November 2015

FRANCESCA STORICI
CURRICULUM VITAE

STORICI, FRANCESCA Associate Professor
School of Biology
Georgia Institute of Technology

Educational Background:

B.S./M.S.	Biological Sciences	1993	*Summa cum Laude*, University of Trieste, Italy
Ph.D.	Molecular Genetics	1998	International School for Advanced Studies, Trieste, Italy

Employment History:

- Visiting Fellow, National Institute of Environmental Health Sciences, (NIH, DHHS) 1999-2004

- Research Fellow, National Institute of Environmental Health Sciences, (NIH, DHHS) 2004-2007

- Research Assistant Professor, University of North Carolina at Chapel Hill, School of Pharmacy's Division of Molecular Pharmaceutics and the UNC Gene Therapy Center, Chapel Hill, North Carolina Apr. 2007-Jul. 2007

- Assistant Professor, School of Biology, Georgia Institute of Technology 2007-2013

- Associate Professor, School of Biology, Georgia Institute of Technology 2013-present

Current Fields of Interest:

DNA repair and recombination
Genome stability and mutagenesis
RNA-driven DNA repair and modifications
RNA transactions

DNA engineering and gene targeting

Teaching Experience:

Quarter, year	Course number	Course title	# of students
Fall, 2015	4590C	Research Project Lab	9
Spring, 2015	BIOL 4668/7668	Eukaryotic Molecular Genetics	12
Spring, 2015	BIOL 7964BIOL	Advances in Genetics	4
Fall, 2014	4590C	Research Project Lab	6
Spring, 2014	BIOL 4668/7668	Eukaryotic Molecular Genetics	29
Spring, 2014	BIOL 7964	Advances in Genetics	9
Fall, 2013	BIOL 4590C	Research Project Lab	13
Spring, 2013	BIOL 4668/7668	Eukaryotic Molecular Genetics	24
Spring, 2013	BIOL 7964	Advances in Genetics	12
Fall, 2012	BIOL 4590C	Research Project Lab	11
Spring, 2012	BIOL 4668/7668	Eukaryotic Molecular Genetics	38
Spring, 2012	BIOL 7964	Advances in Genetics	7
Fall, 2011	BIOL 4590C	Research Project Lab	11
Spring, 2011	BIOL 4668*/7668*	Eukaryotic Molecular Genetics	18
Fall, 2010	BIOL 2355 HP1/HP2	Honors Genetics Lab	40
Spring, 2010	BIOL 4668/7668	Eukaryotic Molecular Genetics	34
Spring, 2010	BIOL 7964	Advances in Genetics	11
Fall, 2009	BIOL 2355 HP1/HP2	Honors Genetics Lab	28
Spring, 2009	BIOL 4668/7668	Eukaryotic Molecular Genetics	34
Spring, 2009	BIOL 7964	Advances in Genetics	13
Fall, 2008	BIOL 2355 HP1/HP2	Honors Genetics Lab	34
Spring, 2008	BIOL 7964	Advances in Genetics	12

*These lectures have not been shared with other faculty. Others have been shared with another faculty member each semester (either Dr. Yury Chernoff or Kirill Lobachev, or both). Not listed above are undergraduate research, MS and doctoral thesis supervision, etc.

Patents:

- Storici, F., Resnick, M.A., and Lewis, K. L. A versatile system for in vivo site-directed mutagenesis with oligonucleotides. Filed July 26, 2002 (PCT International Application PCT/US02/23634).

- Storici, F., Hesselberth, J.R., and Koh, K. D. Method to Capture and Map Ribonucleotides Incorporated in DNA via Self-Ligation by *Arabidopsis thaliana* tRNA Ligase. GTRC-6522, 2013. Provisional patent # 61/899,372.

- Storici, F., Ruff, P. Aptamer-driven gene targeting. GTRC-6757, 2014. Provisional patent # 62/025,744.

Refereed Publications:

