

THE UNIVERSITY OF TEXAS AT AUSTIN
Cockrell School of Engineering
Standard Resume

FULL NAME: Mia K. Markey **TITLE:** Professor

DEPARTMENT: Biomedical Engineering

EDUCATION:

Illinois Mathematics and Science Academy	N/A	diploma	1994
Boston University	molecular biology	N/A	1994-1995
Carnegie Mellon	computational biology	BS	1998
Duke	biomedical engineering	PhD	2002
Duke	bioinformatics	certificate	2002

PROFESSIONAL REGISTRATION: N/A

CURRENT AND PREVIOUS ACADEMIC POSITIONS:

The University of Texas at Austin	Asst. Professor	2002-2008
The University of Texas at Austin	Assoc. Professor	2008-2014
The University of Texas at Austin	Professor	2014-present
The University of Texas at Austin	Core Faculty, Center for Women's and Gender Studies	2015-present
The University of Texas at Austin	Professor (courtesy), Oncology, Dell Medical School	2018-present
The University of Texas MD Anderson Cancer Center	Adjunct Associate Professor, Imaging Physics	2010-2014
The University of Texas MD Anderson Cancer Center	Adjunct Professor, Imaging Physics	2014-present

OTHER PROFESSIONAL EXPERIENCE:

The University of Texas at Austin	Member, Institute of Cellular and Molecular Biology	2003-present
The University of Texas at Austin	Member, Graduate Studies Committee, Cellular and Molecular Biology	2003-present
The University of Texas at Austin	Track Representative, Bioinformatics and Computational Biology Track, Cellular and Molecular Biology	2006-2008
The University of Texas at Austin	Co-Director, Graduate Portfolio Program in Imaging Science	2007-present
The University of Texas at Austin	Associated Faculty, Department of Statistics & Data Sciences (formerly the Division of Statistics and Scientific Computation)	2008-present
The University of Texas at Austin	Minority Liaison Officer (Graduate Program), Biomedical Engineering	2008-present
The University of Texas at Austin	Chair, Biomedical Engineering Graduate Studies Committee	2009-2010

The University of Texas at Austin	Member, Graduate Studies Committee, Electrical and Computer Engineering	2009-present
The University of Texas at Austin	Member, Center for Identity	2011-present
The University of Texas at Austin	Engineering Foundation Endowed Faculty Fellow in Engineering	2012-present
The University of Texas at Austin	Member, Center for Perceptual Systems	2013-present
The University of Texas at Austin	Member, Graduate Studies Committee, STEM Education	2015-present
The University of Texas at Austin	Full Member, LIVESTRONG Cancer Institutes, Dell Medical School	2017-present

MAJOR CONSULTING PROJECTS:

N/A

HONORS AND AWARDS:

- 1998-2001 Graduate fellowship, Whitaker Foundation Special Opportunities Award, Biomedical Engineering, Duke University
- 2001-2002 Dissertation Research Award, Susan G. Komen Breast Cancer Foundation
- 2001-2002 Predoctoral Traineeship, United States Army Medical Research and Materiel Command (Breast Cancer Research Program)
- 2004-2008 NIH Clinical Research Loan Repayment Program recipient
- 2006 UT Austin Student Engineering Council BME Faculty Appreciation Award
- 2006 UT Austin Graduate Engineering Council Faculty Appreciation Award
- 2006 American Society for Engineering Education, Gulf-Southwest Section Outstanding Teaching Award
- 2006 American Medical Informatics Association (AMIA) New Investigator Award
- 2007 J.A. Halter Award in Bioinformatics and Computational Biology, Houston Society for Engineering in Medicine and Biology
- 2007 Silver Award for Teaching with Technology, Innovative Instructional Technologies Award Program, Office of the Provost & Center for Instructional Technologies, UT Austin
- 2008 Alumni Distinguished Leadership Award, Illinois Mathematics and Science Academy
- 2009 3rd place best paper, New Engineering Educators Division, American Society for Engineering Education Annual Conf. & Expo.
- 2009 Senior Member, IEEE
- 2009 American Cancer Society Research Scholar
- 2011 Senior Member, SPIE
- 2013 Society for Women's Health Research Medtronic Prize for Scientific Contributions to Women's Health
- 2014 Fellow, American Association for the Advancement of Science (AAAS)
- 2014 Best Regional Paper: North America, Plastic and Reconstructive Surgery Global Open, American Society of Plastic Surgeons
- 2014-2015 Big XII Faculty Fellowship
- 2014-2015 Oak Ridge Associated Universities (ORAU) Travel Grant
- 2015 Distinguished Young Alumna, Pratt School of Engineering, Duke
- 2015 Sharon Keillor Award for Women in Engineering, American Society for Engineering Education (ASEE)
- 2016 Women in Engineering Program Advocate Award, UT Austin
- 2016 Fellow, American Institute for Medical and Biological Engineering (AIMBE)

MEMBERSHIPS IN PROFESSIONAL AND HONORARY SOCIETIES:

American Association for the Advancement of Science (Fellow, AAAS)
 American Association of Physicists in Medicine (AAPM)
 American Institute for Medical and Biological Engineering (Fellow, AIMBE)

American Medical Informatics Association (AMIA)
 American Society for Engineering Education (ASEE)
 Biomedical Engineering Society (BMES)
 IEEE Engineering in Medicine and Biology Society (EMBS) (Senior Member, IEEE)
 International Society for Optical Engineering (SPIE) (Senior Member, SPIE)
 Medical Image Perception Society (MIPS)

UNIVERSITY COMMITTEE ASSIGNMENTS:

<i>Departmental-</i>	Vick Center Advisory Committee, School of Undergraduate Studies (UT Austin)	2017-2018
	NIH BD2K Trainee selection committee, Department of Statistics & Data Sciences (UT Austin)	2016-2017
	Integrity Committee, Biomedical Engineering (UT Austin)	2015-2016
	Member, Faculty Search Committee, Biomedical Engineering (UT Austin)	2016-2017, 2017-2018, 2018-2019
	Chair, Faculty Search Committee, Biomedical Engineering (UT Austin)	2014-2015, 2013-2014, 2012-2013
	Member, Seminar Committee, Biomedical Engineering (UT Austin)	2011-2014, 2016-present
	Member, Qualifying Exam Coordinating Committee, Biomedical Engineering (UT Austin)	2010, 2011, 2012
	Member, Faculty Search Committee, Electrical & Computer Engineering (UT Austin)	2011-2012
	Member, Faculty Steering Committee for the Certificate in Scientific Computation and Data Sciences, Department of Statistics & Data Sciences (UT Austin)	2009-present
	Track Representative of Bioinformatics and Computational Biology Track, Graduate Studies Committee	2006-2008
	Cell and Molecular Biology (UT Austin)	
	Member, Executive Committee, Graduate Studies Committee, Cell and Molecular Biology (UT Austin)	2006-2008
	Member, Executive Committee, Graduate Studies Committee, Biomedical Engineering (UT Austin)	2004-present
	Member, Undergraduate Curriculum Committee, Biomedical Engineering (UT Austin)	2004-2011
	Member, U.S.A Graduate Admissions Committee, Biomedical Engineering (UT Austin)	2002-2008
	Member, Graduate Curriculum Committee, Biomedical Engineering (UT Austin)	2002-2004
<i>School-</i>	Member, Information Technology Committee	2002-2007
	Cockrell School of Engineering (UT Austin)	
	Member, Equal Opportunity in Engineering Committee	2007-2009
	Cockrell School of Engineering (UT Austin)	

	Chair, Women in Engineering Committee Cockrell School of Engineering (UT Austin)	2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017 2014
<i>University-</i>	EERC Interdisciplinary Research Committee (UT Austin)	2014
	Member, Information Technology Committee (C13)	2006-2008
	Standing Committee of the General Faculty (UT Austin)	
	Member, Data Storage Steering Committee (UT Austin)	2010-2012
	Member, Quantitative Reasoning Flag Committee (UT Austin)	2010-2012
	Member, Research & Educational Technology Committee (UT Austin)	2011-2013
	Chair, Quantitative Reasoning Flag Committee (UT Austin)	2012-2014
	Member, Campus Conversation Faculty Working Group: committee on principles of degree plans	2014-2015
	Member, C-5 Faculty Building Advisory Committee	2014-2019
	Member, Research Management System (RMS) Replacement Committee	2016-2017

PROFESSIONAL SOCIETY/GOVERNMENT SERVICE AND TECHNICAL COMMITTEES:

Grant Proposal reviews (government agencies)

- National Institutes of Health
 - X-50 EB03-007 (July 2003)
 - SBIB-J (90) S (November 2004)
 - Biomedical Imaging Technology Study Section (temporary member; June 2004)
 - ZCA1 SRRB-9 (M1) (March 2004)
 - ZRG1 SBMI-R-12 (June 2005)
 - Biomedical Imaging Technology Study Section (temporary member; June 2005)
 - Biomedical Imaging Technology Study Section (temporary member; June 2009)
 - ZRG1 SBIB-U 55 R (June 2010)
 - SBIB-J(80) (February 2011)
 - ZRG1 BST-H (40) P P41 (site visit; November 2014)
 - ZRG1 SBIB-R (90) S (June 2015)
 - Charter Member, Biomedical Imaging Technology (BMIT-B) Study Section, 2011-2015
 - CSR Pilot Study (August 2015)
 - Biomedical Computing and Health Informatics (BCHI) Study Section (temporary member; February 2017)
 - ZRG1 BST-T (02) M (November 2017)
 - ZRG1 IMST-K(14)B (November 2017)
 - CSR Anonymization Study (SBIB) (February 2019)
- National Science Foundation
 - IGERT pre-proposals (June 2006)
 - IGERT proposals (December 2006)
 - IGERT pre-proposals (June 2008)

