

Curriculum Vitae

Scott T. Doyle

Assistant Professor of Pathology & Anatomical Sciences

11/15/2019

Work Address

University at Buffalo
Jacobs School of Medicine & Biomedical Sciences
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Home Address

178 Countryside Lane
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Education

Degrees

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| 2011 | Ph.D. , Biomedical Engineering, " <i>Computerized Detection, Segmentation, and Classification of Digital Pathology: Case Study in Prostate Cancer</i> ", Rutgers University, The State University of New Jersey
Advisor: Anant Madabhushi |
| 2006 | B.S. , Biomedical Engineering, " <i>Computer-Aided Diagnosis of Prostatic Adenocarcinoma</i> ", Rutgers University, The State University of New Jersey
Advisor: Anant Madabhushi |

Continuing Professional Development

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| June 5, 2018 | Machine Learning with TensorFlow on Google Cloud Platform
<i>Coursera Online Specialization</i> |
| May 16-17, 2016 | R Bioconductor Training Sessions
<i>Department of Biostatistics and Bioinformatics, Roswell Park Cancer Institute</i> |
| Oct. 29-30, 2014 | hES Stem Cell Culture Training Program
<i>WNYSTEM Stem Cell Culture, Banking, and Training Facility</i> |
| Sept. 4-14, 2014 | Optical Microscopy & Imaging in the Biomedical Sciences
<i>Marine Biological Laboratory, Woods Hole, MA</i> |

Professional Appointments

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| 2019 – Present | Assistant Professor of Pathology & Anatomical Sciences, UB, Buffalo, NY |
| 2017 – 2018 | Imaging Scientist, Veterans Affairs Hospital, Buffalo, NY |
| 2017 – 2019 | Research Assistant Professor of Pathology & Anatomical Sciences, UB, Buffalo, NY |
| 2014 – 2016 | Assistant Professor of Pathology & Anatomical Sciences, UB, Buffalo, NY |

2011 – 2014 Director of Research, Ibris, Inc., South Brunswick, NJ

Professional Society Memberships

2014 – Present Society of Photonics and Imaging Engineers (SPIE)

Invited Presentations

International

2019 Computational Pathology Symposium, 31st European Congress of Pathology, *Building an AI School for Pathology: Workflow for Human-AI Interfaces*, Nice, France

National

2019 GlomCon 2019, American Society of Nephrology, *Deep Learning Image Basics*, Webinar

2019 ASN Kidney Week 2019, American Society of Nephrology, *Biomedical Imaging Ontologies to Promote Interoperability of Heterogeneous Data*, Washington, D.C.

2019 HIMA Imaging Science, Pathology Informatics Summit 2019, *AI and Pathology in Training: Building and Explaining Algorithms to Medical Students*, Pittsburgh, PA

2019 Workshop, United States and Canadian Association of Pathologists, *Machine Learning for the Practicing Pathologist*, National Harbor, MD

2018 Seminar Series, Mount Sinai Hospital, *Computational Pathology for Risk Prediction*, New York, NY

2017 Seminar Series, Icahn School of Medicine, Mount Sinai, *Image Analysis, Graph Theory, and Machine Learning for 2D & 3D Modelling of Oral Cavity Cancer*, New York, NY

2014 ASIP Bioimaging Workshop, American Society for Investigative Pathology, *HistoCAD in the Prediction of Outcomes*, San Antonio, TX

Regional/Local

2019 Grand Rounds, University at Buffalo, Dept. of Biomedical Informatics, *Computational Pathology and Anatomy using Traditional and Deep Machine Learning Methods*

2018 Grand Rounds, University at Buffalo, Dept. of Pathology & Anatomical Sciences, *Artificial Intelligence School for Pathology: Understanding Deep and Traditional Machine Learning for Oral Cavity Cancer Risk Prediction*

Service to the Profession

2016 - Present Session Chair, Program Committee Member at SPIE Medical Imaging

Responsible for running speaker sessions, reviewing papers, and contributing to the conference direction for SPIE Medical Imaging: Digital Pathology Sessions

- 2010 - 2010 Session Chair, Committee Member, Pattern Recognition in Bioinformatics (PRIB)
Responsible for reviewing papers and moderating the Bioimaging Session at Pattern Recognition in Bioinformatics
- 2009 - 2015 Panelist at the Histology Image Analysis (HIMA) Conference
Responsible for presenting research and fielding community questions during panel discussion and Q&A
- 2007 - Present Peer Reviewer for Journals
Human Pathology, Medical Image Analysis, Medical Physics, Transactions on Biomedical Engineering, BioMedCentral (BMC) Cancer, BMC Bioinformatics, Society of Photonics and Imaging Engineers (SPIE), Medical Image Computing and Computer-Assisted Intervention, International Symposium on Biomedical Imaging (ISBI)

Service to the Public

- 2018 – Present March for Babies, Volunteer
Raised over \$1,000 for March of Dimes in Buffalo, NY; participated in the "March for Babies" event