a) Already published

1. Storici, F., Oberto, J., and Bruschi, C. V. The CDC6 gene is required for centromeric, episomal, and 2-µm plasmid stability in the yeast Saccharomyces cerevisiae. *Plasmid*, 34: 184-197 (1995).
2. Storici, F., and Bruschi, C. V. Molecular engineering with the FRT sequences of the yeast 2 µm plasmid: [cir°] segregant enrichment by counterselection for 2 µm site-specific recombination. *Gene*, 195: 245-255 (1997).
3. Storici, F., Coglievina, M., and Bruschi, C. V. A 2-micron DNA-based marker recycling system for multiple gene disruption in the yeast Saccharomyces cerevisiae. *Yeast*, 15: 271-283 (1999).
4. Ljubijankic, G., Storici, F., Glisin, V., Bruschi, C.V. Synthesis and secretion of Providencia rettgeri and Escherichia coli heterodimeric penicillin amidases in Saccharomyces cerevisiae. *Gene*, 228: 225-232 (1999).
5. Storici, F., and Bruschi, C. V. Involvement of the Inverted Repeat of the yeast 2-micron DNA plasmid in site specific and RAD52-dependent homologous recombination. *Mol. Gen. Genet*., 263: 81-9 (2000).
6. Storici, F., Lewis L. K., and Resnick M. A. In vivo site-directed mutagenesis using oligonucleotides. *Nat. Biotech*., 19: 773-776 (2001).
7. Storici, F., Henneke, G., Ferrari, E., Gordenin, D.A., Hübscher, U., and Resnick, M. A. The flexible loop of human FEN1 endonuclease is required for flap cleavage during DNA replication and repair. *EMBO J*., 21: 5930-5942 (2002).
8. Inga, A., Storici, F., Darden, T. A., and Resnick, M. A. Differential transactivation by the p53 transcription factor is highly dependent on p53 level and promoter target sequence. *Mol. Cell. Biol*., 22: 8612-8625 (2002).
9. Storici, F., Durham, C. Gordenin, D. A., and Resnick, M. A. Chromosomal site-specific double-strand breaks are efficiently repaired by oligonucleotides. *Proc. Natl. acad. Sci. USA*, 100: 14994-14999 (2003).
10. Lewis, L. K., Storici, F., Van Komen, S., Calero, S., Sung, P., and Resnick, M. A. Role of the nuclease activity of Saccharomyces cerevisiae Mre11 in repair of DNA double-strand breaks in mitotic cells. *Genetics*, 166: 1701-1713 (2004).
11. *Tomso, D. J., Inga, A., Menendez, D., Pittman G. S., Campbell, M. R., Storici, F., Bell, D. A., and Resnick, M. A., Functionally distinct polymorphic sequences in the human genome that are targets for p53 transactivation. *Proc. Natl. Acad. Sci. USA*, 102: 6431-6436 (2005).
12. Storici, F., Snipe, R. J., Chan, G. K., Gordenin. D. A., and Resnick, M. A. Conservative repair of a chromosomal double-strand break by single-strand DNA through two steps of annealing. *Mol. Cell. Biol*., 26: 7645-7657 (2006).

13. Storici, F., Bebenek, K., Kunkel, T.A., Gordenin, D.A. and Resnick, M.A. RNA-templated DNA repair. *Nature*, 447: 338-341 (2007).
14. Storici, F. RNA-mediated DNA modifications and RNA-templated DNA repair. *Curr. Opin. Mol. Ther*. 10: 224-230 (2008).
15. Yang, Y., Sterling, J., Storici, F., Resnick, M.A., and Gordenin, D.A. Hypermutability of damaged single-strand DNA formed at double-strand breaks and uncapped telomeres. *PLoS Genetics*, 4, e1000264 (2008).
16. Hirsch, M., Storici, F., Li, C., Choi, V.W., and Samulski, R.J. AAV recombineering using single-strand oligonucleotides. *PLoS One*, 4, e7705 (2009).
17. Shen, Y., and Storici, F. Generation of RNA/DNA hybrids in genomic DNA by transformation using RNA-containing oligonucleotides. *J. Vis. Exp*. 45. http://www.jove.com/index/details.stp?id=2152, doi: 10.3791/2152 (2010).
18. Shen, Y., Nandi, P., Taylor, M. B., Bhadsavle, H. P., Stuckey, S., Weiss, B., and Storici, F. RNA-driven genetic changes in bacteria and in human cells. *Mutat. Res*., 717, 91-98 (2011).
19. Shen, Y., Koh, K. D., Weiss, B. and Storici, F. Mispaired rNMPs in DNA are mutagenic and are targets of mismatch repair and RNases H. *Nat. Struct. & Mol. Biol*. 19: 98-104 (2011).
20. Ruff, P., Pai, R. and Storici, F. A DNA aptamer for bovine serum albumin. *ISRN Mol. Biol*. Article ID 939083, 9 pages doi:10.5402/2012/939083 (2012).
21. Mukherjee, K. and Storici, F. A mechanism of gene amplification driven by small DNA fragments. *PLoS Genetics*, 8 (12), e1003119 (2012).
22. Ruff, P., Koh, K. D., Keskin, H, Pai, R. and Storici, F. Aptamer-guided gene targeting in yeast and human cells. *Nucleic Acids Res*. 42, No. 7 e61 doi: 10.1093/nar/gku101 (2014).
23. Katz, S. S., Gimble, F. S. and Storici, F. To nick or not to nick: comparison of I-SceI single- and double-strand break-induced recombination in yeast and human cells. *PLoS One*. 9 (2), e88840 (2014).
24. Chiu, H.-C.*, Koh, K. D.*, Evich, M., Lesiak, A., Germann, M., Bongiorno, A., Riedo, E. and Storici, F. RNA intrusions change DNA elastic properties and structure. *Equal contribution. *Nanoscale*. DOI: 10.1039/c4nr01794c (2014).
25. Keskin, H, Shen, Y., Huang, F., Patel, M., Yang, T, Ashley, K, Mazin, A. V. and Storici, F. Transcript RNA-templated DNA recombination and repair. *Nature*. 515: 436-439, doi:10.1038/nature13682 (2014).
26. Koh, K. D., Balachander, S., Hesselberth, J. R. and Storici, F. Ribose-seq: global mapping of ribonucleotides embedded in genomic DNA. *Nat. Methods*, 12: 251-257, doi:10.1038/nmeth.3259 (2015).
27. Keskin, H and Storici, F. Defects in RNase H2 stimulate DNA break repair by RNA reverse transcribed into cDNA. *MicroRNA*, 4(2):109-116 (2015).
28. Keskin, H., Meers, C. and Storici, F. Transcript RNA supports precise repair of its own DNA gene. *RNA Biol*.(2015). In press