Elected Positions in Professional Societies

- Genomics Working Group, American Medical Informatics Association: Chair-Elect (2004), Chair (2005-2006), Past-Chair (2007)
- Biomedical Imaging Informatics Working Group, American Medical Informatics Association: Member of Advisory Board (2006-2017)
- Chair-Elect, Gulf-Southwest Section, American Society for Engineering Education (ASEE) (June 2017-May 2018)

- Chair, Gulf-Southwest Section, American Society for Engineering Education (ASEE) (June 2018-May 2019)
- Past Chair, Gulf-Southwest Section, American Society for Engineering Education (ASEE) (June 2019-May 2020)

Invited Positions in Professional Societies

- subcommittee on Computer-assisted detection and diagnosis (CAD) in medical imaging, American Association of Physicists in Medicine (AAPM) (2008-2013)
- Working Group Steering Committee, American Medical Informatics Association (AMIA) (2008-2017)
- Membership and Outreach Committee, American Medical Informatics Association (AMIA) (2012-2015)
- Education Committee, American Medical Informatics Association (AMIA) (2012-2013)

Manuscript Reviews

Numerous reviews for venues such as *Medical Physics*, *IEEE Transactions on Medical Imaging*, *IEEE Transactions on Image Processing*, *Artificial Intelligence in Medicine*, *BMC Bioinformatics*, *Annals of Biomedical Engineering*, *Journal of Biomedical Informatics*, *Computers in Biology and Medicine*, *Proteomics*, *IEEE Transactions on Information Technology in Biomedicine*, and the *American Society for Engineering Education (ASEE) annual conferences*

Editorial Responsibilities

- *Ad hoc* associate editor for *Medical Physics* (2005-present)
- Member of Editorial Board of *Cancer Informatics* (2006-present)
- Associate guest editor (along with Tadaaki Hiruki and John A. Smith; and Peter Tarczy-Hornoch as guest editor) of a special issue of the *Journal of Biomedical Informatics* (February 2007)
- Member of Editorial Board of *Breast Cancer: Basic and Clinical Research* (2007-present)
- Editor of book on Physics of Mammographic Imaging, published by Taylor & Francis in November 2012, ISBN 978-1439875445
- Associate guest editor (along with May Wang and William Hsu) of a special issue of the *Journal of the American Medical Informatics Association* (2013)
- *Ad hoc* associate editor for *Journal of the American Medical Informatics Association* (2013-present)
- Guest editor (along with Tamara Miner Haygood and Elizabeth Krupinski) of a special section of the *Journal of Medical Imaging* (2018)

Grant Proposal Reviews (other than for US federal government agencies)

- Netherlands Organisation for Scientific Research
 - 1 proposal, 2004
- San Antonio Life Sciences Institute (SALSI)
 - 1 proposal, 2004; 1 proposal, 2005
- Science Foundation Arizona
 - Site visit chair 2008
- Technology Foundation STW (The Netherlands)
 - 1 proposal, 2009
- Innovation and Technology Commission (Hong Kong)
 - 1 proposal, 2009
- Kentucky Science and Engineering Foundation
 - 1 proposal, 2011; 1 proposal, 2012
- Dutch Cancer Society (KWF Kankerbestrijding)
 - 1 proposal, 2014
- Florida Department of Health, Biomedical Research Programs
 - 1 proposal, 2015
 - 1 proposal, 2016
- BUILDing Scholars seed grant program (2015)
- Dutch Cancer Society (KWF) & Dutch Technology Foundation (STW) joint program
 - 1 proposal, 2016

- Cancer Research UK
 - 1 proposal, 2017

Fellowship Reviews

- Science, Mathematics, and Research for Transformation Defense Scholarship for Service Program (SMART): March 2007, January 2008, January 2017
- Ford Foundation Diversity Fellowship: March 2009, March 2011, March 2012, March 2017
- Rosalie B. Hite Fellowships in Cancer Research, June 2015

Conference Committees (STEM)

- Program Committee, 4th IEEE International Symposium on Bioinformatics and Bioengineering (2004)
- Scientific Program Committee, American Medical Informatics Association 2005 Annual Symposium
- Program Committee, 6th IEEE International Symposium on Bioinformatics and Bioengineering (2006)
- Co-chair of Track 4.7 Translational Biomedical Informatics for Clinical Applications, IEEE Engineering in Medicine and Biology Conference (2012)
- Planning Committee, St. David's Center for Health Promotion and Disease Prevention Research in Underserved Populations (CHPR) Conference (2017)
- Organizing Committee, Medical Image Perception XVII Conference of the Medical Image Perception Society (MIPS) (2017)

Conference Committees (Engineering Education)

- Program Chair, conference organizing committee, American Association for Engineering Education (ASEE) Gulf-Southwest (GSW) Section Annual Meeting (2018)

Panels, Session Chairing, etc. (STEM)

- American Medical Informatics Association 2003 Annual Symposium, corporate roundtable
- American Medical Informatics Association 2003 Annual Symposium, chaired session on "Microarrays"
- Data Integration in the Life Sciences 2005, panel organizer and panelist, "The Electronic Health Record of the Future: Integrating Molecular Information"
- American Medical Informatics Association 2005 Annual Symposium, corporate roundtable
- American Medical Informatics Association 2005 Annual Symposium, panel organizer and panelist, "Towards Resource Sharing: Challenges and Opportunities for Imaging and Genomics Databases"
- American Medical Informatics Association 2005 Annual Symposium, chaired session on "Individual Differences and Individualized Care"
- American Medical Informatics Association 2005 Annual Symposium, chaired session on "Methods for Translational and Genomic Data"
- American Medical Informatics Association 2006 Spring Congress, moderated session on "Translational Bioinformatics: Integrating the Phenome with the Genome I - The -omics Perspective"
- Asilomar Conference on Signals, Systems, and Computers 2006, chair for session on "Computer-aided Diagnosis"
- Radiological Society of North America 2006 annual meeting, moderator for session on "Physics (CAD: Various Abnormalities)"
- 24th Annual Houston Conference on Biomedical Engineering Research, co-chaired session on "Bioinformatics" (2007)
- American Medical Informatics Association 2007 Annual Symposium, corporate roundtable
- International Joint Conference on Neural Networks (IJCNN 2009), Atlanta, GA, USA, June 14-19, 2009, co-chaired session on "Computational Intelligence in Medical Diagnosis"
- Co-chair, session on "Optical Image Reconstruction Algorithms," IEEE Engineering in Medicine and Biology Conference, 2011, Boston, MA
- Chair, session on "Data Mining, NLP, Information Extraction," American Medical Informatics Association 2011 Annual Symposium, Washington, DC

- Co-organized workshop on "Biomedical and Health Informatics" at IEEE Engineering in Medicine and Biology Conference 2012 (San Diego, CA) with May D. Wang (Georgia Institute of Technology and Emory University) and Stephen T.C. Wong (Weill Cornell Medical College, Cornell University)
- Chair, session on "Biomechanical Modeling," IEEE Engineering in Medicine and Biology Conference 2012, San Diego, CA
- Chair, technical session #3 on "Medical Scanning Systems," 3rd International Conference and Exhibition on 3D Body Scanning Technologies 2012, Lugano, Switzerland
- Co-Chair, two sessions on "Translational Biomedical Imaging Informatics" (I & II) at Biomedical Engineering Society (BMES) Annual Meeting 2012 (Atlanta, GA) with May D. Wang (Georgia Institute of Technology and Emory University).
- Chair, session on "Perception in Digital Pathology" at Medical Image Perception Conference XV (Washington DC, August 2013)
- Invited participant, American Association for Physicists in Medicine (AAPM) FOREM on Imaging Genomics (09/30/14-10/01/14)
- Participated in 70th Annual Meeting of the Oak Ridge Associated Universities (ORAU) Council of Sponsoring Institutions (03/04/15-03/05/15) on "Big Data Analytics: Challenges and Opportunities"
- Chair, session on "Medical Applications" at 8th International Conference and Exhibition on 3D Body Scanning Technologies, Montréal, Québec, Canada (2017)
- Chair, session on "Medical Applications" at 9th International Conference and Exhibition on 3D Body Scanning Technologies, Lugano, Switzerland (2018)

Panels, Session Chairing, etc. (Engineering Education)

- Moderated session on "Engineering Education and Research" at ASEE Gulf-Southwest Section conference (2006)
- Moderated session on "Faculty Development: Tenure & Promotion" at ASEE Annual Conference and Exposition (2006)
- Panelist, "New Faculty Forum," American Institute of Chemical Engineers 2006 Annual Meeting (2006)
- Moderated session on "BME Laboratories and Skills-based Projects" at ASEE Annual Conference and Exposition (2008)
- Co-Moderated session on "Tricks of the Trade II" at ASEE Annual Conference and Exposition (2009)
- Co-Moderated session on "Industry Perspectives & Collaborations & STEM K-12" at ASEE Gulf-Southwest Section conference (2015)
- Panelist, Academic Leadership for Women in Engineering (ALWE), Society of Women Engineers (SWE) (2017)
- Session Chair, American Association for Engineering Education (ASEE) Gulf-Southwest (GSW) Section Annual Meeting (2019)
- Panelist, "The Professional Development of Engineers", American Association for Engineering Education (ASEE) Gulf-Southwest (GSW) Section Annual Meeting (2019)

Invited Talks (STEM)

- Seminar at Southern Illinois University 07/03/08
- Seminar at Iowa State University 07/11/08
- Seminar at University of Kansas 07/23/08
- Guest speaker for annual meeting of American Cancer Society, Central Texas Region, 10/22/09
- Seminar at Rice University 09/28/10
- Seminar at Indiana University School of Medicine 06/13/11
- Presentation to the Board of Directors of the Society for Women's Health Research 04/30/13
- Seminar at Waggoner Center for Alcohol and Addiction Research, The University of Texas at Austin 09/18/13
- Invited speaker, American Association of Physicists in Medicine (AAPM) Annual Meeting & Exhibition, 07/21/14
- Seminar at Department of Radiation Oncology, The University of Texas MD Anderson Cancer Center 12/05/14
- Keynote speaker, Structural and Computational Biology and Molecular Biophysics Annual Research Conference, Baylor College of Medicine 02/19/15
- Seminar at School of Biomedical Informatics, The University of Texas Health Science Center at Houston 04/01/15

- Seminar at The University of Oklahoma 05/11/15
- Keynote speaker, Multidisciplinary Advances in Personalised Breast Cancer Surgery Summer School, Porto, Portugal 07/14/15
- Seminar at Division of Imaging, Diagnostics, and Software Reliability, Center for Devices and Radiological Health, US Food and Drug Administration (FDA) 08/13/15
- Seminar at Center for Women's and Gender Studies, The University of Texas at Austin 04/15/16
- Seminar at University of Kansas 06/17/16
- Seminar at Department of Radiation Oncology, The University of Texas Southwestern Medical Center 03/09/18

Invited Talks (Engineering Education)

- Feature Talk, Oak Ridge National Laboratory (ORNL) Annual Biomedical Science and Engineering Conference 08/25/15
- Seminar at STEM Education Program, College of Education, The University of Texas at Austin 09/11/15
- Keynote speaker, STEM Summit, Dallas County Community College District, April 2017

Continuing Medical Education, Professional Development presentations, etc.

