Louisa A. Stark

**Curriculum Vitae**

**Education**

1979 B.S. Biology Grand Valley State University, Allendale, MI

1992 Ph.D. Evolutionary Genetics University of Colorado at Boulder, Boulder, CO

1996-1999 Science Education University of Colorado at Boulder, Boulder, CO 1999-2001 Program Evaluation Western Michigan University, Kalamazoo, MI

**Professional Experience**

1976-1979 Teaching Assistant, Russel H. Kirkhof College, Grand Valley State University

1980-1986 Professional Research Assistant/Laboratory Manager, Department of Molecular, Cellular and Developmental Biology (MCD Biology), University of Colorado at Boulder

1990 Teaching Assistant, Department of Environmental, Population and Organismic Biology (EPO Biology), University of Colorado at Boulder

1991 Hughes Graduate Outreach Fellow, Hughes Biological Science Education Initiative (HBSEI), University of Colorado at Boulder

1992 Lecturer and Laboratory Coordinator, MCD Biology, University of Colorado at Boulder

1993 Lecturer, EPO Biology, University of Colorado at Boulder

1992-1996 Scientist-in-Residence, HBSEI, University of Colorado at Boulder

1996-1998 Senior Scientist, HBSEI, University of Colorado at Boulder

1999-2001 Evaluation Internships, The Evaluation Center, Western Michigan University

1999-2001 Director for Science Education, Genetic Science Learning Center, University of Utah

2001-2004 Co-Director, Genetic Science Learning Center, University of Utah

2004-present Director, Genetic Science Learning Center, University of Utah

2007-present Clinical Professor, College of Education, University of Utah

2008-present Associate Director, Community Engagement Core, Center for Clinical and Translational Science, School of Medicine, University of Utah

2009-present Acting Associate Director, Center for Science and Mathematics Education, University of Utah

2010-present Research Associate Professor, Department of Human Genetics, University of Utah

**Personal Awards**

2005 Utah Science Teachers Association, Outstanding Higher Education Award

2008 Utah Science Teachers Association, Friend of Science Education Award (lifetime achievement award)

2008 American Society of Human Genetics, Award for Excellence in Human Genetics Education; awarded jointly with Lynn Jorde and John Carey, University of Utah

2009 Grand Valley State University, Distinguished Alumni Award

2010 State of Utah,Governor’s Medal for Science and Technology

2011 National Association of Biology Teachers, Honorary Membership Award (NABT’s highest award)

**Genetic Science Learning Center Awards**

2003 Scientific American, Science and Technology Web Award for the Genetic Science Learning Center website; one of the top five sites on the Internet for “Biology” and one of the top 50 sites for science

2004 Scientific American, Science and Technology Web Award for the Stem Cells in the Spotlight module; one of the top five sites on the Internet for “Health and Medicine” and one of the top 50 sites for science

2009 Genetic Alliance, Gene Screen Film Festival, Award for Using Family History to Improve Your Health movie

2009 National Science Foundation and AAAS/Science Magazine, 2009 International Science and Engineering Visualization Challenge, First Place, Noninteractive Multimedia for The Epigenetics of Identical Twins movie

2010 AAAS/*Science* Magazine, *Science* Prize for Online Resources in Education for the Learn.Genetics and Teach.Genetics websites

**Elected Positions – National Organizations**

2001-2003 National Association of Biology Teachers, Region VIII Coordinator

2004-2006 National Association of Biology Teachers, Region VIII Coordinator

2005-2006 National Association of Biology Teachers, Board of Directors

2006-2009 National Association of Biology Teachers, Region VIII Coordinator

2008-2009 National Association of Health and Science Education Partnerships, President

**National Advisory Boards**

2004-2006 University of Washington and Northwest Association for Biomedical Research, Professional Development Advisory Committee, *Collaborations to Advance Understanding of Science and Ethics* (CAUSE) project

2004-2005 NIH/National Human Genome Research Institute, Career DVD Working Group

2006 Dolan DNA Learning Center, Cold Spring Harbor Laboratory, RNAi Curriculum Advisory Committee

2007-2010 University of Washington and Northwest Association for Biomedical Research, National Advisory Committee for the *Collaborations to Advance Understanding of Science and Ethics* (CAUSE) project

2007-2010 Centers for Disease Control, Evaluation of Genomic Applications in Practice and Prevention (EGAPP) Stakeholders Group

2007-2010 American Society of Human Genetics, National Advisory Board, *Geneticist Educator Network of Alliances* (GENA) project

2008 NIH Blueprint Initiative on K-12 Efforts

2009-present Arkitek Studios and Northwest Association for Biomedical Research, National Advisory Committee, *Ethics Training Health Oriented Software* project

2009-present National Coalition for Health Professional Education in Genetics, Genetic Alliance, Harvard Partners, and March of Dimes, National Advisory Committee, *Family History for Prenatal Providers* project

2011-present University of Texas Health Science Center, National Advisory Committee, *NIH Science Education Partnership Award Website* project

**Service**

**Committee Service – National Organizations**

2000-2006 National Association of Biology Teachers, International Activities Committee

2004-2008 National Science Teachers Association, *The Science Teacher* Advisory Board and Review Panel

2005 National Association of Biology Teachers, Professional Development Committee

2006-present NCRR Science Education Partnership Award Annual Conference, Organizing Committee Chair

2007-2008 National Association of Health and Science Education Partnerships, President-Elect and Executive Council member

2010-present American Society of Human Genetics, Information and Education Committee

**Grant Review Panels**

NIH Challenge Grants (2009)

NIH NCRR (2005)

NIH NIAID (2010, 2011)

NIH NIMH/NINDS (2011, 2011)

NIH SBIR/STTR (2009, 2010, 2011, 2011)

NSF (2006, 2006, 2010)

**Professional Journal Feature Author**

2007-present CBE–Life Sciences Education (American Society for Cell Biology), WWW Feature Author

**Professional Journal Manuscript Reviewer**

2000-presentThe American Biology Teacher

2004-present The Science Teacher

2005-present CBE–Life Sciences Education

**Committee Service – University of Utah**

1999-2002 Health Sciences Center committees for Health Professions Academy and Health Sciences Academy

1999-2008 Utah Museum of Natural History committees: Museum Vision Committee, two Director of Education search committees, a School Programs Coordinator search committee, a Director of School Programs search committee

2006-2009 Utah Museum of Natural History, Life Science Observatory Advisory Committee for new Museum

2007 University Neighborhood Partners, Community-Based Research Collaborative Committee

2008-2009 Center for Science and Mathematics Education, Director Search Committee

2008-2010 Center for Clinical and Translational Science, Website Committee

2008-2010 Center for Clinical and Translational Science, MyRA Website Committee

2009-2010 Center for Science and Mathematics Education, Steering Committee

2008-present Center for Clinical and Translational Science, Leadership Team

2010-present Masters of Science for Secondary Science Teachers, Steering Committee for Biology/Chemistry Cohort

2011-present Curriculum Committee, School of Medicine

2012-present Faculty Task Force on Multiple Approaches to Course Instruction, College of Education

**Committee Service – Utah State Office of Education**

1999-present State Science Education Coordinating Committee

2002-2008 Inservice Sub-committee

2004-2008 Science Education Research Committee

2005 Working Group: Teaching of Evolution Position Statement for the Utah State Board of Education

2009 Science Education Steering Committee

2010-present State Science Education Leadership Team

**Committee Service – Community**

2005-2008 Family Health History Task Force

2011-present Coalition for a Healthier Community for Utah Women and Girls; Advisory Committee

**Professional Organizations**

American Public Health Association

American Society of Human Genetics

Association for Science Teacher Education

Association for Supervision and Curriculum Development

Colorado Association of Science Teachers

Colorado Biology Teachers Association

National Association of Biology Teachers

National Association for Research in Science Teaching

National Association of Health and Science Education Partnerships

National Science Teachers Association

Utah Science Teachers Association

**Grants, Contracts and Gifts**

**Active: Principal Investigator**

2009-2012 Howard Hughes Medical Institute. 51006109. Genetics for Your Life. Principal Investigator. $750,000 (9/1/07-8/31/12); Supplement, $30,942 (7/1/09-6/31/10).

