diego, CA. http://www.intl-pag.org/pag/13/abstracts/PAG13_W205.html

Jawaad Afzal , R Ahsan , **Samreen Kazi** , Chet Langin , MJ Iqbal , DA Lightfoot. **Proteomic And Genomic Approaches To Molecular Breeding Of Resistance To Soybean Sudden Death Syndrome And Cyst Nematode In Elite Cultivars.** Plant and Animal genome. January 15-19, 2005 Town & Country Convention Center San Diego, CA http://www.intl-pag.org/pag/13/abstracts/PAG13_P781.html

**Poster
Presentations**

Kazi, S., Shultz, J., Afzal, J., Bashir, R., Jayaraman, D., Iqbal, M.J., Lightfoot, D.A. **Development and Mapping of BAC End Sequence Derived SSR Markers Linked to Candidate Loci from the Soybean Sequence Ready Physical Map.** Plant & Animal Genome Conference. January 14-18, 2006, Town & Country Convention Center, San Diego, CA.

Kazi, S., Karangula, K., Bashir R., Jayaraman, D., Gupta, L., Lightfoot, D.A. **Comparison Of Genome Structures In Soybean Cultivars Displaying "Linkage Drag" Suggests Genome Architecture Not**

Linkage Alters Plant Performance. Plant & Animal Genome Conference. January 14-18, 2006, Town & Country Convention Center, San Diego, CA.

Jayaraman, Dheepakkumaran, Yesudas, Charles R, **Kazi, Samreen**, Bashir, Rabia, Afzal, Jawaad_ and Lightfoot, David A. **Recent Additions To The Soybean Genome Database (SoyGD): A Browser For Display Of The Integrated Physical, Genetic And Gene Maps Of *Glycine max*.** Plant and Animal Genome Conference, 2006, in the Town & Country Convention Center, San Diego, CA, from Jan 14-18, 2006 and also in **3rd International Conference on Legume Genomics & Genetics** held at Brisbane Convention & Exhibition Center, Queensland, Australia from 9-13 April, 2006.

Lightfoot, D.A., Shultz, J., Yasudas, C., N Lavu , **Kazi, S.**, Bashir, R., Iqbal, M.J., Afzal, J., Shopinski, K., Jayaraman, D., Wu, C., Town, C., Zhang, H. **The Complete Physical Map of *Glycine max* (L.) Merrill, Shows the Paleopolyploid Genome Structure Provides Aneuploidy in Disease Resistance and Other Traits.** American Society of Plant Biologists (ASPB), Seattle, WA, July 16-20, 2005.

Samreen Kazi, Rabia Bashir, Jeffry Shultz, Chester Langin, Javed Iqbal and David A. Lightfoot. **Development and mapping of 1053 new SSR markers from the Soybean Sequence Ready Physical Map.** Plant and Animal Genome conference. January 15-19, 2005 Town and Country convention center San Diego, CA.

Yesudas, C., Lightfoot, D.A., Shultz, J., Nagajothi, L., Iqbal, M.J., Shopinski, K., Afzal, J., **Kazi, S., Bashir, R** and Jayaraman, D. **Positional Cloning of Genes Underlying QTL for Isoflavones, Protein, Oil and Insect Resistance in Soybean , *Glycine max*. (L.) Merrill.** Poster presented at the American Society of Plant Biologists (ASPB) meeting, Seattle, WA, July 16-20, 2005

Shultz, Jeff , Meksem, Khalid, Langin, Chet, **Kazi, Samreen**, Zobrist, Kimberly, Yaegashi, Satsuki, Lavu, Nagajothi, Iqbal, Javed, Potter, Jamie, Yesudas, Charles, Wainer, David, Watson, Dennis, Wu, Chencang, Zhang, Hong Bin, Town, Christopher, Lightfoot, David. **Browsing the soybean genome: Educational challenges from physical map builds of a recently duplicated genome.** American Society of Plant Biologists (ASPB), Lake Buena Vista, FL, July 24 - July 28, 2004.

Samreen Kazi, Javed Iqbal, Kanokporn Tik Triwitayakorn, Aziz Jamai, Jeff Shultz, M. A. Kassem, Khalid Meksem, Prakash Arelli, Jason Bond , D. A. Lightfoot. **Genomic approaches to resistance to soybean cyst nematode populations.** Annual conference of Plant Biology July, 2004 Coronado spring resort Orlando, Florida.

Kazi, SH, Afzal, AJ Yaegashi, S, Gillum, J and Lightfoot, DA. **Detection of Rhg1 Alleles in Illinois Cultivars and 110 PIs from China: Haplotype analysis using Taqman probes.** SIU Tenth Annual Molecular and Cellular Biology Symposium 2004, Conference Centre, Grafton, IL

**Laboratory/
Field
Experience**

- DNA Sequencing (Routinely use ABI prism 377 and Capillary sequencer — CEQ 2000 and CEQ 8000)
- Genetic Mapping
- DNA and RNA Isolations from Plant and Fungal tissue
- DNA Digestion by Restriction enzyme
- Competent cells formation
- Bacterial Transformation
- Marker assisted selection of genes

- Plasmid DNA Isolations
 - Southern and Northern hybridizations
 - PCR for Amplification of Genomic fragments
 - Agarose and Acrylamide Gel Electrophoresis
 - Seed Planting and Harvesting
 - Seed Threshing and Packaging
 - Green house Work
 - Certification for Radiation Work (2004-present)
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**Computer /
Software Skills**

Microsoft office, MS Word applications, Excel, PowerPoint, Adobe, Photoshop.
Mapmaker EXP version 1.1, Mapmaker QTL version 3.0,
QTL Cartographer version 2.5, MapChart version 2.1,

Languages

(Reading, Writing, Speaking)

English (fluent, fluent, fluent)

Urdu (fluent, fluent, fluent)

Punjabi (functional, functional, functional)

**Extra curricular
activities**

- Reading, Travelling, Music and Cooking
 - Volunteer for international students and scholars at SIU
 - Active member of IN **Gear** (International network for Global educational Activities) in Rural schools.

 - Judged Illinois Junior Academy of Science Region 8 Science Fair 2004
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References

Dr. David A. Lightfoot, Ph.D.

Professor of Genetics
Soybean Genomics
Department of Plant, Soil and Agricultural Systems
Center for Excellence in Soybean Research,
Teaching and Outreach,
Genomics and Biotechnology Core Facility,
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