- Faculty for refresher course on "CAD in Breast Imaging," Radiological Society of North America annual meeting 2009
- Faculty for refresher course on "CAD in Breast Imaging," Radiological Society of North America annual meeting 2010
- Presenter in workshop at SPIE Medical Imaging 2012 on "The NIH Grants Process"

Other

- External reviewer for review of Biomedical Engineering MS program at Southern Illinois University (SIU), 2011
- Preliminary review of Bioinformatics curriculum, Forman Christian College (Pakistan), 2014
- Review faculty applicants for Precision Instrument and Opto-Electronics Engineering, Tianjin University (China), 2016
- 2018 AIMBE Bioinformatics Subcommittee for 2018 AIMBE College of Fellows

COMMUNITY ACTIVITIES: (Non-technical activities, Include dates)

2009-2010	Alumni Interviewer, Duke University - Interviewed prospective undergraduates for admission to Duke
2003-2010	Faculty Fellow, Division of Housing and Food Service, UT Austin
2003-2005	Faculty Mentor, College of Engineering, UT Austin
2002-present	Volunteer, Panelist, or Lecturer for several Austin-based community outreach programs (<i>e.g.</i> , Breakthrough, Women in Engineering Program, Minority Introduction to Engineering) and campus organizations (<i>e.g.</i> , Society of Women Engineers, Biomedical Engineering Society (BMES), Engineering Faculty Women's Organization)
2001-2002	Planning Committee, Women In Science and Engineering (WISE), Duke University
2001-2002	Steering Committee, Expanding Your Horizons conference, North Carolina State University
1999-2002	At-Large Cabinet Member, Illinois Mathematics and Science Academy Alumni Association (IAA)
1998-2002	Women And Mathematics (WAM) Mentoring Program, Durham NC - '00-'02, Coordinating Team; '99, Mentor Leader; '98-'02, Mentor

PUBLICATIONS:

The names of postdoctoral researchers and students under Markey's mentorship are underlined and undergraduate co-authors under Markey's mentorship are further marked with asterisk.

A. Refereed Journal Papers

- A-[001] M.V. Boland, **M.K. Markey**, R.F. Murphy, "Automated recognition of patterns characteristic of subcellular structures in fluorescence microscopy images," *Cytometry* 33:366-375 (November 1998). PMID: 9822349
- A-[002] **M.K. Markey**, M.V. Boland, R.F. Murphy, "Toward objective selection of representative microscopy images," *Biophysical Journal* 76:2230-2237 (April 1999). PMID: PMC1300196
- A-[003] G.D. Tourassi, **M.K. Markey**, J.Y. Lo, C.E. Floyd, Jr., "A neural network approach to breast cancer diagnosis as a constraint satisfaction problem," *Medical Physics* 28:804-811 (May 2001). PMID: 11393476
- A-[004] G.D. Tourassi, E.D. Frederick, **M.K. Markey**, C.E. Floyd, Jr., "Application of the mutual information criterion for feature selection in computer-aided diagnosis," *Medical Physics* 28:2394-2402 (December 2001). PMID: 11797941
- A-[005] J.Y. Lo, **M.K. Markey**, J.A. Baker, C.E. Floyd, Jr., "Cross-institutional evaluation of BI-RADS predictive model for mammographic diagnosis of breast cancer," *American Journal of Roentgenology* 178:457-463 (February 2002). PMID: 11804918
- A-[006] **M.K. Markey**, J.Y. Lo, R. Vargas-Voracek, G.D. Tourassi, C.E. Floyd, Jr., "Perceptron error surface analysis: a case study in breast cancer diagnosis," *Computers in Biology and Medicine* 32:99-109 (March 2002). PMID: 11879823
- A-[007] **M.K. Markey**, J.Y. Lo, C.E. Floyd, Jr., "Differences between computer-aided diagnosis of breast masses and that of calcifications," *Radiology* 223:489-493 (May 2002). PMID: 11997558
- A-[008] **M.K. Markey**, J.Y. Lo, G.D. Tourassi, C.E. Floyd, Jr., "Self-organizing map for cluster analysis of a breast cancer database," *Artificial Intelligence in Medicine* 27:113-127 (February 2003). PMID: 12636975
- A-[009] **M.K. Markey**, G.D. Tourassi, C.E. Floyd, Jr., "Decision tree classification of proteins identified by mass spectrometry of blood serum samples from people with and without lung cancer," *Proteomics* 3:1678-1679 (September 2003). (short communication) PMID: 12973724
- A-[010] S.Y. Park, T. Collier, J. Aaron, **M.K. Markey**, R. Richards-Kortum, K. Sokolov, N. Mackinnon, C. MacAulay, L. Coghlan, A. Milbourne, M. Follen, "Multispectral digital microscopy for *in vivo* monitoring of oral neoplasia in the hamster cheek pouch model of carcinogenesis," *Optics Express* 13:749-762 (February 2005). PMID: 19494935
- A-[011] S. Gupta, **M.K. Markey**, "Correspondence in texture features between two mammographic views," *Medical Physics* 32:1598-1606 (June 2005). PMID: 16013719
- A-[012] **M.K. Markey**, G.D. Tourassi, M. Margolis*, and D.M. DeLong, "Impact of missing data in evaluating artificial neural networks trained on complete data," *Computers in Biology and Medicine* 36:516-525 (May 2006). PMID: 15893745
- A-[013] S. Gupta, P.F. Chyn*, **M.K. Markey**, "Breast cancer CADx based on BI-RADS™ descriptors from two mammographic views," *Medical Physics* 33:1810-1817 (June 2006). PMID: 16872088
- A-[014] M.P. Sampat, G.J. Whitman, T.W. Stephens, L.D. Broemeling, N.A. Heger, A.C. Bovik, **M.K. Markey**, "The reliability of measuring physical characteristics of spiculated masses on mammography," *British Journal of Radiology* 79:S134-S140 (December 2006). PMID: 17209119
- A-[015] M.S. Kim, G.P. Reece, E.K. Beahm, M.J. Miller, E.N. Atkinson, **M.K. Markey**, "Objective assessment of aesthetic outcomes of breast cancer treatment: measuring ptosis from clinical photographs," *Computers in Biology and Medicine* 37:49-59 (January 2007). PMID: 16438948
- A-[016] E.A. Fischer, M.A. Friedman*, **M.K. Markey**, "Empirical comparison of tests for differential expression on time-series microarray experiments," *Genomics* 89:460-470 (April 2007). PMID: 17188839
- A-[017] M.P. Sampat, G.J. Whitman, A.C. Bovik, **M.K. Markey**, "Comparison of algorithms to enhance spicules of spiculated masses on mammography," *Journal of Digital Imaging* 21:9-17 (March 2008). PMID: PMC3043831
- A-[018] H. Shin, B. Sheu*, M. Joseph*, **M.K. Markey**, "Guilt-by-association feature selection: identifying biomarkers from proteomic profiles," *Journal of Biomedical Informatics* 41:124-136 (February 2008). PMID: 17544868
- A-[019] H. Shin, M. Mutlu*, J.M. Koomen, **M.K. Markey**, "Parametric power spectral density analysis of noise from instrumentation in MALDI TOF mass spectrometry," *Cancer Informatics* 3:317-328 (September 2007). PMID: PMC2675828