2010-2015 NIH/National Center for Research Resources. U13RR024901. NCRR Science Education Partnership Award (SEPA) Annual Program Director Conference. Principal Investigator. $390,781 (09/25/10-07/31/15).

2011-2014 Utah State Office of Education. Utah-Focused Earth Science Resources for Students and Teachers. Principal Investigator. $346,007 (09/26/11-06/30/14).

2011-2015 NIH/National Institute of Allergy and Infectious Diseases. R25AI095212. Your Body’s Microbial Ecosystem: Web-Based Curriculum for Secondary Science. Principal Investigator. $472,859 (07/01/11-06/30/15).

2011-2016 NIH/National Center for Research Resources. R25RR032174. Inside Your Body: Web-Based Curricula for Secondary Science. Principle Investigator. $1,331,206 (08/01/11-04/30/16).

2011-2016 NIH/National Institute on Drug Abuse. R25DA033031. The Neuroscience of Our Senses. Principal Investigator. $1,331,516. (09/15/11-07/31/16).

**Active: Collaborator**

2008-2012 NIH/National Human Genome Research Institute.R01HG004970. Methods for Promoting Public Dialogue on the Use of Residual Newborn Screening Samples for Research. Jeffrey Botkin, Principal Investigator. $1.68 million (10/01/08-09/30/12). Role: Project team member; lead development of educational videos.

2008-2013 NIH/National Center for Research Resources. UL1RR025764. The University of Utah Center for Clinical and Translational Research. Donald McClain, Principal Investigator. $34.98 million (05/19/08-04/30/13) Role: Associate Director, Community Engagement Core.

2010-2012 Health Resources and Services Administration. D1BRH20425. Congressionally-Mandated Health Information Technology Grants. Joyce Mitchell, Principal Investigator. $1.584 million (09/01/10-08/31/12). Role: Project team member; lead development of educational videos.

2011-2014 Utah State Office of Education. Physical Science Inquiry Academies for Elementary Teachers. Mary Alice Rudelich (Granite School District), Principal Investigator. $345,000 (09/21/11-05/31/14). Role: Key personnel; supervise project implementation and evaluation.

2011-2014 NSF. 1135355. Cyberinfrastructure to Advance High Performance Water Resources Modeling (CI-WATER). Norman Jones and Fred Ogden, Principal Investigators. $1,335,884. (09/01/11-08/31/14) Role: Education team member; lead teacher professional development and curriculum development.

2011-2015 NIH/National Human Genome Research Institute. R01HG006266. Parent Education about Newborn Screening and Bloodspot Retention. Jeffrey Botkin, Principal Investigator. $2,152,029 (09/20/11-06/30/15). Role: Project team member; lead development of educational video, multi-media materials, and website.

2011-2016 NIH/National Institute of Child Health and Human Development. R01HD069045. Pilot Newborn Screening Project for Identification and Prospective Followup of Infants with Spinal Muscular Atrophy. Kathryn J. Swoboda, Principal Investigator. $4,499,971 (04/20/11-03/31/16). Role: Project team member; lead development of educational video.

**Completed**

1982-1984 March of Dimes. Role of Action Potentials in CNS Development. Mark W. Dubin, Principal Investigator. Co-wrote grant. $36,000 direct costs (1982-1984).

1982-1990 NIH/National Eye Institute.Role of Action Potentials in Visual System Development. Mark W. Dubin, Principal Investigator. Co-wrote grant. $665,638 direct costs (1982-1990).

1987-1990 National Science Foundation Pre-doctoral Fellowship. $36,900 (1987-1990).

1987-1990 University of Colorado Doctoral Research Grant. $6,000 (1987-1990).

1988 University of Colorado Graduate Dean's Small Grant Award. $500 (1988).

1989 University of Colorado Fellowship to attend Organization for Tropical Studies Tropical Biology course. $2,000 (1989).

1990 University of Colorado Doctoral Fellowship. $1,445 (1990).

1994 Kansas State University. Genetics of Yeast workshop fellowship; mini-grant for presenting teacher workshop and materials for teachers (1994).

1994, 1996 Boston University School of Education. Microcosmos course fellowship, and mini-grants for presenting teacher workshop and teacher materials (1994, 1996).

1995-1999 Howard Hughes Medical Institute. Hughes Biological Science Education Initiative. Mark W. Dubin, Principal Investigator. Co-wrote with Julie Graf, HBSEI Program Director, University of Colorado at Boulder. $1.8 million (1995-1999).

1995 Cold Spring Harbor Laboratory, DNA Learning Center. Human Genome Diversity workshop fellowship (1995).

1996 Kansas State University. GENE ’96 workshop fellowship and mini-grants for teacher workshop presentations (1996).

1999-2001 Western Michigan University. NSF Summer Institute on Evaluation fellowship (1999); two follow-up internships (1999-2000, 2000-2001).

1999-2002 Howard Hughes Medical Institute. Hughes Biological Science Education Initiative. Co-wrote with Principal Investigators, Mark W. Dubin and Julie Graf, University of Colorado at Boulder. $1.8 million (1999-2002).

2000-2005 NIH/National Center for Research Resources. R25RR15650. Scientific Thinking and Internet Learning Technologies. Principal Investigator. $609,782 (2000-2005).

2001-2002 R. Harold Burton Foundation. Adding Expertise to the Genetic Science Learning Center Programs. Principal Investigator. $52,000 (2001-2002).

2001-2004 Howard Hughes Medical Institute. 51000125. Genetic Science Education Program. Principal Investigator. $287,195 (9/1/01-8/31/04).

2001-2006 NIH/National Center for Research Resources. R25RR16291. Genome Science Education Program. Principal Investigator. $1.62 million (7/1/01-6/30/06).

2002 Orange County Cultural Vision Fund. Bioethics for the Heredity and Genetics Course. $3,500 gift (2002).

2002-2003 Howard Hughes Medical Institute. 51003713. A Workshop on Science Curriculum Development for K-12 Outreach Professionals. Principal Investigator. $50,000 (2002-2003).

2002-2007 NIH/National Institute on Drug Abuse. R25DA15461. Genetics of Addiction Program. Principal Investigator. $810,000 (8/1/02-7/31/07).

2003, 2005 Castle Foundation. $4,000/year gifts (2003, 2005).

2004-2005 Howard Hughes Medical Institute. 51004187. Parents Homeschool Project. Co-Principal Investigator; $50,000 (1/1/04-12/31/05).

2005-2006 Utah Department of Health Chronic Disease Genomics Program. Health Family Tree Curriculum. Principal Investigator. $20,000 (2005-2006).

2005-2007 Utah State Office of Education. Heredity and Genetics Course. Principal Investigator. $15,000 (2005-2007).

2005-2008 Utah State Office of Education. 21st Century Biology: Teaching and Learning in Today’s World. Principal Investigator. $401,700 (3/1/05-5/31/08).

2005-2011 March of Dimes. Family Genetics Education Through School and Community Partnerships (subcontract with MoD on cooperative agreement with the Health Resources and Services Administration. 5-U33-06-002).Principal Investigator. $300,000 (06/01/05-05/31/10); Supplement, $3,000 (06/01/09-05/31/10); Supplement, $5,000 (05/01/11-07/31/11).

2006 NIH/National Human Genome Research Institute. National DNA Day Speaker PowerPoint and Packet. Principal Investigator. Contract. $8,717 (2006).

2006 Utah Department of Health Chronic Disease Genomics Program. Field Testing the Using Family History to Improve Your Health Curriculum. Principal Investigator. $13,208 (2006).

2006 International Development and Resources, Inc. NIH/National Human Genome Research Institute Career DVD Scripts. Principal Investigator. Sub-contract. $52,308 (2006).

2006 NIH/National Center for Research Resources. R25RR016291-05S1. SEPA 2006: Annual NCRR Science Education Partnership Award Conference. Principal Investigator. $10,000 (2006).

2006-2007 Sorenson Molecular Genealogy Foundation. $12,651 (2006); $3,000 and $49,368 contracts (2007).