b) Accepted for publication

c) Submitted for publication

d) In preparation

Book Chapters:

1. Inga, A., Storici, F., and Resnick, M. A. (2002). Functional analysis of the human tumor suppressor p53 and mutants using yeast. Review for: Yeast as a tool in cancer research. Kluwer Academic Publisher.

2. Storici, F., and Resnick, M. A. (2003). Delitto perfetto targeted mutagenesis in yeast using oligonucleotides. Review for: Genetic Engineering: Principles and Methods, New York, Kluwer Press. Vol. 25, p.189-207.

3. Storici, F., and Resnick, M. A. (2006). The delitto perfetto approach to in vivo site-directed mutagenesis and chromosome rearrangements with synthetic oligonucleotides in yeast. Methods Enzymol. 409: 329-345.

4. Stuckey, S., Mukherjee, K., and Storici, F. (2011). *In vivo* site-specific mutagenesis and gene collage using the *delitto perfetto* system in yeast *Saccharomyces cerevisiae*. *In*: "Methods in Molecular Biology", Edited by: H. Tsubouchi. Humana Press Inc., New York, NY; 745:173-191.

5. Shen, Y., and Storici, F. (2011). Detection of RNA-templated double-strand break repair in yeast. *In*: "Methods in Molecular Biology", Edited by H. Tsubouchi. Humana Press, New York, NY; 745:193-204.

6. Stuckey, S., and Storici, F. (2013) Gene Knockouts, *in vivo* Site-Directed Mutagenesis and Other Modifications Using the *Delitto Perfetto* System in *Saccharomyces cerevisiae*. *In* Jon Lorsch, editors: *Laboratory Methods in Enzymology*: Cell, Lipid and Carbohydrate, Vol 533, MIE, UK: Academic Press, 2013, pp. 103-132.

7. Katz, S., and Storici, F. (2014). Genetic modification stimulated by the induction of a site-specific break distant from the locus of correction in haploid and diploid yeast. *In*: "Methods in Molecular Biology", Edited by F. Storici. Humana Press, New York, NY; 1114:308-324.

8. Koh, K. D., Chiu, H.-C., Riedo, E. and Storici, F. (2015). Measuring the elasticity of ribonucleotide(s)-containing DNA molecules using AFM. *In*: "RNA Nanotechnology and Therapeutics: Methods and Protocols, Methods in Molecular Biology", P. Guo and F.

Haque (eds.), Springer Science+Business Media New York, vol. 1297, pp. 43-57; DOI 10.1007/978-1-4939-2562-9_3.

9. Ruff, P. and Storici, F. Genome editing by aptamer-guided gene targeting (AGT). *In:* "Genome Editing: The Next Step in Gene Therapy" Edited by T. Cathomen, M. Hirsch, and M. Porteus. American Society of Gene and Cell Therapy and Springer publishing. Accepted.

Books:

1. Storici, F., Editor. (2011). *DNA Repair – On the pathways to fixing DNA damage and errors.* InTech. Open Access Publisher, Rijeka Croatia and Vienna Austria, EU.

2. Storici, F., Editor. (2014) *Gene Correction: Methods and Protocols – Methods in Molecular Biology*; Humana Press, New York, NY; Vol. 1114.

Other publications:

1. Storici, F. (2013). RNA-mediated DNA repair. *International Innovation*, Nov. p 86-87.

Research Grants and Contracts:

Active:

- School of Biology 2015 Abell Fellow Grant Award from the Bennie H. and Nelson D. Abell Endowment Fund (Storici, PI) (January 1, 2015-December 31, 2015).

- Petite Interdisciplinary Research Seed Grant "Ribonucleotide incorporation into microbial DNA in the wild: profile, seasonal dynamics and role in adaptation to environmental perturbations" (Storici and Konstantinidis, PIs) (July 1, 2015-June 31, 2016).