- A-[020] M.S. Kim, W.N. Rodney*, T. Cooper, C. Kite, G.P. Reece, **M.K. Markey**, "Toward quantifying the aesthetic outcomes of breast cancer treatment: comparison of clinical photography and colorimetry," *Journal of Evaluation in Clinical Practice* 15:20-31 (February 2009). PMID: PMC3072466
- A-[021] S.Y. Park, M. Follen, A. Milbourne, H. Rhodes, A. Malpica, N. MacKinnon, C. MacAulay, **M.K. Markey**, R. Richards-Kortum, "Automated image analysis of digital colposcopy for the detection of cervical neoplasia," *Journal of Biomedical Optics* 13:014029 (January 2008). PMID: 18315387
- A-[022] L.T. Nieman, C.W. Kan, A. Gillenwater, **M.K. Markey**, K. Sokolov, "Probing local tissue changes in the oral cavity for the early detection of cancer using oblique polarized reflectance spectroscopy: a pilot clinical trial," *Journal of Biomedical Optics* 13:024011 (March 2008). PMID: 18465974
- A-[023] M.P. Sampat, A.C. Bovik, G.J. Whitman, **M.K. Markey**, "A model-based framework for the detection of spiculated masses on mammography," *Medical Physics* 35:0094-2405 (May 2008). PMID: 18561687
- A-[024] M.P. Sampat, A.C. Patel*, Y. Wang*, S. Gupta, C.W. Kan, A.C. Bovik, **M. K. Markey**, "Indexes for three-class classification performance assessment – an empirical comparison," *IEEE Transactions on Information Technology in Biomedicine* 13:300-312 (May 2009). PMID: 19171528
- A-[025] M.P. Sampat, Z. Wang, S. Gupta, A.C. Bovik, and **M.K. Markey**, "Complex Wavelet Structural Similarity: a new image similarity index," *IEEE Transactions on Image Processing* 18:2385-2401 (November 2009). PMID: 19556195
- A-[026] G. M. Pocock, R. G. Aranibar, N. J. Kemp, C. S. Specht, **M. K. Markey**, H. G. Rylander III, "The relationship between retinal ganglion cell axon constituents and retinal nerve fiber layer birefringence in the primate retinal nerve," *Investigative Ophthalmology and Visual Sciences* 50:5238-5246 (November 2009). PMID: PMC2783205
- A-[027] S.P. Borgaonkar, H. Hocker*, H. Shin, **M.K. Markey**, "Comparison of normalization methods for the identification of biomarkers using MALDI-TOF and SELDI-TOF mass spectra," *OMICS* 14:115-126 (February 2010). PMID: 20141334
- A-[028] S. Gupta, C.W. Kan, **M.K. Markey**, "Reducing variability in the output of pattern classifiers using histogram shaping," *Medical Physics* 37:1850-1862 (April 2010). PMID: 20443507
- A-[029] H. Shin, M.P. Sampat, J.M. Koomen, **M.K. Markey**, "Wavelet-based adaptive denoising and baseline correction for MALDI TOF MS," *OMICS* 14:283-295 (June 2010). PMID: 20455751
- A-[030] C.W. Kan, A.Y. Lee*, L.T. Nieman, K. Sokolov, **M.K. Markey**, "Adaptive spectral window sizes for extraction of diagnostic features from optical spectra," *Journal of Biomedical Optics* 15: 047012 (July/August 2010). PMID: PMC3188638
- A-[031] G.S. Muralidhar, A.C. Bovik, J.D. Giese*, M.P. Sampat, G.J. Whitman, T.M. Haygood, T.W. Stephens, **M.K. Markey**, "Snakules: a model-based active contour algorithm for the annotation of spicules on mammography," *IEEE Transactions on Medical Imaging* 29:1768-1780 (October 2010). PMID: 20529728
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I-[027] S. Gupta, W. Han*, D.R. Hurtubise*, M.S. Kim, E.K. Beahm, G.P. Reece, F.A. Merchant, **M.K. Markey**, “Assessment of breast reconstruction surgery outcomes using 3D human body scans,” Biomedical Engineering Society (BMES) Annual Fall Meeting (2007).

I-[028] M.S. Kim, A. Burgess, G.P. Reece, E.K. Beahm, A.J. Waters, K.M. Basen-Engquist, G. Baum, H. Lee, M.K. Markey, “Understanding surgeons’ assessments of the aesthetic outcome of breast cancer treatment using eye-tracking,” Medical Image Perception Conference XII (2007). (M. S. Kim was awarded a MIPS student scholarship for this work)

I-[029] C.W. Kan, B. Jiang*, L.T. Nieman, K. Sokolov, **M.K. Markey**, “Comparison of linear and non-linear classifiers for oral cancer screening by optical spectroscopy,” American Medical Informatics Association Annual Symposium (AMIA) (2007).

I-[030] M.S. Kim, W.N. Rodney*, G.P. Reece, T. Cooper, **M.K. Markey**, “Quantifying the aesthetic outcomes of breast cancer treatment: assessment of artificial scars,” American Medical Informatics Association Annual Symposium (AMIA) (2007).

I-[031] H. Shin, C.W. Kan, H.J. Hocker*, **M.K. Markey**, “Effect of normalization methods on biomarker identification utilizing mass spectrometry,” American Medical Informatics Association Annual Symposium (AMIA) (2007).

I-[032] R. Jahanbin, G. Muralidhar, M.P. Sampat, T. Haygood, T. Stephens, G.J. Whitman, A.C. Bovik, **M.K. Markey**, “Characterization of true and false positive locations of spiculated lesions on mammography,” American Association of Physicists in Medicine (AAPM) Annual Meeting (2008).

I-[033] M. Dabeer, M. Kyrish*, M.S. Kim, P. Reyes*, N. Udpa*, G.P. Reece, **M.K. Markey**, “Toward decision support for breast reconstruction: automated calculation of symmetry measure on clinical photographs,” American Medical Informatics Association Annual Symposium (AMIA) (2008).

I-[034] G.S. Muralidhar, S. Channappayya, J.H. Slater, E.M. Blinka*, A.C. Bovik, W. Frey, **M.K. Markey**, “Comparison of pre-processing techniques for fluorescence microscopy images of cells labeled for actin,” American Medical Informatics Association Annual Symposium (AMIA) (2008).

I-[035] M.M. Kawale, G.P. Reece, E.K. Beahm, M.A. Crosby, **M.K. Markey**, F.A. Merchant, “Automated nipple identification in three-dimensional surface scans of torso,” Biomedical Engineering Society (BMES) Annual Meeting (2009).

I-[036] J. Lee, Y. Shrestha*, G.S. Muralidhar, A.D. Guidry, A.C. Da Silveira, **M.K. Markey**, P.K. Kelley, “Quantitative models of facial attractiveness for pediatric population,” Central Texas Clinical Research Forum (2010). (J. Lee received New Investigator Poster Award)

I-[037] M. Kawale, A. Bose, G.P. Reece, E.K. Beahm, M.A. Crosby, **M.K. Markey**, F.A. Merchant, “Automated detection of fiducial points in 3D torso images,” Biomedical Engineering Society (BMES) Annual Meeting (2010).

I-[038] E. Kim*, J. Lee, E.K. Beahm, M.A. Crosby, G.P. Reece, **M.K. Markey**, “Automated calculation of ptosis on clinical photographs,” Biomedical Engineering Society (BMES) Annual Meeting (2010).

I-[039] A. Datta*, S. Liu, G.S. Muralidhar, A. Paranjape, B. Elmaanaoui, J. Dewelle, T.E. Milner, H.G. Rylander III, **M.K. Markey**, “Blood vessel detection in line-scanning laser ophthalmoscope and raster scan images from optical coherence tomography,” Biomedical Engineering Society (BMES) Annual Meeting (2010).

I-[040] A.K. Hu*, G.S. Muralidhar, A.C. Bovik, **M.K. Markey**, “Computer-aided detection of spiculated masses,” Biomedical Engineering Society (BMES) Annual Meeting (2010).

I-[041] A. Miranda*, C-W. Kan, D. Cote, K. Sokolov, **M.K. Markey**, “Visualization tools for Pol-MC to simulate polarized light-tissue interaction,” Biomedical Engineering Society (BMES) Annual Meeting (2010).

I-[042] J. Salazar*, C-W. Kan, D. Cote, K. Sokolov, **M.K. Markey**, “Polarization sensitive Monte Carlo simulation of layered Tissues,” Biomedical Engineering Society (BMES) Annual Meeting (2010).

I-[043] D. Wang, C. Sun, J. Lee, G.P. Reece, M.A. Crosby, E.K. Beahm, **M.K. Markey**, “Development of a Bayesian network to model decisions about tissue expansion implant breast reconstruction,” 3rd Annual International Conference in Computational Surgery, Houston, Texas, January 26th-28th (2011).

I-[044] C. Sun, M.C. Fingeret, M.S. Kim, K.M. Basen-Engquist, M.A. Crosby, G.P. Reece, E.K. Beahm, **M.K. Markey**, “Towards a standardized lexicon for assessment of breast aesthetics,” 3rd Annual International Conference in Computational Surgery, Houston, Texas, January 26th-28th (2011).