2006-2011 NIH/National Center for Research Resources. R25RR023288. Genome Science for Health: Web-based Curricula for Biology, Phase I + II. Principal Investigator. $1.35 million (09/15/06-06/30/11); Supplement, $8,467 (07/01/08-06/30/09); Supplement, $200,000 (07/01/09-06/31/11).

2007-2010 NIH/National Center for Research Resources. R13 RR024901. Science Education Partnership Award (SEPA) Annual Program Director Conference. Principal Investigator. $190,930 (09/25/07-07/31/10); Supplement, $10,000 (2008).

2008-2009 Pachyonychia Congenita Project. Pachyonychia Congenita Webpage and Animation. Principal Investigator. Contract, $4,000 (2008-09).

2008-2009 Westminster College, Great Salt Lake Institute. Great Salt Lake Curriculum Development. Principal Investigator. $32,470 (2008-09).

2008-2011 Utah State Office of Education. Physical Science Inquiry Academies for Elementary Teachers. Principal Investigator. $346,464 (03/01/08-05/31/11).

2009 NIH/National Human Genome Research Institute. National DNA Day Speaker PowerPoint Additions. Principal Investigator. Contract. $9,990 (2009).

2009 Utah State Office of Education, Heredity and Genetics Endorsement Course. Principal Investigator. $10,000 (July 1-31, 2009).

2009-2010 NIH National Human Genome Research Institute. HHSN268200900354P. Engaging Diverse Utah Communities in Dialogues About Genetics. Principal Investigator. $107,000 (8/4/09-7/31/10).

2010 Utah State Office of Education. Genome Science Summer Institute. Principal Investigator. $13,736. (05/01/10-08/31/10).

**Training**

**Graduate Students**

*Graduate Committee Chair*

2007-2010 Dina Drits, Ph.D., Department of Educational Psychology, College of Education, University of Utah; currently, Research Associate, Genetic Science Learning Center, University of Utah.

2008-2009 Ryan Loveland, Department of Teaching and Learning, College of Education, University of Utah; currently a Science Teacher in Jordan School District.

2010-present Meghan Chirpich, Genetic Counseling Program, Department of Human Genetics, University of Utah

*Graduate Student Committees*

2009 Jennifer Hajj, MS, Department of Parks, Recreation and Tourism, University of Utah; currently Hawkwatch International, Salt Lake City, UT.

2009 Amy Nisselle, PhD., Murdoch Childrens Research Institute, The University of Melbourne, Australia; currently, Multimedia and Evaluation Manager, Dolan DNA Learning Center, Cold Spring Harbor Laboratory.

2009-2012 Michelle Snow, PhD., Department of Family and Preventative Medicine, University of Utah.

2010-present Karen Blake, Klaus Bienek, Kimberly Dyal, Katharine Byerline Thayer, Richard Scott, Alenxandra Kunz, Shannon Chabries, Masters of Science in Secondary Science Teaching program, College of Science, University of Utah.

2011-present Amara Lauritzen, Genetic Counseling Program, Department of Human Genetics, University of Utah

*Training/Mentoring in Science Education and Outreach, University of Colorado at Boulder, Hughes Biological Science Education Initiative (mentoring years shown)*

1992-1993 Diane Fisher, Ph.D.

1992-1993 Tracy Benning, Ph.D., currently Associate Professor, Biology, Spelman College.

1992-1993 Jorge Ortiz-Zayas, Ph.D., currently Wildlife Biologist, University of Puerto Rico, Institute for Tropical Ecosystem Studies.

1993-1994 Kirk Jensen, Ph.D., currently Group Leader, Centre for the Molecular Genetics of Development, University of Adelaide, Australia.

1993-1994 Antonio Monterrosa, Ph.D., currently Science Teacher, Manual High School, Denver, CO.

1994-1995 Deborah McDonough, Ph.D., currently Lecturer, University of New England.

1994-1996 Inge Schuurmans, Ph.D.

1994-1997 Jorge A. Moreno, Ph.D.

1994-1998 Samatha Messier, Ph.D., currently Science Director, Boulder Valley School District, Boulder, CO.

1995-1996 James Chace, Ph.D.

1996-1997 Velia Mitro, Ph.D.

1996-1997 Wanda Lewis, Ph.D.

**Postdoctoral Fellows**

2002-2004 Melvin Limson, Ph.D.; currently Director of Scientific Programs, Association for Molecular Pathology.

2005-2007 Belen Hurle, Ph.D, NIH National Human Genome Research Institute Science Education Fellow (Fellowship Committee member); currently Staff Scientist, NHGRI Genome Technology Branch; Program Coordinator, NHGRI Intramural Training Office; Public Health Educator, NHGRI Education and Community Involvement Branch.

**Junior Faculty**

2007-2008 Mandy Allison, M.D., M.S.P.H., Division of General Pediatrics, University of Utah School of Medicine (mentor for Mentored Public Health Research Scientist Development Award - K01).

**Publications**

**Papers and articles**

1. Archer SM, MW Dubin and LA Stark (1982) Abnormal development of kitten retino-geniculate connectivity in the absence of action potentials. Science 217:743-745
2. Kalil RE, MW Dubin, G Scott and LA Stark (1986) Elimination of action potentials blocks the structural development of retinogeniculate synapses. Nature 323:156-158.
3. Dubin MW, LA Stark and SM Archer (1986) A role for action potential activity in the development of neuronal connections in the kitten retinogeniculate pathway. Journal of Neuroscience 6:1021-1036.
4. Stark LA, and MW Dubin (1986) Response properties of relay cells in the lateral geniculate nucleus of neonatal kittens. Vision Research 26:409-414.
5. Stark LA, Giles R and Johnson J (2008) Consumer Genetics Education Network (CGEN): Genetics Education Materials for Hispanic/Latino Students and Families. NCC Collaborator 2 (2):3. (http://www.nccrcg.org/newsletter/NCC\_Collaborator\_06-09-08.pdf)
6. Stark LA (2008) Bringing Developmental Biology to Life on the Web. CBE-Life Sciences Education 7:5-9.
7. Stark LA (2008) Plant Movements Revealed. CBE-Life Sciences Education 7:284-287.
8. Stark LA (2009) Darwin on the Web: Resources for Darwin 200 and Beyond. CBE-Life Sciences Education 8:1-6.
9. Stark LA and Pompei K (2010) Making Genetics Easy to Understand. Science 327:538-539 (PubMed ID: 20110495).
10. Stark LA (2010) Epigenetics Online: Multimedia Teaching Resources. CBE-Life Sciences Education 9:6-9.
11. Stark LA (2010) Beneficial Microorganisms: Countering Microbephobia. CBE-Life Sciences Education. 9:387-389.
12. Stark LA (2011) Life Sciences Career Exploration. CBE-Life Sciences Education. 10:231-234.
13. Rothwell EW, Anderson RA, Burbank MJ, Goldenberg AJ, Lewis MH, Stark LA, Wong B and Botkin JB (2011) Concerns of newborn blood screening advisory committee members regarding storage and use of residual newborn screening blood spots. American Journal of Public Health. doi: 10.2105/AJPH.2010.200485
14. Botkin JR, Rothwell E, Anderson R, Stark L, Goldenberg A, Lewis M, Burbank M and Wong B. (2012) Public attitudes regarding the use of residual newborn screening specimens for research. Pediatrics. 129:231-238. doi: 10.1542/peds.2011-0970

**Book chapters**

1. Thomas L, Stark LA and Judd-Murray, MR (2002) Activities for “Standard V: Inherited Traits” IN Fifth Grade Teacher Resource Book, eds, Embley P. and Nance P. Utah State Office of Education and Jordan School District.
2. Stark, L (2002) Does Sunscreen Protect My DNA? IN Relating Genetics to Everyday Life: A Collection of Activities for the High School Biology Classroom. The Science House, ed., North Carolina State University.
3. Wilson ET and Stark L (2002) Finding a Gene on the Chromosome Map IN Relating Genetics to Everyday Life: A Collection of Activities for the High School Biology Classroom. The Science House, ed., North Carolina State University.
4. Price B, Wilson ET and Stark L (2002) Mystery Yeast Mutation IN Relating Genetics to Everyday Life: A Collection of Activities for the High School Biology Classroom. The Science House, ed., North Carolina State University.
5. Stark LA (2004) Life Science Education: Preparing Today’s Students for Tomorrow’s World, pp. 1-16, IN Innovation and Diversity in Education, Khoo A, Heng MA, Lim L, and Ang RP, eds. McGraw-Hill Education (Asia), Singapore.

