November 2014

FRANCESCA STORICI CURRICULUM VITAE

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

Educational Background:

| B.S./M.S. | Biological Sciences | 1993 | <i>Summa cum Laude</i> , 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 | er, 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

| Quarter, year | Course number | Course title | # of students |
|---------------|-------------------|-------------------------------|---------------|
| Fall, 2014 | BIOL 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 |

Teaching Experience:

*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).

Refereed Publications:

a) Already published

- 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).
- 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).
- *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).
- 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.* 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).
- 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).
 - b) Accepted for publication
 - c) Submitted for publication

1. Koh, K. D., Balachander, S., Hesselberth, J. R. and Storici, F. Global mapping of ribonucleotides embedded in genomic DNA. In review.

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 sitedirected mutagenesis and chromosome rearrangements with synthetic oligonucleotides in yeast. Methods Enzymol. 409: 329-345.
- 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.
- 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.
- 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.
- 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. Ruff, P. and Storici, F. A novel approach using aptamers to stimulate gene targeting. *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.
- 9. Koh, K. D., Chiu, H.-C., Riedo, E. and Storici, F. Measuring the elasticity of ribonucleotide(s)-containing DNA molecules using AFM. *In*: "Methods in Molecular Biology", Edited by P. Guo. Humana Press, New York, NY. 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:

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

Research Grants and Contracts:

Active:

- Distinguished Cancer Scholar Award (Storici, PI); Georgia Cancer Coalition (July 1, 2007-June 30, 2015)

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, R21 (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 (September 1, 2010-August 31, 2014)

Meetings and Symposia:

Invited Speaker

- FASEB Summer Research Conference on Dynamic DNA Structures in Biology: "TBD" (to occur summer 2016).

- Radiation Research Society meeting 2015, Florida: "DNA break repair by transcript RNA" (to occur Sept. 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 transcriptdirected 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 sitedirected 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:

- Université Laval, Quebec City, Quebec, Canada: "TBD", to occur in February 2015.

- University of Milano, Italy: "A mechanism of DNA double-strand break repair mediated by transcript RNA", to occur in 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 RNAdriven 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 (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 |

Honors, Awards, and Recognitions:

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.

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:

2009 - present Center for Nanobiology of the Macromolecular Assembly Diseases (NanoMAD)

- 2009 present Winship Cancer Institute
- 2008 present RNA Society
- 2007 present Georgia Cancer Coalition
- 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-present | Kyung Duk Koh | 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-present | Gayathri Pratap Kurup | Georgia Tech, Biology |
| 2014-present | Chance Meers | Georgia Tech, Biology |
| 2014-present | Nanda Aung | 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 Chandramowlishwan | ran Ph.D. student (Georgia Tech, Biology, 2011-present) |
| Sun Young Goo | 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) |
| Hiba Hamdan | Master student (Georgia Tech, Biology, 2013-present) |
| Kathryn Lanier | Ph.D. student (Georgia Tech, Chemistry, 2013-present) |
| Saira Dar | Ph.D. student (Georgia Tech, Chemistry, 2013-present) |

Past graduate students on whose thesis committee I served:

| Hyun-min Kim | Ph.D. student (Georgia Tech, Biology, 2009-graduation 2009) |
|-----------------|--|
| Sabelo Khuzwayo | Master 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 | i 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) |

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 Aphivantral | kul (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 Univers | ity) 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-present |
| 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 |

<u>High School Students Supervised:</u>

| Palani Eswaran | 2008-2009 |
|--------------------|------------|
| Benjamin Murray | 2009 |
| Melanie Parham | 2010 |
| Omer Oncul | 2013, 2014 |
| Hannah Kemelmakher | 2014 |
| Cydney Wang | 2014 |

Postdoctoral Fellows Supervised:

| Kuntal Mukherjee | (Georgia Tech, Biology) | 2008-2012 |
|--------------------------------|-------------------------|-----------|
| Research Scientist Supervised: | | |
| Rekha Pai | (Georgia Tech, Biology) | 2009-2013 |