- RNA-mediated DNA break repair (Storici, PI); NIH, NIGMS R01 R01 GM115927-01 (August 1, 2015-July 31, 2019)

Completed:

- Physical detection and mechanical properties of ribonucleotides embedded in DNA (Storici, PI); IBSI Systems Biology Pilot Grant Competition (IBSI-4)
(August 1, 2010-July 31, 2011)

- Development of a protein driven gene targeting technology (Storici, PI); NIH, NIBIB R21 EB9228
(April 1, 2009-March 31, 2012)

- Development of aptamers for gene targeting (Storici, PI); GT-FIRE Award
(March 14, 2011-June 30, 2012)

- Mechanisms of RNA/DNA Hybrid Stability and of Information Flow from RNA to DNA in Yeast Cells (Storici, PI); NSF (MCB-1021763)
(September 1, 2010-August 31, 2014)

- Distinguished Cancer Scholar Award "Genome-wide profiling and comparative analysis of ribonucleotide incorporation in prokaryotic and eukaryotic DNA" (Storici, PI); Georgia Cancer Coalition/ Georgia Research Alliance (July 1, 2007-June 30, 2015)

Meetings and Symposia:

Invited Speaker

- FASEB Summer Research Conference on Dynamic DNA Structures in Biology: "Homology-driven DNA break repair by transcript RNA" (to occur summer 2016).

- Gordon Research Conference on DNA Damage, Mutation and Cancer, Ventura, CA: "DNA self-repair by transcript RNA" (to occur spring 2016).

- Radiation Research Society meeting 2015, Florida: "DNA break repair by transcript RNA" (Sept. 2015).

- RNAi China 2015, Kunshan City, China: "DNA self-repair by non-coding transcript RNA" (11-14, 2015)

- ChinaNano2015, Beijing, China: "TBD" (Sept. 2015). Declined.

- FASEB Summer Research Conference on Genetic Recombination and Genome Rearrangement, Steamboat Springs, CO: "A mechanism of RNA-DNA recombination" (July 2015).

- Trends in RNA Biology, Minisymposium, Videoconference speaker: "The role of RNA in genome stability and modification" Binotech, Fatih University, Istanbul, Turkey (May 2015).

- Keystone Symposia Genomic Instability and DNA Repair X3/X4 2015, Whistler, British Columbia, Canada: "Double-strand break repair with transcript RNA" (March 2015).

- RNase H 2014, Warrenton, VA: "Defects in RNase H activity stimulate DNA break repair by cDNA and transcript RNA templates in yeast" (Sept. 2014).

- Suddath Symposium 2014 on DNA Repair and Human Disease, Atlanta, GA: "Relationship between RNA and DNA in Genome Stability" (Feb. 2014).

- 15th Annual Midwest Regional DNA Repair Symposium in Lexington, KY: "Transcript RNA-templated chromosomal double-strand break repair" (2013).

- 2013 International Conference of RNA Nanotechnology and Therapeutics in Lexington, KY: "DNA repair, modification and engineering by transcript RNA" (2013).

- RNase H 2012 Conference in Edinburgh, UK: "Chromosomal double-strand break repair with transcript RNA" (2012).

- Gordon Research Conference on Mutagenesis, Salve Regina University, RI: "RNA transcript-directed chromosomal double-strand break repair" (2012).

- School of Biology Retreat 2012, Helen, GA: "Role of RNA in genome stability" (2012).

- FASEB, Dynamic DNA structures in Biology, Saxtons River, VT: "RNA-mediated DNA modifications" (2012).

- Georgia Cancer Coalition, Macon, GA: "Resolution of RNA/DNA mispairs results from interplay between mismatch repair and RNase H functions" (2011).

- Keystone Symposia on DNA Replication and Recombination, Keystone, CO: "Resolution of RNA/DNA mispairs results from interplay between mismatch repair and RNase H functions" (2011).

- IBB Industry Partners Symposium, Georgia Institute of Technology, Atlanta, GA: "Establishing molecular tools for genetic manipulations from yeast to human cells" (2010).

- Georgia Cancer Coalition, Athens, GA: "RNA-driven DNA modifications from bacteria to mammalian cells" (2009).

- Retreat of the Laboratory of Molecular Genetics at NIEHS, Durham, NC: "RNA-driven DNA modifications from bacteria to mammalian cells" (2009).

- South East Regional Yeast Meeting, Gatlinburg, TN: "RNA-templated DNA repair" (2008).

- Keystone Symposia on Mechanisms of DNA Replication and Recombination, Santa Fe, NM: "RNA-templated DNA repair" (2008).

- Symposium on RNA Biology VII, University of North Carolina at Chapel Hill, NC: "RNA-templated DNA repair" (2007).

- Yeast Meeting Emory – Georgia Tech, Emory University, Atlanta, GA: "RNA-templated DNA break repair" (2007).

- Gordon Research Conference on Mutagenesis, Newport, RI: "RNA can serve as a template for double-strand break repair and DNA synthesis within the chromosome" (2006).

- American Society of Gene Therapy (ASGT) Meeting, Baltimore, MD; Late Braking Abstract presentation: "DNA repair and gene targeting to a chromosomal double-strand break with DNA and RNA oligonucleotides" (2006).