**Electronic media: Educational materials published on the Genetic Science Learning Center’s Learn.Genetics and Teach.Genetics websites** (http://learn.genetics.utah.edu and http://teach.genetics.utah.edu)

1. Stark L (1999) *DNA Extraction From Wheat Germ.*
2. Stark L (2000) *Build A Gel Electrophoresis Chamber.*
3. Stark L (2000) *Colorful Electrophoresis.*
4. Starr H and Stark L (2001) *How to Extract DNA From Anything Living*
5. Stark L (2002) *Does Sunscreen Protect My DNA?*
6. Wilson ET and Stark L (2002) *Finding a Gene on the Chromosome Map.*
7. Price B, Wilson ET and Stark L (2002) *Mystery Yeast Mutation*
8. Stark L (2002) Contributing writer and editor. *Stem Cells in the Spotlight* module*.*
9. Stark L (2002) Contributing writer and editor. *Cloning in Focus* modul*e.*
10. Stark L (2003) Contributing writer and editor. *Gene Therapy: Molecular Bandage?* module.
11. Stark L (2003, 2006) Contributing writer and editor. *Introduction to Heredity* (Grades 5-7) activities*.*
12. Stark L (2005) Contributing writer and editor. *Personalized Medicine: Pharmacogenomics* module.
13. Stark L (2005) Executive Producer. *The New Science of Addiction: Genetics and the Brain* module.
14. Stark L (2006) Contributing writer and editor. *Using Family History to Improve Your Health* module..
15. Stark L (2008) Executive Producer. *Molecular Genealogy*.
16. Stark L (2008) Executive Producer. *Amazing Cells* module. Genetic Science Learning Center, University of Utah.
17. Stark L (2009) Executive Producer. *Epigenetics* module. Genetic Science Learning Center, University of Utah.
18. Stark L (2009) Executive Producer. *Great Salt Lake Ecology* module. Genetic Science Learning Center, University of Utah.
19. Stark L (2010) Executive Producer. *Variation, Selection and Time* module. Genetic Science Learning Center, University of Utah.
20. Stark L (2011) Executive Producer. *Stem Cells* module. Genetic Science Learning Center, University of Utah.

**Museum exhibit**

1. Crowley C, Menlove R, Stark L, and Starr H (2005) *Stem Cells and You*. Genetic Science Learning Center, University of Utah and Utah Museum of Natural History.

**Evaluation reports**

1. Russon C, Stark L, Horn J (2000) *RSI Survey Report* for the NSF Rural Systemic Initiatives Evaluation Study (http://www.wmich.edu/evalctr/rsi/rsi\_survey\_report.pdf).
2. Stark LA (2001) *Changes in Classroom Assessment Practices and Teacher Evaluation in Rural Schools* for the NSF Rural Systemic Initiatives Evaluation Study.

**Meeting proceedings**

1. Logan J, Stark LA, Kamerath K, and Dart DS. (2000) Learning Strategies for Science Education Websites: Meeting Proceedings (published online; no longer available)
2. Stark, LA (2008) SEPA 2008: Annual NCRR Science Education Partnership Award Conference (http://www.ncrrsepa.org/About\_us/Myear.asp?ID=M2008).
3. Stark LA, Drits D, Nicholson B and Vyazovkina P (2009) SEPA 2009: Annual NCRR Science Education Partnership Award Conference Report.
4. Stark LA, Drits D, Vyazovkina P and Nicholson B (2010) SEPA 2010: Annual NCRR Science Education Partnership Award Conference Report.

**Letters to the editor**

1. Logan JS and Stark LA (Winter 2002-2003) Opinion: How can high school teachers best prepare today's students to become tomorrow's educated patients and consumers of health care?. University of Utah Health Sciences Report. (Available online at http://www.med.utah.edu/pubaffairs/hsr/winter2002-03/opinion.html).

**Published abstracts of presentations at professional meetings (refereed)**

1. Stark LA. and MW Dubin (1985) LGN relay cell response properties in neonatal kittens. Investigative Ophthalmology and Visual Science 26 (Suppl.):266.
2. Stark LA (1988) Receptivity and growth of the gynoecium in rapid-cycling *Brassica campestris*. Guild of Rocky Mountain Population Biologists.
3. Stark LA (1989) The relationship of seed weight to several vegetative, reproductive and genotype characters in rapid-cycling *Brassica campestris*. Guild of Rocky Mountain Population Biologists.
4. Stark LA (1990) Initial seed weight and flower age at pollination affect reproductive fitness in rapid-cycling *Brassica campestris*. Fourth International Congress of Systematic and Evolutionary Biology.
5. Stark LA (1990) Flower age at pollination affects reproductive fitness in rapid-cycling *Brassica campestris*. Bulletin of the Ecological Society 71(2):335.
6. Stark LA (1990) Initial seed weight and flower age at pollination affect reproductive fitness in rapid-cycling *Brassica campestris*. Proceedings, Sixth Crucifer Genetics Workshop, p.37
7. Stark LA (1990) Initial seed weight and flower age at pollination affect reproductive fitness in rapid-cycling *Brassica campestris*. Guild of Rocky Mountain Population Biologists.
8. Stark LA (1991) Cross-generational effects on fitness in *Brassica rapa*. Guild of Rocky Mountain Population Biologists.
9. Stark LA (1991) Parental effects on reproductive fitness extend across generations in rapid-cycling *Brassica rapa*. American Journal of Botany 78(Suppl.):73-74.
10. Stark LA (1992) Associations between heterozygosity level at two loci and fitness in *Brassica rapa*. Society for the Study of Evolution.
11. Stark LA (1992) Effects of flower age at pollination on seed quality and fitness in *Brassica rapa*. Bulletin of the Ecological Society 73(2):353.
12. Stark L (2004) *Evaluation of the Cloning in Focus Online Curriculum Module*. National Association of Biology Teachers.
13. Stark L (2005) *Genome Science Education Program: Web-based Resources for Heath Care Providers and Patients*. National Coalition of Health Professional Education in Genetics.
14. Stark L, Giles R, Johnson J and Eddings S (2007) *Family Genetics Education Through School and Community Partnerships*. American Public Health Association.
15. Stark L (2008) *Resources on the Learn.Genetics and Teach.Genetics Websites.* National Association of Biology Teachers.
16. Giles R, Johnson J and Stark L (2008) *Using Family History to Improve Your Health: A School-Based Approach for Reaching Students and Families*. Genetic Alliance.
17. Stark L, Giles R, Johnson J and Eddings S (2008) *A Community-Based Participatory Approach to Developing Genetics Education Materials for Hispanic/Latino Students and Families and the Pacific Islander Community*. American Society of Human Genetics.
18. de la Cruz C, Gross D, Kyler P, Richardson F, Stark L and Sze R (2009) *CGEN Project: Culturally Sensitive Interventions to Improve Genetic Literacy*. Genetic Alliance.
19. Ashton D, Stark L, Sim S-C, Richardson F and de la Cruz C (2009) *Increasing Genetic Literacy in Underserved Populations Using Community-Based Participatory Principles: The Consumer Genetics Education Network (CGEN) Project*. New England Regional Minority Health Conference.
20. Stark LA, Eddings S, Giles R and Johnson J (2009) *Effectiveness of Educational Materials Designed to Increase Genetic Literacy Among Hispanic/Latino Elementary and Secondary Students and Their Families*. American Public Health Association.
21. Stark L, Giles R, Johnson J and Eddings S (2009) *Culturally and Linguistically Appropriate Genetics Education Materials for Hispanic/Latino Students and Families: Testing and Outcomes*. American Society of Human Genetics.
22. Stark L and Aiono H (2010) *Community Genetics and Health Forums: A Model Community Engagement Program for Leadership Development.* American Society of Human Genetics.
23. Stark L, Wood S and Drits D (2010) *A Quasi-Experimental Analysis of the Physical Science Inquiry Academy Program for Elementary Teachers.* Mathematics and Science Partnership Program Regional Conference, San Diego, CA.
24. Stark LA (2011). *Multimedia approaches to supporting teachers in implementing curriculum materials.* AAAS, Washington, DC.
25. Drits D & Stark, LA (2011). *The role of school context in advancing teacher change in the year following science professional development*. Poster presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
26. Drits D & Stark LA (2011). *School and teacher factors as contributors to the effectiveness of an elementary-level professional development program*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Orlando, FL.
27. Drits D & Stark L (2011). *Online Biology Resources Provide Background Information for Science and Society Discussions*. Poster presented at the annual meeting of the International Society for the History, Philosophy, and Social Studies of Biology, Salt Lake City, UT.