- I-[045] J. Lee, J. Salazar*, M.C. Fingeret, M.A. Crosby, G.P. Reece, E.K. Beahm, **M.K. Markey**, "Investigation of factors impacting ptosis using quantitative imaging," 3rd Annual International Conference in Computational Surgery, Houston, Texas, January 26th-28th (2011).
- I-[046] M.M. Kawale, G.P. Reece, E.K. Beahm, M.A. Crosby, **M.K. Markey**, F.A. Merchant, "Automated Identification of Fiducial Points on 3D Torso Images," 3rd Annual International Conference in Computational Surgery, Houston, Texas, January 26th-28th (2011).
- I-[047] J. Lee, **M.K. Markey**, P.K. Kelley, A.C. Da Silveira, "Development of quantitative measures of facial appearance of healthy Hispanic Caucasian children," American Cleft Palate – Craniofacial Association annual meeting (2011).
- I-[048] D. Vining, N. Garg, **M.K. Markey**, T. Ganapathi, O. Komogortsev, "Principles and radiologic applications of eye-tracking technology," Annual Meeting of the American Roentgen Ray Society (2011) (educational exhibit)
- I-[049] G.S. Muralidhar, **M.K. Markey**, A.C. Bovik, T.W. Stephens, T.M. Haygood, W.R. Geiser, N. Garg, G.J. Whitman, "Stereoscopic viewing of tomosynthesis projection Images," Medical Image Perception Society (MIPS) XIV Conference (2011) (G. S. Muralidhar was awarded a MIPS student scholarship for this work)
- I-[050] T. Ganapathi, **M.K. Markey**, D.J. Vining, N. Garg, "Towards automatic structured reporting in radiology: paired gaze and speech analysis," Medical Image Perception Society (MIPS) XIV Conference (2011). (T. Ganapathi was awarded a MIPS student scholarship for this work)
- I-[051] S. Liu, D. Ho*, K. Sung*, A. Datta*, T.E. Milner, H.G. Rylander III, **M.K. Markey**, "Comparison of registration methods for Line-Scanning Laser Ophthalmoscope images from Optical Coherence Tomography," Biomedical Engineering Society (BMES) Annual Meeting (2011).
- I-[052] D. Wang, **M.K. Markey**, A. Arapostathis, "Principal oscillation patterns of genome-wide gene expression," Biomedical Engineering Society (BMES) Annual Meeting (2011).
- I-[053] C.S. Sun, D. Wang, J. Lee, G.P. Reece, M.C. Fingeret, M.A. Crosby, E.K. Beahm, **M.K. Markey**, "Towards a decision basis of breast reconstruction: Defining the alternatives," American Medical Informatics Association Annual Symposium (AMIA) (2011).
- I-[054] G.S. Muralidhar, **M.K. Markey**, A.C. Bovik, T.W. Stephens, T.M. Haygood, W. Geiser, N. Garg, G.J. Whitman, "Stereoscopic characterization of breast masses on tomosynthesis projection images," Radiological Society of North America Annual Meeting (2011).
- I-[055] D.J. Vining, N. Garg, **M.K. Markey**, T. Ganapathi, R. Rosu, M. Jurca, I. Aghentitei, "Use of eye-tracking technology and natural language processing for data input into a multimedia structured report," Radiological Society of North America Annual Meeting (2011).
- I-[056] D.J. Vining, A.M. Tsimberidou, N. Garg, **M.K. Markey**, T. Ganapathi, J. Wang, R. Rosu, M. Jurca, I. Aghentitei, "A vision for radiology structured reporting," Radiological Society of North America Annual Meeting (2011).
- I-[057] R. Hennessy, **M.K. Markey**, & J.W. Tunnell, "Parallel Monte Carlo-based inverse model for determining optical properties in multilayer tissues," BioMedOpTex 2012, College Station, TX, May 23rd – 25th (2012) (R. Hennessy received Honorable Mention poster award.)
- I-[058] J. Lee, B. Ku*, **M.K. Markey**, P.K. Kelley, A.C. Da Silveira, "Comparison of facial anthropometry of healthy Hispanic Caucasian vs. Non-Hispanic Caucasian children," American Cleft Plate-Craniofacial Association annual meeting (2012).
- I-[059] J. Lee, G. Muralidhar, A.C. Bovik, M.C. Fingeret, **M.K. Markey**, "Correlation between structural and color changes in 3D facial images of head and neck cancer patients following reconstructive surgery," Computer Assisted Radiology and Surgery (2012).
- I-[060] C.S. Sun, K. Fan*, G.P. Reece, M.A. Crosby, E.K. Beahm, M.C. Fingeret, **M.K. Markey**, "Quantifying breast aesthetics from clinical photographs: symmetry of lateral extents (SOLE)," Biomedical Engineering Society (BMES) Annual Meeting (2012).
- I-[061] Y.P.A. Tan*, N. Verma, R. Hartman, M.C. Cowperthwaite, M.G. Burnett, **M.K. Markey**, "Automatic quantification of brain tissue atrophy on computed tomography," Biomedical Engineering Society (BMES) Annual Meeting (2012).
- I-[062] **M.K. Markey**, "Quantifying human appearance to support decision-making in reconstructive surgery," Biomedical Engineering Society (BMES) Annual Meeting (2012).
- I-[063] N. Kumaraswamy, H. Khatam, G.P. Reece, **M.K. Markey**, K. Ravi-Chandar, "A methodology to determine geometry and boundary conditions for breast FEM simulations," Biomedical Engineering Society (BMES) Annual Meeting (2012).
- I-[064] T. Ganapathi, R.L. Bassett, N. Garg, D.J. Vining, **M.K. Markey**, "Man-machine interface for radiology reporting:

- identification of key sources of variability," Biomedical Engineering Society (BMES) Annual Meeting (2012).
- I-[065] R. Hennessy, **M.K. Markey**, J.W. Tunnell, "Parallel Monte Carlo-based inverse model for determining optical properties in multilayer tissues," Biomedical Engineering Society (BMES) Annual Meeting (2012).
- I-[066] C.S. Sun, M.S. Kim, M.A. Crosby, G.P. Reece, E.K. Beahm, G.P. Baum, M.C. Fingeret, **M.K. Markey**, "Identifying key descriptors of breast aesthetics for a standardized rating scale," American Medical Informatics Association Annual Symposium (AMIA) (2012).
- I-[067] J. Lee, J. Salazar*, **M.K. Markey**, A.C. Da Silveira, "Comparison of 3D Images of children with cleft lip and palate undergoing NAM treatment," 12th International Congress on Cleft Lip/Palate and Related Craniofacial Anomalies (2013).
- I-[068] R. Hennessy, M. Sharma, **M.K. Markey**, & J.W. Tunnell, "An inverse model for determining optical properties of multilayered tissues using diffuse reflectance spectroscopy at two source detector distances." Advances in Optics for Biotechnology, Medicine and Surgery XIII (June 2013).
- I-[069] S. Bish, R. Hennessy, **M.K. Markey**, & J.W. Tunnell, "Expanded range of optical property measurement using dynamically filtered DMD diffuse optical spectroscopy." Advances in Optics for Biotechnology, Medicine and Surgery XIII (June 2013).
- I-[070] G. Wen, **M.K. Markey**, "Using partial least squares to estimate channels for detecting multiple signals in multiple locations" Medical Image Perception Society (MIPS) XV Conference (2013). (G. Wen was awarded a MIPS student scholarship for this work)
- I-[071] H. Khatam, M.C. Fingeret, G.P. Reece, **M.K. Markey**, K. Ravi-Chandar, "Measurement of skin deformation of the breast associated with position change through 3D digital image correlation," Biomedical Engineering Society (BMES) Annual Meeting (2013).
- I-[072] B. Printy*, N. Verma, **M.K. Markey**, "Structural imaging biomarkers for early detection of Alzheimer's Disease," Biomedical Engineering Society (BMES) Annual Meeting (2013).
- I-[073] N. Verma, **M.K. Markey**, "Modeling temporal progression of Alzheimer's Disease," Biomedical Engineering Society (BMES) Annual Meeting (2013).
- I-[074] K. Fan*, C. Sun, G.P. Reece, **M.K. Markey**, "Towards elicitation of expert beliefs and decision-maker preferences about breast reconstruction: a probability wheel application," Biomedical Engineering Society (BMES) Annual Meeting (2013).
- I-[075] G. Wen, **M.K. Markey**, "Using the sparse matrix transformation for the estimation and channelization of the Hotelling model observer," Biomedical Engineering Society (BMES) Annual Meeting (2013).
- I-[076] J. Lee, H. Vikalo, **M.K. Markey**, "Automated segmentation of nose using Bayesian filter," Biomedical Engineering Society (BMES) Annual Meeting (2013).
- I-[077] M.C. Fingeret, J. Lee, I. Teo, G.P. Reece, **M.K. Markey**, "Quantifying facial expression of head and neck cancer patients undergoing reconstructive surgery: How does smiling intensity relate to psychosocial functioning?," Psycho-Oncology 15th World Congress (2013).
- I-[078] C.S. Sun, G.P. Reece, M.A. Crosby, M.C. Fingeret, R.J. Skoracki, M.T. Villa, M.M. Hanasono, D.P. Baumann, D.W. Chang, S.B. Cantor, **M.K. Markey**, "Plastic surgeon expertise in predicting outcomes of breast reconstruction," American Medical Informatics Association Annual Symposium (AMIA) (2013).
- I-[079] G.S. Muralidhar, A.C. Bovik, **M.K. Markey**, "Towards quantitative stereo mammography – a disparity estimation algorithm for stereo mammograms," Radiological Society of North America Annual Meeting (2013).
- I-[080] R.J. Hennessy, M. Sharma, **M.K. Markey**, J.W. Tunnell, "Measuring depth dependent optical properties using diffuse reflectance spectroscopy," SPIE Photonics West (2014).
- I-[081] B. Wang, B. Yin, J. Dwelle, H.G. Rylander III, **M.K. Markey**, T.E. Milner, "Scattering changes during neuronal apoptosis using pathlength multiplexed scattering angle resolved optical coherence tomography," SPIE Photonics West (2014).
- I-[082] R. Hennessy, W. Goth, M. Sharma, **M.K. Markey**, & J.W. Tunnell, "Sampling Depth of Diffuse Reflectance Spectroscopy Probes: Computational and Experimental Analysis." OSA BIOMED (2014).
- I-[083] N. Kumaraswamy, K. Ravi-Chandar, **M.K. Markey**, G.P. Reece, M.C. Fingeret, "Full-field biaxial characterization of skin using a custom built bulge test device," World Congress of Biomechanics (2014).
- I-[084] U. Nguyen*, N. Kumaraswamy, **M.K. Markey**, "Variation in measurements of breast skin thickness obtained using different imaging modalities," American Association of Physicists in Medicine (AAPM) Annual Meeting & Exhibition (2014).
- I-[085] **M.K. Markey**, "Machine learning in image-omics," American Association of Physicists in Medicine (AAPM)

Annual Meeting & Exhibition (2014). [invited talk]

I-[086] G. Wen, **M.K. Markey**, "The use of kernel PCA for the channelization of the Hotelling Model Observer," Biomedical Engineering Society (BMES) Annual Meeting (2014).

I-[087] F. Pecen*, G. Wen, T. Ganapathi, D. Vining, T.M. Haygood, **M.K. Markey**, "Computational saliency maps of medical images to predict radiologists' gaze fixations," Biomedical Engineering Society (BMES) Annual Meeting (2014).

I-[088] N. Verma, **M.K. Markey**, "Psychometric analysis of Alzheimer's Disease Assessment Scale," Biomedical Engineering Society (BMES) Annual Meeting (2014).

I-[089] G.P. Reece, F.A Merchant, H. Khatam, K. Ravi-Chandar, J. Weston, M.C. Fingeret, C. Lane, K. Duncan, **M.K Markey**, N. Kumaraswamy, "3D surface imaging of the human female torso in upright to supine positions," Biomedical Engineering Society (BMES) Annual Meeting (2014).