- 2nd ICGEB Alumni Meeting, Trieste, Italy: "DNA repair and gene targeting with synthetic oligonucleotides" (2005).

- South Eastern Regional Yeast Meeting (SERYM), Atlanta, GA: "Mechanism of double-strand break repair by single-strand oligonucleotides in yeast" (2005).

- Keystone Symposia on Mechanisms of DNA Replication and Recombination, Keystone CO: "Mechanism of double-strand break repair by single-strand oligonucleotides in yeast" (2005).

- DNA Repair Videoconference for the NIH DNA Repair Interest Group: "Addressing mechanisms of recombination and double strand break repair in yeast with targeted oligonucleotides and the delitto perfetto approach" (2004).

- The Salk Institute DNA Replication and Genome Integrity Meeting; La Jolla, CA: "Targeting of oligonucleotides to a double-strand break occurs via a single-strand annealing pathway of recombinational repair" (2004).

- Sixth Annual Midwest DNA Repair Symposium; Lexington, Kentucky: "Targeting of oligonucleotides to a double-strand break occurs via a single-strand annealing pathway of recombination" (2004).

- Yeast Genetics and Molecular Biology Meeting, University of Wisconsin, Madison: "Delitto perfetto in vivo mutagenesis in Saccharomyces cerevisiae" (2002).

- XXth International Conference on Yeast Genetics and Molecular Biology, Prague: "In vivo site-directed mutagenesis using oligonucleotides: a versatile system for functional genomics" (2001).

- Yeast Genetics and Molecular Biology Meeting, University of Maryland, MD: “A marker rescue system for multiple gene disruption in the yeast Saccharomyces cerevisiae” (1998).

- Joint Congress of SIMGBM 1994, Pescara, Italy: "The role of the CDC6 gene on plasmid stability in the yeast Saccharomyces cerevisiae" (1994).

Invited Seminars at Universities and Institutions:

- Southern Illinois University, School of Medicine, Carbondale, IL: “TBD”, to occur in March 2016.

- Instituto Gulbenkian de Ciência, Oeiras, Portugal: “A mechanism of DNA double-strand break repair by transcript RNA”, to occur in December 2015.

- Drexel University, Philadelphia, PA: “RNA transcript-templated repair of DNA double-strand breaks”, to occur in December 2015.

- Arabia Mountain High School, Lithonia, GA: “DNA Damage and Repair” (November 2015).

- Department of Genetics and Biochemistry at Clemson University in Clemson, SC: “Homology-driven DNA double-strand break repair by transcript RNA” (April 2015).

- Université Laval, Quebec City, Quebec, Canada: “Mechanism of DNA double-strand break repair by transcript RNA via homologous recombination” (February 2015).

- University of Milano, Italy: “A mechanism of DNA double-strand break repair mediated by transcript RNA” (December 2014).

- Purdue University, West Lafayette, IN: “Transcript RNA is recombinogenic and promotes genome integrity” (October 2014).

- University of Udine, Udine, Italy “A mechanism how RNA impacts genomic DNA stability” (2013).

- University of Nova Gorica, Nova Gorica, Slovenia “DNA damage and repair mediated by RNA” (2012).

- Georgia Institute of Technology, Blended Research @ the Library, Manipulating Cells, Innovative Research at Georgia Tech, Atlanta, GA “Engineering the genome with DNA and RNA” (2012).

- Georgia Institute of Technology, IBB Breakfast Club, Atlanta, GA “Mechanisms of RNA-driven DNA modification and repair” (2012).

- Institute of Molecular Cancer Research, University of Zurich, Zurich, Switzerland: "Mechanisms of information flow from RNA to DNA" (2011)

- Cancer Genetics and Epigenetics, Winship Cancer Institute of Emory University, Atlanta, GA: Resolution of RNA/DNA mispairs results from interplay between mismatch repair and RNase H functions" (2010).

- International Aicardi-Goutieres Syndrome Association (IAGSA), 'C. Mondino Institute of Neurology' Foundation, Pavia, Italy: "Flow of genetic information from RNA to DNA, from bacteria to human cells" (2009).

- Integrative BioSystems Institute & The Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University, Atlanta, GA: "Flow of genetic information from RNA to DNA, from bacteria to human cells" (2009).

- Department of Biochemistry, Emory University, Atlanta, GA: "RNA-driven DNA modifications from bacteria to human cells" (2009).

- Eppley Institute for Research in Cancer, Nebraska Medical Center, Omaha, NE: "RNA-driven DNA modifications from bacteria to mammalian cells" (2009).

- Centre for Integrative Biology, CIBIO, University of Trento, Italy: "RNA-driven DNA modifications from bacteria to mammalian cells" (2008).

- Scuola Normale Superiore di Pisa, Area della Ricerca CNR di Pisa, Italy: "DNA break repair with DNA or RNA" (2007).