**Invited Lectures and Presentations**

International

2003 Asia Pacific Conference on Education. Innovative Practices in Life Science Education (plenary talk), Singapore (June 3, 2003).

2004 National Institute of Education, DNA Centre. Cloning, Stem Cells and Gene Therapy (workshop), Singapore (March 17-18, 2004).

2007 Instituto Politécnico Nacional, Planetario Luis Enrique Erro, The New Science of Addiction: Genetics and the Brain (keynote address at opening of new exhibit), México City, México (May 29, 2007).

2007 16th International Chromosome Conference, E-learning Strategies for Engaging 21st Century Students in Cytogenetics (plenary talk), Amsterdam, The Netherlands (August 28, 2007).

2009 Department of Education, Queensland, Australia (workshops):

 Wavell Senior High School, Brisbane, Genetics for All Students (February 2, 2009).

 Wavell Senior High School, Brisbane, Advanced Genetics (February 3, 2009).

 Cavendish Road Senior High School, Brisbane, Amazing Cells (February 5, 2009).

National-Level Organizations and Institutions

2000 National Association of Biology Teachers. Microbe World Institute IV. Microbes in Molecular Biology (workshop). Salt Lake City, UT. (August 2000).

2000 Ecological Society of America. Career Opportunities in Science Education (panel presentation). Snowbird, UT (August 8, 2000).

2005 NIH/National Human Genome Research Institute, Education and Community Involvement Branch. Genetic Science Learning Center Programs (NIH-wide talk). Bethesda, MD (May 25, 2005).

2008 March of Dimes. Development of Genetics Education Materials Using a Community-Based Participatory Approach (Grand Rounds talk). White Plains, NY (May 27, 2008).

2010 NIH National Center for Research Resources. Synergy Among NIH-Funded Education Projects (NIH-wide talk). Bethesda, MD (March 17, 2010).

2010 American Society for Cell Biology. Cells, Cell Communication and Stem Cells (workshop). Philadelphia, PA (December 12, 2010).

2011 NIH National Human Genome Research Institute. Inherited Health: Six Diverse Utah Communities Collaborate for Genetics, Chronic Disease and Family Health History Education (NIH-wide talk). Bethesda, MD (February 15, 2011).

2011 National Association of Biology Teachers. Lamarck Wasn’t All Wrong: The New Science of Epigenetics (Christine Chantry Memorial Lecture). Anaheim, CA (October 14, 2011).

2011 NIH National Human Genome Research Institute, Genomic Literacy Workshop. Formal Genetic and Genomic Science Education (keynote address). Bethesda, MD (November 17, 2011).

U.S. Universities and Colleges

2000 Brigham Young University. Central Utah Science and Engineering Fair. Everyday DNA and Kitchen Electrophoresis workshops (Spring 2000).

2001-2004 University of Washington and the Northwest Association for Biomedical Research. Ethics in the Science Classroom course; co-teacher (Summers 2001, 2002, 2004).

2003 Weber State University, First Year Science Teachers Program. DNA Extraction and Genetic Science Learning Center Resources. (January 2002, 2003).

2002 Virginia Polytechnic Institute and State University, Biotechnology 2002 Conference. Genetic Testing of Newborn Infants (Summer 2002).

2002, 06, 07 Westminster College, Department of Education. Genetics Activities for Elementary Students. (November 2002, March 2006, March 21, 2007).

2002 Westminster College, Departments of Biology and Education. Genetics Resources on the Internet. (November 2002).

2005, 2006 University of Washington and Northwest Association for Biomedical Research. Genetic Modification in Humans – Therapy vs. Enhancement. Workshop was part of Ethics in the Science Classroom course. (July 19, 2005, July 18, 2006).

2006 Cold Spring Harbor Laboratory, New Horizons in Internet Site Development. Exploragraphic™: Learning Designed for Today’s Tech-savvy Students. (October 25, 2006).

2008 Milwaukee School of Engineering, Center for Biomolecular Modeling. Resources on the Learn.Genetics Website. (July 8, 2008).

2008 Columbia University, Summer Research Program for Science Teachers. The New Science of Addiction: Genetics and the Brain. (July 28, 2008).

2011 University of Michigan, School of Public Health, HMP 517 Issues in Public Health Genomics course. Genetics Education. (September 20, 2011).

University of Utah

2000 Utah Museum of Natural History. Exploring DNA and Genetics (February 2000).

2005 University of Utah, Genetics Think Tank course, The Genetic Science Learning Center and Public Education in Genetics (November 1, 2005).

2005, 2006 University of Utah, Occupational Therapy Program, Genetics for Occupational Therapists, Salt Lake City, UT (August 26, 2005, August 31, 2006).

2006 Society for the Advancement of Genetic Exploration (SAGE), University of Utah, The New Science of Addiction: Genetics and the Brain – Online Education Resources (May 16, 2006).

2007 Young Presidents Organization, University of Utah, Addiction Resources on the Learn.Genetics Website (February 15, 2007).

2008 Utah Museum of Natural History, Introduction to Heredity (June 3, 2008).

2008 Utah Museum of Natural History, Science Movie Night: The Secret of Photo 51, Salt Lake City Public Library (May 6, 2008).

2008 University of Utah, Pediatric Clinical and Translational Research Scholar Seminar, The CCTS Community Engagement Core: An Introduction, Salt Lake City, UT (September 24, 2008).

2010 University of Utah, Department of Educational Psychology, A Participatory Design Approach to Educational Material Development, Salt Lake City, UT (February 2, 2010).

2010 University of Utah, Salt Lake Valley Science and Engineering Fair, Atoms to Universe: Exploring Size and Scale (2010).

2011 University of Utah, Department of Family and Preventive Medicine, Public Health Grand Rounds. Preparing the Public for Personalized Healthcare Through Genetics Education and Community Engagement (January 11, 2011)

State Organizations

1995 Rocky Mountain Chapter of the Sierra Club Annual Retreat. Recycled Papermaking. (Fall 1995).

1995 Colorado Biology Teachers Association spring meeting. Beach Mutants: Yeast and UV (workshop). Denver, CO (Spring 1995).

1999 45th Annual Utah Applied Technology Education Conference. Biotechnology Curriculum Resources and Development, Kaysville, UT (Fall 1999).

2005 Utah Department of Health. Stem Cells in the Spotlight. Salt Lake City, UT (July 27, 2005).

2007 Utah Department of Health. The New Science of Addiction, Genetics and the Brain. Salt Lake City, UT (February 13, 2007).

2007 Utah Public Health Association. Genomics for Today and Tomorrow in Public Health. Salt Lake City, UT (April 11, 2007).

2010 Utah State Office of Education, Presidential Awards for Mathematics and Science Education Finalist Recognition Dinner. Exploring Scale: An Opportunity for Lifelong Learning. Salt Lake City, UT (2010).

Local School Districts and Organizations

1992 Expanding Your Horizons. What Color of Light Do Plants Need? Boulder, CO. (Spring 1992).

1992 St. Vrain School District. Family Science Night. How Do I Study Plants? Longmont, CO (Fall 1992).

1991, 1992 St. Vrain School District. Wisconsin Fast Plants™. Longmont, CO. (Spring 1991, 1992).