Service to the University

- 2019 – Present Mentor, McNair Scholarship Program, University at Buffalo
 2018 – Present RIS2E Faculty, Structural Sciences Learning Center (SSLC), University at Buffalo
 2016 – Present Mentor, Collegiate Science and Technology Entry Program (CSTEP), University at Buffalo

Service to the School

- 2019 Junior Faculty LCME Group
Prepared for and participated in the LCME Accreditation Site Visit; responsible for providing junior faculty input on medical school curriculum, education, and environment
- 2018 – 2019 Curriculum Steering Committee Member (PPBS)
Committee Member, Served as departmental representative from Pathology & Anatomical Sciences for the Ph.D. Program in Biomedical Sciences; responsible for suggesting curriculum changes to the PPBS program as mandated by external reviewers.
- 2016, 2019 Graduate Admissions Committee Member (PPBS)
Committee Member, Served as departmental representative from Pathology & Anatomical Sciences for the Ph.D. Program in Biomedical Sciences; responsible for reviewing and leading discussions on applicants to the PPBS program.
- 2017-2019 JSMBS Research Strategic Planning Committee

Responsible for attending and contributing to the JSMBs strategic planning meetings for the direction of the school's basic science policies and focus; also responsible for advertising the efforts of the strategic planning committee

Service to the Department

2016 - Present	Graduate Admissions Committee Member (Pathology & Anatomical Sciences) <i>Responsible for reviewing, scoring, and interviewing applicants to the Department of Pathology & Anatomical Sciences.</i>
2016 - Present	Faculty Recruitment Committee Member (Pathology & Anatomical Sciences) <i>Responsible for reviewing, discussing, and interviewing candidates for the PAS junior faculty hires.</i>
2016 - 2017	Website Transition Committee Member (Pathology & Anatomical Sciences) <i>Responsible for working with PAS administration to ensure that the departmental website is transitioned and maintained to new JSMBs formatting.</i>
2016 - Present	Faculty Recruitment Committee Member (Biomedical Engineering) <i>Responsible for reviewing, discussing, and interviewing candidates for BME junior faculty positions.</i>
2015 - Present	Graduate Program Steering & Executive Committee Member (Pathology & Anatomical Sciences) <i>Responsible for discussing and voting on matters concerning the governance of the graduate program. Also responsible for shaping the department vision for the future.</i>

Courses Taught & Other Educational Activities

Spring 2015 – Present	BE400 Special Topics: Pattern Classification for Biomedical Problems <i>3 Credit Hours, 40 Contact hours, Undergraduate, Enrollment: 12</i> Course Director: <i>Designed curriculum, assignments, and projects; Developed and delivered lecture material; Graded assignments, projects, and student presentations</i>
Spring 2015 – Present	BE500 Special Topics: Pattern Classification for Biomedical Problems <i>3 Credit Hours, 40 Contact hours, Graduate, Enrollment: 12</i> Course Director: <i>Designed curriculum, assignments, and projects; Developed and delivered lecture material; Graded assignments, projects, and student presentations</i>
Fall 2016	NRS524/PAS591: Quantitative Neuroanatomy <i>3 Credit Hours, Contact 1.5 hours, Graduate, Enrollment: 15</i> Guest Lecturer: <i>Design and give a topic lecture on computational approaches to image data analysis</i>
Spring 2016	BMI502: Biomedical Informatics Introduction <i>3 Credit Hours, Contact 1.5 hours, Graduate, Enrollment: 10</i> Guest Lecturer: <i>Design and give a topic lecture on computational pathology</i>
Spring 2015	Medical Scientist Training Program (MSTP)

Contact 1.5 hours, Graduate, Enrollment: 22

Seminar Lecturer: Introduction to computational pathology for med / Ph.D. students

Research Supervision

Research Advisor to Graduate Students – Current

08/2017	Steven Lewis, Doctor of Philosophy (PhD) <i>Thesis: 3D Modeling of Whole-Body Cadaver CT Scans: Segmentation, Modeling, and Visualization</i>
08/2017	Jonathan Folmsbee, Doctor of Philosophy (PhD) <i>Thesis: Segmentation, Classification, and Quantification of Multi-Modal Digitized Pathology: Applications to Oral Cavity Cancers</i>
05/2019	Dhadma Balachandran, Master of Science (MS, Thesis) <i>Thesis: Predicting Recurrence and Occult Metastasis of Oral Cavity Cancer via Computational Pathology</i>
05/2019	Pratik Pravin Kubal, Master of Science (Summer Independent Project) <i>Project: Generative Adversarial Networks for Super-Resolution in Computational Pathology</i>
05/2018	Chen Yu Sun, Master of Science (MS, Thesis) <i>Thesis: Multi-modal Computational Pathology for Colorectal Cancers: Investigating Microbiome Pressures in Metastasis</i>