- National Institute for Cancer Research, IST, Genoa, Italy: "DNA break repair with DNA or RNA" (2007).

- Cancer Genetics and Genomic Instability (CGGI) Program, Winship Cancer Center, Emory University. Atlanta, GA: "DNA break repair and gene targeting" (2007).

- Cystic Fibrosis Center University of North Carolina, Chapel Hill, NC: "Healing chromosomal breaks and mutations with DNA and RNA oligonucleotides" (2006).

- Istituto Tumori Toscano, Firenze, Italy: "DNA repair and gene targeting with synthetic oligonucleotides" (2005).

Professional service

- Invited Guest at the American Medical Student Association (AMSA) Networking Night at Georgia Tech (to occur in November 2015).

- Invited Guest at the American Medical Student Association (AMSA) Networking Night at Georgia Tech (2014).

- Panel, National Institute of Environmental and Health Sciences (NIEHS, NIH) to review NIEHS received R13/U13 conference grant applications (2014).

- Co-Organizer of Conference and Chair of Platform Sessions: Suddath Symposium "DNA Repair and Human Disease", February 2014.

- Judge at the Georgia Tech Research & Innovation Conference (GTRIC) Poster Competition in 2013.

- Panel Member National Science Foundation (NSF): Mechanisms of inheritance (August, 2012).

- Chair of platform session FASEB, Dynamic DNA structures in Biology, Saxtons River, VT: "Hotspots for Genetic Instability" (June, 2012).

- Co-organizer of Conference: Southeastern Regional Yeast Meeting (SERYM), Emory University, Atlanta, GA (February 24-26, 2012).

- Chair of platform session Southeastern Regional Yeast Meeting (SERYM), Emory University, Atlanta, GA: "The RNA Lifecycle" (February 24-26, 2012).

- Editorial Board of Journal of Molecular Biochemistry (since 2012).

- Editorial Board of ISRN Molecular Biology (since 2011).

- Panel Member National Science Foundation (NSF): Mechanisms of inheritance (2011).

- Chair of Workshop: DNA Damage Response Mechanisms; Keystone Symposia on DNA Replication and Recombination, Keystone, CO: (2011).

- Grant Reviewer for proposals from the Georgia Cancer Coalition (GCC) (2009 and 2010), the National Science Foundation (NSF) Career Awards (2010; 2013), the Blanc SVSE 8 2012 program of the French National Research Agency (ANR) (2012), UMC Groningen, The Netherlands (2013), The National Science Centre of Poland (2014).

- Peer review: reviewer of book chapters (Modern Molecular Biology: Genomes to Proteomes) and manuscripts for multiple journals in the field of molecular biology and genetics, e.g.: *Nature, Science, Nature Methods, Nature Structural and Molecular Biology, PLoS Genetics, PLoS One, FEBS Journal, FEMS Journal, Molecular and Cellular Biology, Gene Therapy, EMBO Journal, Nucleic Acid Research, DNA Repair, ACS Synthetic Biology, Yeast*.

Committees - Georgia Tech:

2008 – 2014 Member, Georgia Tech Graduate Curriculum Committee
2009 - present Member, School of Biology Space Committee
2009, 2014 Member, School of Biology Christmas Party Committee
2010 - 2011 Member, School of Biology Design Committee for the new Biology building
2011- 2014 Member, School of Biology Graduate Committee
2012- present Member, Georgia Tech Radiation Safety Committee
2015-present Member, Endowed Chair Search Committee, Biology, Georgia Tech

Honors, Awards, and Recognitions:

2015 - 2015 Sigma Xi Research Award of the Georgia Institute of Technology Chapter for Best Faculty Paper.

2014 - School of Biology 2015 Abell Fellow Grant Award from the Bennie H. and Nelson D. Abell Endowment Fund.

2014 - Certificate "Thanks for being a great teacher" Thank a teacher program of Georgia Institute of Technology, Atlanta, GA.

2013 - Certificate "Thanks for being a great teacher" Thank a teacher program of Georgia Institute of Technology, Atlanta, GA (received 2 independent certificates).

2011 - Georgia Tech Fund for Innovation in Research and Education, GT-FIRE Award.

2010 - Certificate "Thanks for being a great teacher" Thank a teacher program of Georgia Institute of Technology, Atlanta, GA.

2009 - Coalition Membership in the Cancer Genetics & Epigenetics Program of the Winship Cancer Institute at Grady Memorial Hospital, Atlanta, GA.

2008 - Paper of the Year Award at the National Institute of Environmental Health Sciences for 'RNA-templated DNA repair', Storici et al., Nature 2007.

2007- Distinguished Cancer Scholar Award, Georgia Cancer Coalition, Georgia Research Alliance.

2005 - Scholarship award from the organizers of the Keystone Symposia on Mechanisms of DNA Replication and Recombination, Keystone CO, 2005.