1994 Academy School District Wisconsin Fast Plants™. Colorado Springs, CO. (Fall 1994).

2000 Alpha Lambda Chapter of Epsilon Sigma Alpha Sorority. Exploring DNA and Genetics. Salt Lake City, UT. (November 2000).

2002 Alpine School District. Heredity for 5th Grade. Orem, UT. (March 14, 2002).

2004 Jordan School District. Genetics Resources for High School Biology. Sandy, UT. (June 16, 2004).

2006 Salt Lake City School District. Genetics Activities for the Seventh Grade Science Core Curriculum. Salt Lake City, UT (November 10, 2006).

2006 Jordan School District. Resources on the Learn.Genetics Website. Sandy, UT (December 13, 2006).

2006 LDS Hospital, DNA Day program. From The Basics to the Human Genome Project and Beyond. Salt Lake City, UT (April 26, 2006).

2007 Salt Lake City School District, Introduction to Heredity for Fifth Grade Teachers. Salt Lake City, UT (November 7, 2007).

2007 Salt Lake City School District, Using Family History to Improve Your Health. Salt Lake City, UT (October 25, 2007).

2008 Granite School District. Introduction to Heredity. Salt Lake City, UT (January 30, 2008).

**Consultant**

1993-1997 University of Colorado at Boulder, Department of Molecular, Cellular and Developmental Biology. Development of laboratory investigations for MCDB 1151 Introduction to Molecular Biology Laboratory and MCDB 2151 Principles of Genetics Laboratory.

1994 University of Colorado at Boulder, School of Education. Development of a unit on Wisconsin Fast Plant™ Explorations for Elementary Science Methods courses

1995 University of Colorado at Boulder, Science Discovery Program. Development of the elementary/middle school Science Explorers module Input and Output: Interactions Between Organisms and Their Environment.

1996 Bradley University, Department of Biology. Development of new laboratory investigations using Wisconsin Fast Plants™.

2002 Utah State Office of Education, Fifth Grade Teacher Resource Book.

2004 National Institute of Education, Singapore, Centre for Research in Pedagogy and Practice. Evaluation of DNA Centre @ NIE and recommendations for new programs (March 4-26, 2004).

2006-2008 Federation of American Scientists, University of Nebraska Medical Center, Virginia Tech, Northwest Association for Biomedical Research. Consultant on grant proposals and program development.

**Organize and Moderate National Meetings**

1999 Science Education Website Developers Meeting. University of Utah. (November 5-7, 1999).

2000 Learning Strategies for Science Education Websites. University of Utah. (November 2-4, 2000).

2003 Science Curriculum Development Workshop for K-12 Outreach Professionals. University of Utah. (January 12-17, 2003).

2004 Genetics in the 21st Century: A Conference for Life Science Educators. University of Utah. (November 30-December 1, 2004).

2006 SEPA 2006: Annual NCRR Science Education Partnership Award Conference. University of Utah (October 19-21, 2006).

2008 SEPA 2008: Annual NCRR Science Education Partnership Award Conference, Bethesda, MD (May 19-21, 2008).

2009 SEPA 2009: Annual NCRR Science Education Partnership Award Conference, St. Paul, MN (May 18-20, 2009).

2010 SEPA 2010: Annual NCRR Science Education Partnership Award Conference, Birmingham, AL (April 11-14, 2010).

2011 SEPA 2011: Annual NCRR Science Education Partnership Award Conference, Seattle, WA (May 8-11, 2011).

2012 NIH Annual Science Education Conference, Bethesda, MD (May 13-16, 2012).

**Teaching**

**Courses**

1976-1979 KC 1434 The Human Body, laboratory instructor. Grand Valley State University.

1976-1979 KC 1430 Descriptive Cell Biology, laboratory instructor. Grand Valley State University.

1976-1979 KC 1422 Human Genetics, laboratory instructor. Grand Valley State University.

1976-1979 KC 1420 Phylogeny/General Biology I, laboratory instructor. Grand Valley State University.

1978-1979 KC 1427 House Plants/Horticulture, laboratory instructor. Grand Valley State University.

1990 EPOB 3200 Genetics, Teaching Assistant, recitations. University of Colorado at Boulder (Fall 1990).

1992 MCDB 1060 Introduction to MCD Biology, co-taught with J. Richard McIntosh, Professor. University of Colorado at Boulder (Spring 1992)

1993 EPOB 1430 Introduction to Biology Laboratory. University of Colorado at Boulder (Spring 1993).

1994 EPOB 5100 Practical Botany. University of Colorado at Boulder (Spring 1993, Summer 1994).

1994 EDUC 4211 Methods in Elementary Science, co-taught with Ms. Kathleen Davis, Instructor. University of Colorado at Boulder (Fall 1994).

1995 EDUC 5215 Elementary Science Theory and Methods co-taught with Ms. Kathleen Davis, Instructor. University of Colorado at Boulder (Spring 1995).

1995 MCDB 6440 Current Topics in Molecular Biology: Food, Forensics, Pharmaceuticals, and Frontiers of Genetics. University of Colorado at Boulder (Summer 1995).

1996 EPOB 5110 Aquatic Habitats: Their Diversity and Inhabitants. University of Colorado at Boulder (Summer 1996).

1999-2000 HGEN 6230, section 3 Exploring Gel Electrophoresis: Biotechnology for the Classroom. University of Utah (Summer 1999, 2000).

1999-2006 HGEN 6230, section 1 Heredity and Genetics. University of Utah (Summer 1999, 2000, 2001, 2002, 2003, 2004, 2006).

2001-2004 HGEN 6240, section 1 Genome Science Education Master Teacher Program. Different topics each course: stem cells/cloning, gene therapy, pharmacogenomics, population genetics. University of Utah (Summer 2001, 2002, 2003, 2004).

2003-2004 HGEN 6240, section 2 Genetics and Addiction Master Teacher Program. Different topics each course: neurobiology/psychosocial factors/bioethics, genetics. University of Utah (Summer 2003, 2004).

2005 HGEN 6210, section 1 Health Family Tree Curriculum Development Workshop. University of Utah (Summer 2005).

2005 HGEN 6200, section 2 Genetics and Addiction. University of Utah (Summer 2005).

2005-2007 HGEN 6230, section 2 Genome Science in the 21st Century. University of Utah (Summer 2005, 2006, 2007).

2005-2008 HGEN 6200, section 1 Genetics in the 21st Century: Teaching and Learning in Today’s World. University of Utah (2005-06, 2006-07, 2007-08).

2006-2008 HGEN 6230, section 1 Genome Science for Health Master Teacher Program. Different topics each course: cell biology and cell signaling, developmental biology, and molecular genetics. University of Utah (Summer 2006, 2007, 2008).

2007-2008 HGEN 6220, section 2 Genetics for Your Life Master Teacher Program. University of Utah (Summer 2007, 2008).

2008 HGEN 6220, section 1 Technology Training. University of Utah (Summer 2008).

2008 HGEN 6200, section 1 Great Salt Lake Master Teacher Program. University of Utah (Summer 2008).

2008-2010 HGEN 6200, section 2 Physical Science Inquiry Academy. University of Utah (2008, 2009, 2010).

2008-2010 TL 5370/6370, Elementary Science Methods – Course Coordinator. University of Utah (Fall 2008-Spring 2010).

2009 HGEN 6220, section 1, Evolution Master Teacher Program. University of Utah (Summer 2009).

2010 HGEN 6230, section 1, Genome Science. University of Utah (Summer 2010).

2010 EDU 5370/6370, sections 1 & 2 Science Methods – Course Coordinator. University of Utah (Summer 2010)

2010-present EDU 5375/6375, section 1 Science Methods – Course Coordinator. University of Utah (Fall 2010-present)

2010-present EDU 6950, section 1, MSSST Biology/Chemistry Cohort Seminar. University of Utah (2010-11, 2011-12)

2011 HGEN 6200, section 1, Utah’s Earth Systems, Astrobiology and the Great Salt Lake. University of Utah (Summer 2011).

2011 HGEN 6230, section 2, The Human Microbiome. University of Utah (Summer 2011).

2011 HGEN 6230, section 1, Multitasking, Attention and Memory: The Science of Learning. University of Utah (Summer 2011).