I-[090] R. Hennessy, S. Maity*, S.L. Lim, J.W. Tunnell, **M.K. Markey**, "Skin cancer detection with diffuse reflectance spectroscopy," Biomedical Engineering Society (BMES) Annual Meeting (2014).

I-[091] A.A. Ben Ramadan, M.A. Clarke, **M.K. Markey**, M.R. Aro, K.J. Lage, K.L. Ingalls, V. Sindhwani, M.S. Kim, "Standard description guidelines and star ratings are not good measurements for usability issues of mobile applications that support training in diagnostic decision making for radiologists," Workshop on Interactive Systems in Healthcare (WISH) (2014).

I-[092] K. Bravo, **M.K. Markey**, S.-C. Huang, "Breast cancer survivors who undergo mastectomy and breast reconstruction choose to wear cotton undergarments," Beltwide Cotton Conferences (2015).

I-[093] **M.K. Markey**, "BreastDecisions: 3D modeling-based decision support for optimizing quality of life following breast reconstruction," Multidisciplinary Advances in Personalised Breast Cancer Surgery (2015).

I-[094] N. Soberon*, N. Verma, **M.K. Markey**, "Optimal normalization of volumetric brain measurements in Alzheimer's Disease," Biomedical Engineering Society (BMES) Annual Meeting (2015).

I-[095] M. Kim, M.R. Aro, K.J. Lage, K.L. Ingalls, V. Sindhwani, **M.K. Markey**, "Usability of mobile apps for radiology diagnostic decision-making," American Medical Informatics Association Annual Symposium (AMIA) (2015).

I-[096] G. Wen, A. Aizenman, T. Drew, J.M. Wolfe, T.M. Haygood, **M.K. Markey**, "Computational assessment of visual search strategies in volumetric medical images," Workshop on Natural Environments Tasks and Intelligence (2016).

I-[097] M.C. Fingeret, J. Weston, M.C. Bordes, S.C. Huang, G.P. Reece, F.A. Merchant, S. Cantor, **M.K. Markey**, "Understanding the unmet needs of women with breast cancer undergoing reconstructive surgery," Appearance Matters 7 Conference (2016).

I-[098] G. Wen, **M.K. Markey**, S. Park, "Influence of local anatomical variations on detection of multifocal and multicentric breast cancer," American Association of Physicists in Medicine (AAPM) Annual Meeting (2016).

I-[099] J. Reddy, X. Lei, S.C. Huang, K.M. Nicklaus, M.C. Fingeret, S.F. Shaitelman, K.K. Hunt, T.A. Buchholz, F. Merchant, **M.K. Markey**, and B.D. Smith, "Using quantitative metrics of breast cosmesis to compare fractionation regimens for whole-breast irradiation," ASTRO (2016).

I-[100] E. Loera*, K.M. Nicklaus, M. Bordes, J. Lee, A. Cheong, M.C. Fingeret, F.A. Merchant, G.P. Reece, **M.K. Markey**, "Design of stereoscopic visualization of mastectomy specimens for augmented reality glasses," Biomedical Engineering Society (BMES) Annual Meeting (2016).

I-[101] J. Weston, M.C. Bordes, S.C. Huang, G.P. Reece, F.A. Merchant, S.B. Cantor, **M.K. Markey**, M.C. Fingeret, "Patient preferences for visualizing possible outcomes of breast reconstruction," American Medical Informatics Association Annual Symposium (AMIA) (2016).

I-[102] C. Crerand, A.C. Da Silveira, H. Kapa, J. Litteral, **M.K. Markey**, A. Mercado, M. Scott, "Adherence to orthodontic treatment in youth with cleft lip and/or palate," American Cleft Palate-Craniofacial Association's (ACPA) 74th Annual Meeting (2017).

I-[103] A. Moy, X. Feng, H. Nguyen, Y. Zhang, K. Sebastian, **M.K. Markey**, J. Reichenberg, J. Tunnell, "Non-invasive skin cancer diagnosis using diffuse reflectance, fluorescence, and Raman spectroscopy," American Society for Laser Medicine and Surgery (ASLMS) Annual Conference (2017).

I-[104] J.P. Reddy, X. Lei, K.M. Nicklaus, M.C. Fingeret, S.F. Shaitelman, K.K. Hunt, T.A. Buchholz, F.A. Merchant, **M.K. Markey**, B.D. Smith, "Using quantitative 3D metrics of breast cosmesis to compare fractionation regimens for whole breast irradiation," American Radium Society Annual Meeting (2017).

I-[105] J.M. Engelmann, J. Cho, J. Liu, J. Weston, M.C. Bordes, A.A. Vujanovic, J.C. Babcock, M.C. Fingeret, G.P. Reece, S.E. Hanson, **M.K. Markey**, "Types of emotion and the perception of facial Disfigurement," 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (2017).

- I-[106] K.M. Nicklaus, J. Cho, A. Cheong, J. Liu, F.A. Merchant, M.C. Fingeret, G.P. Reece, **M.K. Markey**, "Effects of breast volume change on breast cancer patients' satisfaction with breast reconstruction outcomes," 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (2017).
- I-[107] G. Wen, K.M. Nicklaus, T.M. Haygood, **M.K. Markey**, "A human observer study of multi-lesion detection in digital breast tomosynthesis," Medical Image Perception Society (MIPS) XVII Conference (2017).
- I-[108] K.M. Nicklaus, A. Naqvi*, M.C. Bordes, G.P. Reece, **M.K. Markey**, "Towards augmented reality visualization of mastectomy specimens for breast reconstruction surgery," Medical Image Perception Society (MIPS) XVII Conference (2017). (K. Nicklaus was awarded a MIPS student scholarship for this work)
- I-[109] A.J. Moy, X. Feng, H. Nguyen, Y. Zhang, **M.K. Markey**, J.S. Reichenberg, J.W. Tunnell, "Raman, reflectance and fluorescence spectroscopy for the noninvasive diagnosis of skin cancer," Conference on Lasers and Electro-Optics (CLEO) Pacific Rim (2017).
- I-[110] M. Diab, N. Kumaraswamy, G.P. Reece, M. Fingeret, **M.K. Markey**, K. Ravi-Chandar, "Characterization of human female breast skin anisotropy using bulge test," Biomedical Engineering Society (BMES) Annual Meeting (2017).
- I-[111] K.M. Nicklaus, G. Wen, J. Cho, A. Cheong, G.P. Reece, F.A. Merchant, M.C. Fingeret, S. Cantor, **M.K. Markey**, "Developing a retrieval method for a Case-Based Reasoning system for predicting appearance after breast reconstruction," Biomedical Engineering Society (BMES) Annual Meeting (2017).
- I-[112] Y. Zhang, A. Pratapa, **M.K. Markey**, J.W. Tunnell, "Computational verification of a two-layer inverse Monte Carlo look-up table model using diffuse reflectance spectroscopy," Biomedical Engineering Society (BMES) Annual Meeting (2017).
- I-[113] J. Cho, M.C. Fingeret, S.-C. Huang, G.P. Reece, **M.K. Markey**, "Emotional arousal and the perception of facial disfigurement," Biomedical Engineering Society (BMES) Annual Meeting (2017).
- I-[114] T. Lewis*, K.M. Nicklaus, A. Naqvi*, M. Bordes, A. Cheong, M.C. Fingeret, F.A. Merchant, G.P. Reece, **M.K. Markey**, "Design of intraoperative visualizations of mastectomy specimens for breast reconstruction surgery," Biomedical Engineering Society (BMES) Annual Meeting (2017).
- I-[115] Y. Garay*, K.M. Nicklaus, G. Wen, J. Cho, A. Cheong, G.P. Reece, F.A. Merchant, **M.K. Markey**, "Exploration of variables for use in a retrieval method for a Case Based Reasoning system for predicting appearance after breast reconstruction," Biomedical Engineering Society (BMES) Annual Meeting (2017).
- I-[116] K.M. Nicklaus, I. Teo, G.P. Reece, S.-C. Huang, K. Mahajan, J. Andon, P. Khanal, C. Sun, F.A. Merchant, **M.K. Markey**, M.C. Fingeret, "Relationships among breast symmetry, appearance investment, and body image dissatisfaction in breast cancer patients undergoing reconstruction," San Antonio Breast Cancer Symposium (2017).
- I-[117] C.E. Crerand, H.M. Kapa, J. Litteral, A.C. DaSilveira, **M.K. Markey**, "Adherence to orthodontic treatment in Cleft Lip/Palate populations: A survey of treatment providers," American Cleft Palate-Craniofacial Association's (ACPA) 75th Annual Meeting (2018).
- I-[118] Y. Zhang, J.A. George*, V.I. Chang, K. Ali*, W. Goth, J. Reichenberg, J. Vickers, **M.K. Markey**, J.W. Tunnell, "An automated mole ranking system (MoleList) for skin cancer screening," 38th Annual Conference of the American Society for Laser Medicine and Surgery (ASLMS) (2018).
- I-[119] S. Kwon, S. Kim, H.S. Lee, J.Y. Park, K.J. Kim, **M.K. Markey**, A.C. Bovik, S. Bang, S.W. Park, S.Y. Song, J.B. Chung, M.J. Chung, "Survival analysis based on relationship between Lewis Antigen and carbohydrate antigen 19-9 in 1115 patients with pancreatic cancer in Asian population," Digestive Disease Week (2018).
- I-[120] S. Kim, S. Kwon, H.S. Lee, K.J. Kim, **M.K. Markey**, A.C. Bovik, J.Y. Park, S. Bang, S.W. Park, S.Y. Song, J.B. Chung, M.J. Chung, "CA19-9 nadir within the first 12 weeks of chemotherapy predicts overall survival in patents with advanced pancreatic cancer," Digestive Disease Week (2018).
- I-[121] S. Kim, S. Kwon, **M.K. Markey**, A.C. Bovik, S. Hong, J. Kim, B. Joung, J. Park, "Paroxysmal versus persistent atrial fibrillation: predictive benefit from 10 seconds of surface 12-lead electrocardiogram," European Society of Cardiology Congress, European Heart Journal 39 (Supplement): 265 (2018).
- I-[122] S. Kwon, S. Kim, **M.K. Markey**, A.C. Bovik, H. Lee, B. Joung, H. Im, J. Park, "Sex differences in influence of atrial fibrillation on mortality of patients with ischemic stroke," European Society of Cardiology Congress, European Heart Journal 39 (Supplement): 824-825 (2018).
- I-[123] S. Kwon, S. Kim, A.C. Bovik, **M.K. Markey**, H. Lee, G. Joo, Y. Song, B. Joung, H. Im, J. Park, "Risk of mortality depends on the temporal sequence of atrial fibrillation and ischemic stroke," European Society of Cardiology Congress, European Heart Journal 39 (Supplement): 862 (2018).
- I-[124]. X. Feng, M. Fox, J. Reichenberg, F. Lopes, K. Sebastian, **M.K. Markey**, J.W. Tunnell, "Skin tumor surgical

margin detection using Raman spectroscopy,” Biomedical Engineering Society (BMES) Annual Meeting (2018).