2004 - Fellowship award from the organizers of The Salk Institute DNA Replication and Genome Integrity Meeting 2004; La Jolla, CA.

2002 - Fellowship award from the organizers of the Yeast Genetics and Molecular Biology Meeting at the University of Wisconsin, Madison.

2001 and 2003 - Fellows Award for Research Excellence (FARE) from the National Institute of Health (NIH).

1994 - Award from the Italian Society of General Microbiology and Microbial Biotechnology (SIMGBM).

1993 - Final-year undergraduate studying award from A. Marzullo foundation for a thesis in molecular and cellular biology.

Membership in Professional and Honor Societies:

2015 – present Sigma Xi Society
2009 – present Center for Nanobiology of the Macromolecular Assembly Diseases (NanoMAD)
2009 – present Winship Cancer Institute at Emory University
2008 – present RNA Society
2007 – present Georgia Cancer Coalition, Georgia Research Alliance
2006 – present Genetic Society of America
2003 – present American Association for the Advancement of Science

Graduate, Undergraduate and High School Students Supervised:

Graduate Students Supervised:

2007-2011	Ying Shen (PhD, graduated)	Georgia Tech, Biology
2008-2013	Patrick Ruff (PhD, graduated)	Georgia Tech, Biology
2008-2013	Samantha Stuckey (PhD, graduated)	Georgia Tech, Biology
2008 (fall)	Yu Zhang	Georgia Tech, Biology
2009-(fall)	Po-Yi Ho	Georgia Tech, Biology
2009-2015	Kyung Duk Koh (PhD, graduated)	Georgia Tech, Biology
2010-2011	Sun Young Goo	Georgia Tech, Biology
2011-present	Havva Keskin	Georgia Tech, Biology
2012-2013	Zhiqiang Lin	Georgia Tech, Biology
2012-2014	Taehwan Yang (master, graduated)	Georgia Tech, Biology
2012, 2013-present	Sathya Balachander	Georgia Tech, Biology
2013-(fall)	Yuehui Zhao	Georgia Tech, Biology
2014-2015	Gayathri Pratap Kurup (master, grad.)	Georgia Tech, Biology
2014-present	Chance Meers	Georgia Tech, Biology

2014	Nanda Aung	Georgia Tech, Biology
2015 (Feb-Aug.)	Matilde Clarissa Malfatti	University of Udine (Italy)
2015-present	Alli Gombolay	Georgia Tech, Biology
2015-present	Young Kyu Jeon	Georgia Tech, Biology

Current graduate students on whose thesis committee I serve:

Chenyi Pan	Ph.D. student (Georgia Tech, Biology, 2009-present)
Burcu Guven	Ph.D. student (Georgia Tech, Biology, 2011-present)
Becca Howie	Ph.D. student (Georgia Tech, Biology, 2011-present)
Pavithra Chandramowlishwaran	Ph.D. student (Georgia Tech, Biology, 2011-present)
Ziwei Sheng	Ph.D. student (Georgia Tech, Biology, 2011-present)
Watson Ryan Atlee	Ph.D. student (Georgia Tech, Chemistry, 2012-present)
Eli Fine	Ph.D. student (Georgia Tech, BME, 2013-present)
Kathryn Lanier	Ph.D. student (Georgia Tech, Chemistry, 2013-present)
Saira Dar	Ph.D. student (Georgia Tech, Chemistry, 2013-present)
Zhiqiang Lin	Ph.D. student (Georgia Tech, Biology, 2013-present)
Zachery J Deckner,	Ph.D. student (Georgia Tech, Biology, 2014-present)
Amy Ehrenworth	Ph.D. student (Georgia Tech, Chemistry, 2013-present)
Jordan Gulli	Ph.D. student (Georgia Tech, Biology, 2015-present)
Jin Xu	Ph.D. student (Georgia Tech, Biology, 2015-present)
Zhenyu Zhou	Ph.D. student (Georgia Tech, Chemistry, 2015-present)
Matilde Clarissa Malfatti	Ph.D. student (University of Udine, Italy, 2015-present)

Past graduate students on whose thesis committee I served:

Hyun-min Kim	Ph.D. student (Georgia Tech, Biology, 2009-graduation 2009)
Sabelo Khuzwayo	Ms. student (Georgia Tech, Biology, 2010-graduation 2011)
Gaurav Arora	Ph.D. student (Georgia Tech, Biology, 2008-graduation 2011)
Todd Pan	Master student (Georgia Tech, Biology, 2010-graduation 2011)
He Gong	Ph.D. student (Georgia Tech, Biology, 2007-graduation 2011)
Meng Sun	Ph.D. student (Georgia Tech, Biology, graduation 2011)
Gaurav Arora	Ph.D. student (Georgia Tech, Biology, 2008- graduation 2011)
Elena Antonova	Ph.D. student (Georgia Tech, Biology, 2009-graduation 2013)
Yunzhe Zhang	Ph.D. student (Georgia Tech, Biology, 2009-graduation 2013)
Magdalena Medrzycki	Ph.D. student (Georgia Tech, Biology, 2008-graduation 2013)
Kaixiang Cao	Ph.D. student (Georgia Tech, Biology, 2008-graduation 2014)
Katy Bruce	Ph.D. student (Georgia Tech, Biology, 2009- graduation 2014)
Natalie Saini	Ph.D. student (Georgia Tech, Biology, 2009- graduation 2014)
Hiba Hamdan	Ms. student (Georgia Tech, Biology, 2013- graduation 2014)
Sun Young Goo	Ph.D. student (Georgia Tech, Biology, 2011-2014)
Eli Fine	Ph.D. student (Georgia Tech, BME, 2013- graduation 2015)