2012 Medical Student Curriculum, Phase 2: (2.5) Metabolism and Reproduction; clinical cases small group discussion facilitator. University of Utah (Spring 2012)

**Workshops for K-12 Educators** (1-2 days each)

*Molecular Genealogy.* (Spring 2007).

*Pharmacogenomics: Drugs Designed for You.* (Fall 2004).

*Genetic Factors in Health and Disease.* (Spring 2000).

*Forensic Evidence: Clues from Variation Within and Among Species.* (Fall 1999).

*The Immune System - Friend and Foe*. Co-taught with Drs. Philippa Marrack and John Kappler, National Jewish Center and the Howard Hughes Medical Institute, Denver, CO; Dr. Kristin Swihart, MCD Biology, UCB; and Ms. Julie Graf, HBSEI Program Director. (Summer 1997).

*An Open-Ended Investigation in Genetics: It’s the Yeast You Can Do!* Co-taught with Mr. Richard Borinsky, Science Teacher, Broomfield HS, Broomfield, CO. (Spring 1997).

*“The Beetles” in Concert with the State Standards*. Co-taught with Ms. Jane Ballard, Science Teacher, Berthoud HS, Berthoud, CO. (Spring 1997).

*Biotechnology Made Easy.* Co-taught with Ms. Lisa Romero de Mendoza, HBSEI Program Coordinator. (Fall 1996, Summer 1997, Fall 1997).

*Let Wisconsin Fast Plants™ Grow On You!* (Fall 1996).

*Plant Lights in an Instant*. (Fall 1996).

*Create a Lab Coat to Dye For*. Co-taught with Ms. Cyndie Bleskan, Science Teacher, Place MS, Denver, CO. (Fall 1996, 1997).

*Fly Through Genetics.* Co-taught with Ms. Deborah McDonough, HBSEI Science Squad. (Sp 1996).

*Kitchen/Rainbow Electrophoresis*. Co-taught with Dr. Jorge A. Moreno, HBSEI Science Squad. (Spring 1995, Fall 1995).

*Yeast Genetics*. Co-taught with Ms. Diana Stordeur, Science Department Co-chair, Eaglecrest HS, Aurora, CO. (Fall 1994).

*Microcosmos*. (Fall1994, Summer 1995, Spring 1996).

*Stream Ecology*. Co-taught with Mr. Jorge Ortiz-Zayas, HBSEI Science Squad. (Spring 1994).

*DNA Electrophoresis*. Co-taught with Mr. Kirk Jensen, HBSEI Science Squad. (Spring 1994).

*Yeast - Beyond Bread and Beer*. Co-taught with Mr. Antonio Monterrosa, HBSEI Science Squad. (Spring 1994).

*The Botany and Art of Papermaking*. (Fall 1993, Spring 1995, Fall 1995).

*Forensic Botany*. (Fall 1993).

*Implementing Student Independent Research Projects in the Classroom*. (Summer 1993).

**Oral Presentations** (Refereed) (also seePublished abstracts of presentations at professional meetings)

### **International Science Education Conferences**

Association for Science Education, Guildford, United Kingdom. *Genetic Testing of Newborn Infants: A Bioethics Role-playing Activity* (January 2001).

Association for Science Education, Leeds, United Kingdom. *The Genetics of Deafness* (January 2000).

Association for Science Education, Leeds, United Kingdom. *Kitchen Electrophoresis: Colorful, Cheap and Nontoxic*. (January 2000).

**National Science Education Conferences**

National Science Teachers Association, Baltimore, MD. *Amazing Cells* (November 11, 2010).

National Science Teachers Association, Baltimore, MD. *Variation, Selection and Time* (November 11, 2010).

National Science Teachers Association, Baltimore, MD. *Epigenetics* (November 12, 2010).

National Science Teachers Association, Philadelphia, PA. *Beyond the Central Dogma: Epigenetics* (March 18, 2010).

National Science Teachers Association, Philadelphia, PA. *Amazing Cells* (March 19, 2010).

National Science Teachers Association, Philadelphia, PA. *Introduction to Heredity* (March 19, 2010).

National Science Teachers Association, New Orleans, LA. *Beyond the Central Dogma: Epigenetics* (March 21, 2009).

National Science Teachers Association, New Orleans, LA. *Amazing Cells* (March 21, 2009).

National Science Teachers Association, New Orleans, LA. *Introduction to Heredity* (March 19, 2009).

National Association of Biology Teachers, Memphis, TN. *Engaging Teachers in the Curriculum Development Process* (October 15, 2008).

National Association of Biology Teachers, Memphis TN. *Amazing Things Cells Can Do* (October 17, 2008).

National Association of Biology Teachers, Memphis TN. *The New Science of Addiction: Genetics and the Brain* (October 17, 2008).

Society for the Advancement of Chicanos and Native Americans in Science, Salt Lake City, UT. *Using Family History to Improve Your Health* (October 11, 2008).

National Science Teachers Association, Boston MA. *Family Health History: A Free Genomics Tool* (March 28, 2008).

National Science Teachers Association, Boston MA. *Introduction to Heredity* (March 28, 2008).

National Science Teachers Association, Boston MA. *Amazing Things Cells Can Do* (March 29, 2008).

National Association of Biology Teachers, Atlanta, GA. *Family Health History: Genetics Made Personal for All Students* (November 30, 2007).

National Science Teachers Association, St. Louis, MO. *The New Science of Addiction: Genetics and the Brain* (March 30, 2007).

National Science Teachers Association, St. Louis, MO. *Introduction to Heredity* (April, 2007).

National Biology Teachers Association, Albuquerque, NM*. The New Science of Addiction: Genetics and the Brain* (October 12, 2006).

National Science Teachers Association, Anaheim, CA. *Using Family History to Improve Your Health* (April 2006)

National Science Teachers Association, Anaheim, CA. *Biotechnology at Your Fingertips: Online Virtual Labs* (April 2006).

National Association of Biology Teachers, Milwaukee, WI. *Genetics and Addiction* (October 6, 2005).

Society for the Advancement of Chicanos and Native Americans in Science, Denver, CO. *Stem Cells in the Spotlight*, 2 workshops (October/November 2005).

National Science Teachers Association, Dallas TX. *Pharmacogenomics: Drugs Designed for You* (March 2005).

National Science Teachers Association, Dallas, TX. *Stem Cells in the Spotlight* (April 2005).

National Association of Biology Teachers, Chicago, IL. *Pharmacogenomics: Drugs Designed for You* (November 2004).

National Science Teachers Association, Atlanta, GA. *Online Genetics* (April 2004).

National Science Teachers Association, Atlanta, GA. *Gene Therapy: Molecular Bandage?* (April 2004).

National Science Teachers Association, Atlanta, GA. *Exploring Inherited Traits* (April 2004).

National Association of Biology Teachers, Portland, OR. *Gene Therapy: Molecular Bandage?* (October 2003).

National Association of Biology Teachers, Portland, OR. *Exploring Inherited Traits* (October 2003).

National Science Teachers Association, San Diego, CA. *Stem Cells in the Spotlight.* (March 2003).

National Science Teachers Association, San Diego, CA. *You’ve Come A Long Way, Dolly.* (March 2003).

National Science Teachers Association, San Diego, CA. *Bringing RNA Into View.* (March 2003).

National Association of Biology Teachers, Cincinnati, OH. *You’ve Come A Long Way, Dolly.* (November 2002).

National Association of Biology Teachers, Cincinnati, OH. *Bringing RNA Into View.* (November 2002).

National Association of Biology Teachers, Cincinnati, OH. *Stem Cells in the Spotlight.* (October 2002).

National Association of Biology Teachers, Montreal, Quebec. Canada, *Bringing RNA Into View.* With Steven Pasquale, Ph.D., Biological Sciences Curriculum Study. (November 2001).