I-[125] K.M. Nicklaus, K. Ali*, F.A. Merchant, S.E. Hanson, G.P. Reece, **M.K. Markey**, “Development of an expert surgeon validation tool for breast reconstruction decision-making,” Biomedical Engineering Society (BMES) Annual Meeting (2018).

I-[126] A. Zaharan*, K.M. Nicklaus, M.C. Bordes, G.P. Reece, S.E. Hanson, F.A. Merchant, **M.K. Markey**, “Developing a Microsoft HoloLens application for mastectomy specimen visualizations,” Biomedical Engineering Society (BMES) Annual Meeting (2018).

I-[127] K.M. Nicklaus, B. Tsang*, M.C. Bordes, F.A. Merchant, S.E. Hanson, G.P. Reece, **M.K. Markey**, “Preliminary evaluation of a Microsoft HoloLens augmented reality visualization of mastectomy specimens during breast reconstruction,” American Medical Informatics Association Annual Symposium (AMIA) (2018).

I-[128] K.M. Nicklaus, A.L. Cheong, J. Liu, G.P. Reece, M.C. Bordes, S.E. Hanson, **M.K. Markey**, F.A. Merchant, “3D symmetry of pre-operative breasts in cancer patients,” San Antonio Breast Cancer Symposium (2018).

I-[129] K.M. Nicklaus, E. Callado*, J. Cho, M.C. Bordes, J. Liu, D. Chopra, J.M. Engelmann, G.P. Reece, S.E. Hanson, **M.K. Markey**, “Investigating observer gaze patterns on facial disfigurements from head and neck cancer,” Medical Image Perception Society (MIPS) XVIII Conference (2019).

Engineering Education

L-[001] **M. K. Markey**, K. J. Schmidt, S. Hays*, “Non-linear PowerPoint as an aid in learning probability, random processes, and statistics” (ASEE GSW 2006 Conference).

L-[002] K. J. Schmidt, **M. K. Markey**, C. C. Seepersad, “Preparing new engineering faculty for the classroom: a dialogue on faculty development efforts” (ASEE Annual Conference and Exposition 2006).

L-[003] **M. K. Markey**, K. J. Schmidt, “Do instructional technologies provide the same benefits for students with different learning styles?” (ASEE GSW 2007 Conference).

L-[004] K. J. Schmidt, **M. K. Markey**, T. E. Milner, “Distance learning in support of an inter-institutional BME department” (Texas Distance Learning Association 2007 Annual Conference).

L-[005] M. Zaman, **M. K. Markey**, K. J. Schmidt, “Developing a numerical methods course with a substantial computer-programming component based on cutting-edge research problems: Success and Challenges” (ASEE GSW 2008 Conference).

L-[006] **M. K. Markey**, K. J. Schmidt, W. Park, “Instructional technology in engineering: do men and women derive the same benefits?” (ASEE GSW 2009 Conference).

L-[007] L. E. Katz, **M. K. Markey**, K. J. Schmidt, S. E. Woods, T. S. Berry, “The impact of funding on female faculty advancement” (WEPAN National Conference 2009).

L-[008] **M.K. Markey**, E.F. Stuckey, D. Hoang, D. McClelland, “Experiences of first-generation college students from NCSSMST schools” (NCSSMST Professional Conference, Austin TX, October 2011).

L-[009] M. Cousins, J. Paz, **M.K. Markey**, “Assessment of first-year programs: practical advice for engineering faculty and staff,” American Society for Engineering Education Gulf-Southwest Conference (2015).

L-[010] **M.K. Markey**, M.J. Daniels, R.R. Gutell, “Health data sciences education: academic perspective,” Oak Ridge National Laboratory (ORNL) Annual Biomedical Science and Engineering Conference (2015). (invited feature talk)

L-[011] J.M. Paz, M. Cousins, **M.K. Markey**, “Sense of community among BME Undergraduates in a first-year program,” Biomedical Engineering Society (BMES) Annual Meeting (2015).

L-[012] M. Cousins, L.J. Suggs, **M.K. Markey**, “Mentor training practices of NSF funded Research Experiences for Undergraduates (REU) Sites,” American Society for Engineering Education Gulf-Southwest Conference (2016).

L-[013] M. Cousins, L.K. Gonzales, E. Dolan, K.E. Flowers, C. Becker, L.J. Suggs, **M.K. Markey**, “Work in Progress: enhancing the undergraduate research experience through partnership with a non-profit organization,” American Society for Engineering Education Annual Conference and Exposition (2016).

L-[014] M. Cousins, S. Young, E. Dolan, L. Gonzales, B. DeMont, **M.K. Markey**, L. Suggs, “A “Boot Camp” as in-laboratory introduction to research methods for a Research Experiences for Undergraduates program,” Biomedical Engineering Society (BMES) Annual Meeting (2016).

L-[015] J. Savoy, **M.K. Markey**, H.G. Rylander, “Continuous improvement in instruction in responsible conduct of research,” Biomedical Engineering Society (BMES) Annual Meeting (2017).

L-[016] M. Cousins, C. Sviatko, S. Young, L.J. Suggs, **M.K. Markey**, B. DeMont, “Improvements on a communication intervention as a part of a summer Research Experiences for Undergraduates (REU) Program,” Biomedical Engineering Society (BMES) Annual Meeting (2017).

PATENTS:

US Patent No. 8164039, Issue Date 04/24/2012, "Method and Apparatus for Detecting Spiculated Masses in Mammography". A.C. Bovik, M.K. Markey, M.P. Sampat.

GRANTS AND CONTRACTS:

Role & Project Leads	Title	Agency	Grant Total	Grant Period
PI	Computer decision aid for the diagnosis of pancreatic cancer using mass spectrometry	UT Center for BME (seed grant)	\$20,000	09/2003-08/2004
PI	Objective assessment of breast reconstruction aesthetics	Vice President for Research, UT Austin	\$5,240	12/2003-08/2004
PI	Computer-aided diagnosis of breast cancer on dynamic contrast-enhanced MRI	UT Center for BME (seed grant)	\$28,570	01/2006-12/2006
PI	Objective assessment of breast reconstruction aesthetics	NIH/NCI (R21CA109040)	\$328,186	04/2005-03/2008
Consultant	3D breast anatomy analysis in cancer treatment planning and outcome assessment	NIH/NCI (R43CA121646)	N/A	09/2007-08/2008
PI: Merchant				
PI	Evidence-based computer-aided detection of breast cancer	Wallace H. Coulter Foundation	\$240,000	08/2006-12/2008
Co-PI	Computer aided detection of breast cancer	UT System	\$50,000	01/2010-01/2011
Co-PI: Bovik				
Co-investigator	Quantitative RNFL assessment for glaucoma diagnosis	NIH/NEI (R01EY016462)	N/A	02/2006-01/2012
PI: Rylander				
Co-PI	Differentiating brain tumor recurrence from treatment effects	Texas4000 (gift)	\$25,000	09/2011-08/2012
Co-PI: Cowperthwaite				
PI	Quantifying appearance changes following breast reconstruction	American Cancer Society (RSGPB-09-157-01-CPPB)	\$686,000	07/2009-06/2014
Co-Director	Comprehensive training program in imaging science and informatics	NIH/NIBIB (T32 EB007507)	\$723,132	08/2009-07/2014
PI: Rylander				
PI	Facial disfigurement and facial identity following head and neck cancer	UT Austin Center for Identity (CID RA2015010)	\$46,653	06/2015-08/2015
PI	Design of custom post-surgical garments for breast cancer survivors	Vice President for Research, UT Austin	\$750	05/2015-08/2015
Co-Investigator (PI of subcontract)	Body image functioning in cancer patients undergoing facial reconstruction	American Cancer Society (MRSB-10-010-01)	\$720,792 (UT sub: \$100,816)	01/2010-12/2015
PI: Fingeret				

PI	NSF/FDA SIR: Numerical Model Observer for Multiple Abnormalities	NSF (CBET-1445713)	\$9,712	01/2015-12/2015
PI	3-D computer modeling for optimizing body image following breast reconstruction	NIH/NCI (R01CA143190)	\$2,872,311	08/2010-05/2016
Co-PI	REU Site: BME Community of Undergraduate Research Scholars for Cancer (BME CUREs Cancer)	NSF (1461192)	\$287,684	06/2015-06/2018
Co-PI: Suggs				
Co-Investigator	Noninvasive detection of skin cancer using combined Raman, reflectance, and fluorescence spectroscopy	CPRIT (RP130702)	N/A	06/2013-08/2018
PI: Tunnell				
Multiple PI	Comprehensive training program in imaging science and informatics	NIH/NIBIB (T32 EB007507)	\$767,625	08/2014-07/2019
Multiple PI: Rylander				
Co-Investigator (PI of subcontract)	BUILDing SCHOLARS	NIH/NIMHD (RL5 GM118969 research enrichment core of UL1 GM118970)	\$22,600,000 (UT sub: \$314,408)	09/2014-08/2019
Multiple PIs: Aguilera, Aley, Boland, Collins, Echegoyen, Grineski, Morera, Nazeran				
Multiple PI: Markey	3-D modeling-based decision support for optimizing quality of life following breast reconstruction	NIH/NCI (R01 CA203984)	\$3,335,835 (UT less subs: \$1,407,242)	03/2016-02/2021
Multiple PIs: Merchant, Reece				
Co-PI	REU Site: BME Community of Undergraduate Research Scholars for Cancer (BME CUREs Cancer)	NSF (1757885)	\$397,808	06/2018-05/2021
Co-PI: Suggs				

