

Asma H. Al-Rawi

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RESEARCH INTERESTS	Computational biophysics research, particularly MD simulations of peptide systems.	
EDUCATION	Kansas State University , Manhattan, KS B.S. Physics, Mathematics (expected graduation date: May 2009) Manhattan High School , Manhattan KS <ul style="list-style-type: none">• May, 2003• Valedictorian• GPA 4.0	
HONORS AND AWARDS	<ul style="list-style-type: none">• Terry C. Johnson Cancer Research Award (2007-2008)• Thomas L. and Elouise J. Miller Scholar (2006-2008)• Putnam Scholar (2003-2007)• Kathryn and Charles Bearman Scholar (2004-2007)• Leonard E. Fuller Scholar (2005-2006)• James and Gayle Baxter Scholar (2005-2006)• Meritorious placement, Mathematical Constest in Modeling (2004, 2005)• Kansas Governor Scholar (2003)	
PRESENTATIONS	Poster: Montelone, B., Slusser, J.G., and Al- Rawi, A. H. "The DNA repair protein Mms21p interacts with a member of a family of subtelomerically-encoded proteins". Yeast Genetics and Molecular Biology Meeting, Madison WI 7/30/02–8/4/02.	
PROFESSIONAL EXPERIENCE	Dept. of Biochemistry, Kansas State University <i>Undergraduate Research Assistant</i> 2008-Present Computer simulated structure and dynamics of M ₂ GlyR derived ion channel-forming peptide in order to find optimum structure for theraputic use in cystic fibrosis patients; used coarse-grained techniques to model peptides with a lower computational cost. Center of Cancer Research, Massachusetts Institute of Technology <i>Undergraduate Research Assistant</i> Summer 2006, 2007 Worked on GFP tagging of cell cycle-dependent DNA damage in mammalian cells, using p53. Dept. of Physics, Kansas State University <i>Undergraduate Help-Room Tutor</i> 2007-2008 Assisted undergraduate non-major students with physics homework and concepts. <i>Teaching Assistant</i> Spring 2006 Introduced high school students to computational biophysics/physics research at the university level, including instruction in basic condensed matter, crystallography, calculus, C programming, and 3D modelling.	

Women in Engineering and Science,

Teaching Assistant, Chaperone

June, 2004

Developed and carried out aeronautics tutorial program for teen women interested in science and engineering. Chaperoned and mentored teens through other tutorials during the program.

Dept. of Biology, Kansas State University,

Undergraduate Research Assistant

June, 2002 - August, 2004

Attempted to confirm a yeast two-hybrid identified interaction of Gin11 and Mms21p using coimmunoprecipitation in *S. cerevisiae*.

MEMBERSHIPS

- 2005-Present, KSU Astronomy Club
- 2003-Present, KSU Physics Club, President
- 2004-Present, KSU Math Club
- 2004-Present, Society of Physics Students
- 2004-Present, KSU German Club
- 2004-2006, KSU Alliance for Peace and Justice

VOLUNTEER EXPERIENCE

- 2008, Organized junk-yard car races for middle-school girls
- 2006, Organized Physics Club trip to Fermilab and Argonne National Lab
- 2004-2007, Organized and manned the Physics Department Open House
- 2005, Tutored physics students at Boston University
- 2005, Helped organize Hijab Awareness presentation
- 2004-2005, Organized trebuchet competition at KSU
- 2004-Present, Organized help sessions for intermediate physics undergraduates
- 2004, Helped organize fundraiser to ship science books to Iraq
- 2004, Teen Women In Science and Engineering (TWIST): Acted as Amalie Nöther, presented her research
- 2003-2004, Girls Researching Our World (GROW): Organized DNA forensics presentation

COMPUTER SKILLS

- Packages: L^AT_EX, POV-Ray, Microsoft Office, Matlab, LabVIEW, Adobe Photoshop, Inkscape, VMD, NAMD, CHARMM
- Languages: C, C++, Java, Python, HTML, CSS, Unix shell scripts
- Operating Systems: Unix/Linux, Windows XP, Mac OSX