National Association of Biology Teachers, Orlando, FL. *Genetic Testing of Newborn Infants: A Bioethics Role-playing Activity* (October 2000).

National Association of Biology Teachers, Fort Worth, TX. *Exploring Genetic Mutations and Disorders*. (October 1999).

Association for the Education of Teachers in Science, Austin, TX. *Kitchen Electrophoresis: An Inexpensive and Colorful Introduction to a Fundamental Molecular Biology Technique*. (January 1999).

National Association of Biology Teachers, Minneapolis, MN. *DNA: From Extraction to Electrophoresis.* (October 1997).

National Association of Biology Teachers, Minneapolis, MN. *Kitchen Electrophoresis: Colorful, Cheap and Nontoxic*. (October 1997).

National Association of Biology Teachers, Charlotte, NC. *Kitchen Electrophoresis: Colorful, Cheap and Nontoxic*. (October 1996).

National Association of Biology Teachers, Phoenix, AZ. *Kitchen Electrophoresis: Colorful, Cheap and Nontoxic*. (October 1995).

National Association of Biology Teachers, St. Louis, MO. *Genetics Society of America Initiatives for Promotion of Teacher-Scientist Collaborations.* Co-presented with Dr. Thomas R. Manney and Ms. Monta Manney, Kansas State University; Dr. Elaine Strass, Genetics Society of America; and Ms. Diana Stordeur, Eaglecrest HS, Aurora, CO. (November 1994).

**Regional Science Education Conferences**

National Science Teachers Association Area Conference, Baltimore, MD. *Beyond the Central Dogma: Epigenetics* (November 12, 2010).

National Science Teachers Association Area Conference, Baltimore, MD. *Variation, Selection and Time* (November 11, 2010).

National Science Teachers Association Area Conference, Baltimore, MD. *Amazing Cells* (November 11, 2010).

National Science Teachers Association Western Regional Conference, Denver, CO. *Family History: Exploring the Connection Between Heredity and Health* (November 10, 2007).

National Science Teachers Association Western Regional Conference, Denver, CO. *Exploring DNA and Heredity* (November 9, 2007).

National Science Teachers Association Western Regional Conference, Denver, CO. *Introduction to Heredity* (November 8, 2007).

National Science Teachers Association Western Regional Conference, Salt Lake City, UT*. Family History: Exploring the Connection Between Heredity and Health* (December 8, 2006).

National Science Teachers Association Western Regional Conference, Salt Lake City, UT. *Introduction to Heredity* (December 8, 2006).

National Science Teachers Association Western Regional Conference, Salt Lake City, UT. *Exploring DNA and Heredity* (December 7, 2006).

National Science Teachers Association Western Regional Conference, Salt Lake City, UT. *The New Science of Addiction: Genetics and the Brain* (December 7, 2006).

National Science Teachers Association Western Regional Conference, Salt Lake City, UT. *Blood Will Tell: Forensic Immunology* (October 2001).

National Science Teachers Association Western Regional Conference, Boise, ID. *Genetic Testing of Newborn Infants: A Bioethics Role-playing Activity* (October 2000).

National Science Teachers Association Western Regional Conference, Boise, ID. *Oodles of DNA - Quick and Easy DNA Extraction*. (October 2000).

National Science Teachers Association Western Regional Conference, Boise, ID. *Kitchen Electrophoresis: Colorful, Cheap and Nontoxic*. (October 2000).

National Science Teachers Association Western Regional Conference, Denver, CO. *DNA: From Extraction to Electrophoresis.* (November 1997).

National Science Teachers Association Western Regional Conference, Denver, CO. *Oodles of DNA - Quick and Easy DNA Extraction.* (November 1997).

National Science Teachers Association Western Regional Conference, Denver, CO. *Kitchen Electrophoresis: Colorful, Cheap and Nontoxic*. (November 1997).

**State Science Education Conferences**

Utah Science Teachers Association Midwinter Conference, Salt Lake City, UT. *The New Science of Addiction: Genetics and the Brain* (February 12, 2010).

Utah Science Teachers Association Midwinter Conference, Price, UT. *Introduction to Heredity* (February 15, 2008).

Utah Science Teachers Association Midwinter Conference, Price, UT. *Using Family History to Improve Your Health* (February 15, 2008).

Utah Science Teachers Association Midwinter Conference, Provo, UT. *Gene Therapy: Molecular Bandage?* (February 2004).

Utah Science Teachers Association Midwinter Conference, Provo, UT. *Modern Genetics Resources.* With Molly Malone, Education Specialist, Genetic Science Learning Center. (February 2004).

Utah Science Teachers Association Midwinter Conference, Provo, UT. *Exploring Inherited Traits.* With Molly Malone, Education Specialist, Genetic Science Learning Center. (February 2004).

Colorado Science Convention, Denver, CO. *Gene Therapy: Molecular Bandage?* (November 2003).

Colorado Science Convention, Denver, CO. *Cloning in Focus.* (November 2003).

Utah Coalition for Educational Technology, Sandy, UT. *Using Internet-based Genetics Curricula in the Classroom.* With Rebecca Raybould, Ed.D., Genetic Science Learning Center. (March 2002).

Utah Science Teachers Association Midwinter Conference, Provo, UT. *Genetic Testing of Newborn Infants: A Bioethics Role-playing Activity* (February 2001).

Utah Science Teachers Association Midwinter Conference, Provo, UT. *Oodles of DNA - Quick and Easy DNA Extraction*. (February 2001).

Colorado Science Convention, Denver, CO. *Genetic Testing of Newborn Infants: A Bioethics Role-playing Activity* (September 2000).

Utah Science Teachers Association Midwinter Conference, Ogden, UT. *The Genetics of Deafness* (February 2000).

Colorado Science Convention, Denver, CO, *Let Wisconsin Fast Plants™ Grow On You!* (November 1998).

Colorado Science Convention, Denver, CO. *Demonstrating Mendel’s Laws: Wisconsin Fast Plant™ Genetics*. (November 1998).

Colorado Science Convention, Denver, CO. *Oodles of DNA - Quick and Easy DNA Extraction*. (November 1996).

Colorado Science Convention, Denver, CO. *Kitchen Electrophoresis: Colorful, Cheap and Nontoxic*. (November 1996).

Colorado Science Convention, Denver, CO. *Microcosmos: Exploring the Micro-world*. (November 1994).

Colorado Science Convention, Denver, CO. *Haploid x Haploid = Diploid: Yeast Complementation Genetics*. With Ms. Diana Stordeur, Science Department Co-chair, Eaglecrest HS, Aurora, CO. (November 1994).

Colorado Science Convention, Denver, CO. *Exploring the Effects of Gibberellic Acid on Wisconsin Fast Plants*™. With Ms. Ronna Hargis, Science Department Chair, Manual HS, Denver, CO. (November 1994).

**Media Exposure**

The Daily Utah Chronicle. U genetics center receives $750,000 grant http://www.dailyutahchronicle.com/news/u-genetics-center-receives-750-000-grant-1.346621 (07/02/2007).

Deseret News article. U. genetics Web site is an Internet sensation (11/06/2009).

AAAS newsrelease. Genetics Web Sites Awarded the First Science Prize for Online Resources in Education http://www.aaas.org/news/releases/2010/0128spore (01/28/2010).

University of Utah press release. Genetically Superior Web Sites. http://unews.utah.edu/p/?r=012910-1 (01/29/2010)

New York Times. Genetics Web Sites Win Online Award. Article and video interview. http://www.nytimes.com/2010/01/29/science/29award-web.html?scp=3&sq=science%20prize&st=cse (01/29/2010).

NCRR Reporter, NCRR Grantees Recognized. http://www.ncrr.nih.gov/publications/ncrr\_reporter/spring-summer2010/pdfs/spring-summer2010.pdf (Spring/Summer 2010).

HHMI Bulletin, The Internet Age: Increasing Science Literacy One Webpage at a Time. http://www.hhmi.org/bulletin/feb2011/perspectives/stark\_literacy.html (02/2011).

**Contact Information**

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