POSTDOCTORAL SUPERVISIONS COMPLETED:

Hamed Khatam (co-supervised with Ravi-Chandar)
 Sheng-Cheng (Hans) Huang
 Amir Shahmoradi (co-supervised with Dula)
 Mazen Diab (co-supervised with Ravi-Chandar)
 Pulak Goswani (co-supervised with Dula)

PH.D. SUPERVISIONS COMPLETED:

Sampat, Mehul	Evidence-based detection of spiculated lesions on mammography	2006	Biomedical Engineering	The University of Texas at Austin
Co-supervisor: Bovik				

Shin, Hyunjin	Algorithms for biomarker identification utilizing MALDI TOF mass spectrometry	2006	Electrical & Computer Engineering	The University of Texas at Austin
	Co-supervisor: Valvano			
Park, Sun Young	A study on diagnostic image analysis for the detection of precancerous lesions using multi-spectral digital images	2007	Biomedical Engineering	The University of Texas at Austin
	Co-supervisor: Richards-Kortum			
Kim, Min Soon	Objective assessment of aesthetic outcomes of breast cancer treatment: quantifying aesthetic factors after breast reconstruction	2007	Biomedical Engineering	The University of Texas at Austin
Gupta (De Mello), Shalini	Novel algorithms for 3D human face recognition Co-supervisor: Bovik	2008	Electrical & Computer Engineering	The University of Texas at Austin
Kan, Chih-Wen (Wendy)	Optical reflectance spectroscopy for cancer diagnosis : analysis and modeling Co-supervisor: Sokolov	2010	Biomedical Engineering	The University of Texas at Austin
Wang, Daifeng	System identification of dynamic patterns of genome-wide gene expression Co-supervisor: Arapostathis	2011	Electrical & Computer Engineering	The University of Texas at Austin
Liu, Shuang	Thickness, phase retardation, birefringence, and reflectance of the retinal nerve fiber layer: implications for glaucoma diagnosis Co-supervisor: Rylander	2012	Electrical & Computer Engineering	The University of Texas at Austin
Muralidhar (Sakleshpur), Gautam	Computer-aided analysis and interpretation of breast imaging data Co-supervisor: Bovik	2012	Biomedical Engineering	The University of Texas at Austin
Sun, Clement	Shared decision-making about breast reconstruction : a decision analysis approach Co-supervisor: Reece	2013	Biomedical Engineering	The University of Texas at Austin
Lee, Juhun (Ju Hun)	Quantitative analysis of facial reconstructive surgery : facial morphology and expression Co-supervisor: Bovik	2014	Electrical & Computer Engineering	The University of Texas at Austin
Hennessy, Richard	Depth resolved diffuse reflectance spectroscopy Co-supervisor: Tunnell	2015	Biomedical Engineering	The University of Texas at Austin

Verma, Nishant	Biomarker for tracking progression of Alzheimer's disease in clinical trials	2015	Biomedical Engineering	The University of Texas at Austin
Wen, Gezheng	Model observer for optimizing digital breast tomosynthesis for detection of multifocal and multicentric breast cancer	2017	Electrical & Computer Engineering	The University of Texas at Austin

M.S. SUPERVISIONS COMPLETED:

Gupta (De Mello), Shalini	Combining multiple mammographic views for computer aided diagnosis Co-supervisor: Ghosh	2004	Electrical & Computer Engineering	The University of Texas at Austin
Fischer, Ernest	Identification of transcription factor activation from time-series microarrays	2006	Biomedical Engineering	The University of Texas at Austin
Borgaonkar, Sanket	Investigation of methods for biomarker identification from high-throughput biological data	2008	Biomedical Engineering	The University of Texas at Austin
Dabeer (Kotasthane), Mugdha	Toward decision support for breast reconstruction: automated calculation of symmetry measure on clinical photographs	2008	Biomedical Engineering	The University of Texas at Austin
Kumaraswamy, Nishamathi	Characterization of biaxial mechanical properties of rubber and skin Co-supervisor: Ravi-Chandar	2014	Biomedical Engineering	The University of Texas at Austin

UNDERGRADUATE RESEARCH SUPERVISIONS COMPLETED:

Ali, Kamil	Das, Nirav	Hurtubise, Dane
An, Nick	Datta, Anjali	Jew, Chris
Anthony, Jonathan	De La Garza Evia, Jose	Jewett, Eloise
Araya, Mussie	Dittakavi, Tejasree	Jiang, Bryan
Bauer, Nicole	Durgam, Aditya	Joseph, Maria
Bedard, Noah	Durgam, Preethi	Joy, Elizabeth
Bi, Sarah	Fan, Kaili	Jung, Sarah
Bish, Sheldon	Friedman, Michael	Jwair, Hasanain (AJ)
Blinka, Ellen	Garay, Yahir	Kannan, Aravind
Byrne, James	George, Jacob	Kerdlappol, Nathan
Cagnairt, Pierre-Etienne	Giese, David	Kiboko, Mambwe (Stephanie)
Callado, Enrique	Gloria, Mary	Kim, Edward
Chang, Ho-chang "Eric"	Gudavalli, Sahithy	Kim, Iris
Chen, Si	Gudavalli, Spoorthy	Komminei, Aneesha
Chen, Stephen	Halekote, Eshan	Ku, Brian
Chow, Jacqueline	Han, Wei	Kuang, Rick
Chu, Jevon	Hays, Seth	Kuo, Helen
Chyn, Priscilla	Ho, Derek	Kyrish, Matt
Cook, Margaret "Maggie"	Hocker, Harrison	Lee, Andy
Coyne, Andrew	Hu, Alex	Lee, Eyvonne

Lee, Haoyu	Ngo, Albert	Shrestha, Yujan (Alex)
Lee, Jeanette	Nguyen, Ursula	Slininger, Drew
Lee, Sara	Nuthalapati, Sruti	Smith, Amy
Lee, Seuyeon	Patel, Amit	Snyder, Katie
Leung, Shi Yin "Gary"	Payne, Michael	Soberon, Nick
Lewis, Tiara	Pecen, Furkan	Solis, Javier
Li, Luben	Peng, Josh	Stokes, Patrick
Lin, Ming	Pham, Bryan	Sung, Kyle
Lin, Tiffany	Pham, Nhi	Szeto, Catherine
Lo, Justin	Printy, Blake	Tan, Gabriela
Lohia, Saumya	Rahman, Shoaib	Tan, Youri
Lorenzen, Kurt	Raina, Abhay "Abe"	Thongkham, Charles
Lu, Charlyn	Rais, Sheliz	Tian, Chao (David)
Lu, Kevin	Ranmuthu, Shalini	Tom, Rebecca
Lu, Wei	Rath, Nick	Tsang, Brian
Ma, Steven	Renken, Lindsey	Udpa, Nitin
Maity, Sharmistha	Reyes, Peter	Wang, Allen
Mantravadi, Suhrid	Rodney, Bill	Wang, Yuhling
Margolis, Michael	Rodriguez-Nino, Brenda	Wang, Frank
Morais, Daelon	Rodriguez, Elizabeth	Yallapalli, Ragini
Naqvi, Ali	Ruiz, Eduardo Saul	Yang, Sam
Miranda, Alfredo	Sachdev, Koushalya "Koshilia"	Yang, Tony
Mohanty, Sameet	Said-Alaoui, Abderrahman	Yazdani, Sima
Mutlu, Miray	Salazar, James	Zaharan, Alex
Nandipati, Sai	Sheu, Bryan	Zhang, David

PH.D. IN PROGRESS:

A. Students admitted to candidacy

Krista Nicklaus (BME)
Yao Zhang (BME)

B. Post M.S. students preparing to take Ph.D. proposal exam

Sungsoo Kim (ECE)
Andrew Stier (ECE)

M.S. IN PROGRESS:

N/A

VITA:

Dr. Mia K. Markey is a Professor of Biomedical Engineering, Professor of Oncology (by courtesy), and Engineering Foundation Endowed Faculty Fellow in Engineering at The University of Texas at Austin. In addition, she is an Adjunct Professor of Imaging Physics at The University of Texas MD Anderson Cancer Center. Dr. Markey is a 1994 graduate of the Illinois Mathematics and Science Academy and has a B.S. in computational biology (Carnegie Mellon, 1998). Dr. Markey earned her Ph.D. in biomedical engineering (2002), along with a certificate in bioinformatics, from Duke University.

The mission of Dr. Markey's Biomedical Informatics Lab is to develop decision support systems for clinical decision making and scientific discovery. She seeks opportunities to advance health-related quality of life and health

equity. For example, Prof. Markey leads a collaborative, multi-institutional team that is designing a decision support system to help breast cancer survivors understand their likely appearance changes following breast reconstruction and, therefore, enable them to choose a reconstruction strategy that will lead to maximal psychosocial adjustment.

Dr. Markey has been recognized for excellence in research and teaching with awards from organizations such as the American Medical Informatics Association, the American Society for Engineering Education, the American Cancer Society, and the Society for Women's Health Research. She is a Fellow of both the American Association for the Advancement of Science (AAAS) and American Institute for Medical and Biological Engineering (AIMBE), and is a Senior Member of both the IEEE and the SPIE. Dr. Markey is the editor of Physics of Mammographic Imaging (Taylor and Francis, 2012).