Undergraduate Students Supervised:

Laura Weston	(University of North Carolina)	2000-2001
Mark King	(Duke University)	2001
Susannah Grant,	(Meredith College)	2002
Janet Liu	(North Carolina State University)	2001-2002
Christopher Durham	(University of North Carolina)	2002-2003
Ryan Milewski	(North Carolina State University)	2004
Godwin Chan	(University of North Carolina)	2005-2006 for Honor Thesis
Pavan Nandi	(Georgia Tech, Biology)	2008-2009
Lauren Rosenblatt	(Georgia Tech, Biology)	2008
Pooja Manjunatha	(Georgia Tech, Biology)	2008
Keerthi Kesavarap	(Georgia Tech, Biology)	2008
Yoshio Uemura	(Georgia Tech, Biology)	2008-2010
Hershel Bhadsavle	(Georgia Tech, Biology)	2009-2010
Crystal Ruper	(Georgia Tech, Biology)	2009-2010
Panaporn Aphivantrakul	(Georgia Tech, Biology)	2009-2010
Katie Ashley	(Georgia Tech, Biology)	2009-2011
Matthew Taylor	(Georgia Tech, Biology)	2009-2011
Whittney Mays	(Georgia State University)	2010
Taylor Holbrook	(Georgia Tech, Biology)	2010, 2011
Nancy Thakkar	(Georgia Tech, Biology)	2010
Megan Liu	(Georgia Tech, Biology)	2010
Nima Yazdanpanah	(Georgia Tech, Biology)	2011
Marika Shahid	(Georgia Tech, Biology)	2011
Anna Sulimirski	(Georgia Tech, Biology)	2011-2012
Courtney Price	(Georgia Tech, Biology)	2011-2012
Alli Gombolay	(Georgia Tech, Biology)	2011-2013
Parmi Shah	(Georgia Tech, Biology)	2011-2012
Lahari Shetty	(Georgia Tech, Biology)	2011-2013
Christine Lee	(Georgia Tech, Biology)	2012-2013
Mikhael Ravula	(Georgia Tech, Biology)	2012
Valerie Mock	(Georgia Tech, Biology)	2012-2013
Doyeon Kim	(Georgia Tech, Biology)	2012-2013
Katrina Lancaster	(Southern Polytechnic State University)	2013
Diana Tran	(Georgia Tech, Biology)	2013
Jake Raper	(Georgia Tech, Biology)	2013
Khadija Haq	(Georgia Tech, Biology)	2013
Emma Graf	(Georgia Tech, Biology)	2013-2014
Diana Sas	(Georgia Tech, Biology)	2013-2014
Chance Meers	(Georgia Tech, Biology)	2013-2014
Courtney Hegener	(Georgia Tech, Biology)	2014
Yael Toporek	(Georgia Tech, Biology)	2014

Soo Hyun Chun	(Georgia Tech, Biology)	2014
Amreen Fazal	(Georgia Tech, Biology)	2014
Sevde Nur Biltekin	(Istanbul University)	2014
Elif Sertel	(Istanbul University)	2014
Alexandra Skulskaya	(Georgia Tech, Biology)	2014-present
Britney Lewis	(Georgia Tech, Biology)	2015
Lauren Traster	(Georgia Tech, Biology)	2015
Marina Ali	(Georgia Tech, Biology)	2015
Swathi Rammohan	(Georgia Tech, Biology)	2015
Mary Ann Thaliath	(Georgia Tech, Biology)	2015-present
Yonkyu Jang	(Georgia Tech, Biology)	2015-present
Katherine Gordon	(Georgia Tech, Biology)	2015-present
Alexander Carusi	(Georgia Tech, Biology)	2015-present

High School Students Supervised:

Palani Eswaran	2008-2009
Benjamin Murray	2009
Melanie Parham	2010
Omer Oncul	2013, 2014, 2015
Hannah Kemelmakher	2014
Cydney Wang	2014
Roopsha Bandopadhyay	2015-present
Nolan Hubbard	2015-present

Postdoctoral Fellows Supervised:

Kuntal Mukherjee	(Georgia Tech, Biology)	2008-2012

Research Scientist Supervised:

Rekha Pai	(Georgia Tech, Biology)	2009-2013