Research Advisor to Graduate Students – Completed

05/2018 – 05/2019	Shahrukh Husain, Master of Science (MS, Project) <i>Project: Cyber-infrastructure Framework for Large-scale Medical Image Storage, Processing, and Computation</i>
05/2018 – 05/2019	Akshita Gupta, Master of Science (MS, Project) <i>Project: Defining a Structural Language for Computational Pathology</i>
08/2017 (Left Program)	Lauren Boehnke, Doctor of Philosophy (PhD) <i>Thesis: Quantification of Oral Cavity Cancers to Improve Quantitative Risk Score for Low-Stage Patients</i>
05/2017 - 02/2018	Ryan Therrian, Master of Science (MS, Thesis) <i>Thesis: Data-Driven Design of Deep Networks for Biomedical Image Analysis and Classification</i>
01/2016 - 05/2017	Snehal Salunke, Master of Science (MS, Thesis) <i>Thesis: 3D Modeling of Microvessel Connections between Vagina and Bladder: Serial Histology Reconstruction</i>
01/2015 - 05/2016	Kritika Lakhotia, Master of Science (MS, Thesis)

*Thesis: Visualization and Quantification of 3D Tumor-Host Interface Architecture
Reconstructed from Digital Histopathology Slides*

Fellows / Trainees

06/2018 – Present Doctor of Medicine (MD), Leah Militello (T32)
Thesis: Quantification and Analysis of Tall Cell Variants of Thyroid Cancer

Undergraduate Students – Current

2019 – Present Maitri Manish Parsana
Project: Open-Source Pipeline for Human-in-the-Loop Annotation and Feedback for Training AI in Computational Pathology

2019 – Present Chimaobi Ezeilo
Project: Developing Quantitative Analysis Pipelines for Immunofluorescent Microscopy using CellProfiler

2018 – Present Winston Mills
Project: Building a Web Interface for Whole Slide Imaging Database Management

2018 – Present Gouthamrajan Nadarajan
Project: Multiplex Staining for Chemically-annotated Ground Truth Datasets in Computational Pathology

2016 – Present Starr Johnson
Research Project: Registration of Large Digitized Serial Histology Stacks for 3D Anatomy Quantification: Approaches and Challenges

PhD Program in Biomedical Sciences (PPBS) Lab Rotations

2016-2017 Paige Daniels, William Mangione

Clinical / Professional Research Rotations – Medical Students

2015 – Present Alexandra Marasco
2015 Elliot Yu

Dissertation Committees (Current)

2015-Present Brandon Ginley (PhD, Pathology and Anatomical Sciences)
Brendon Lutnik (PhD, Pathology and Anatomical Sciences)
Darshana Govind (PhD, Pathology and Anatomical Sciences)
Brandon Decker (PhD, Pathology and Anatomical Sciences)
William Mangione (PhD, Biomedical Informatics)
Ryan Rava (PhD, Biomedical Engineering)
Mohammad Mahdi Shiraz Bhurwani (MS, Biomedical Engineering)

Dissertation Committees (Completed)

2018	Joseph Costa (PhD, Pathology and Anatomical Sciences)
2018	Seerat Elahi (PhD, Pathology and Anatomical Sciences)
2017	Courtney Benson (PhD, Pathology and Anatomical Sciences)
2016	Sridhar Narla (PhD, Pathology and Anatomical Sciences)

Grant & Fellowship Support

Active

05/2017 - 05/2019	Principal Investigator (5%) <i>Integration of Physical and Virtual Cadavers in a Hybrid Gross Anatomy Curriculum</i> Center for Educational Innovation, University at Buffalo Total Costs: \$10,000
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Complete

09/2011 - 08/2012	Co-Investigator (100%) <i>Decision Support System for Predicting Outcome of ER+ Breast Cancers</i> National Institutes of Health Total Costs: \$179,835
09/2007 - 05/2010	Principal Investigator (100%) <i>Accurate and Reproducible Computerized Detection and Grading of Prostate Cancer from Histopathology</i> Department of Defense \$92,499

Under Review

04/2020 - 03/2024	Principal Investigator (18%) <i>A Quantitative Risk Model for Predicting Outcome and Identifying Structural Biomarkers of Treatment Targets in Oral Cancer on a Large Multi-Center Patient Cohort</i> National Institutes of Health (NIDCR) Total Costs: \$2,003,024.00 (Direct Costs: \$1,250,000.00)
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Publications

* graduate student, ^ undergraduate student

Peer-Reviewed Journals

- Whitney J, Corredor G, Janowczyk A, Ganesan S, **Doyle ST**, Tomaszewski J, Feldman M, Gilmore H, Madabhushi A. Quantitative nuclear histomorphometry predicts oncotype DX risk categories for early stage ER+ breast cancer. *BMC Cancer*. 18(1):610-610, 2018
Role: Collected and annotated data; designed features and extraction methodology

2. Gurcan, MN, Tomaszewski JE, Overton, JA, **Doyle ST**, Ruttenberg, A, Smith, B. Developing the Quantitative Histopathology Image Ontology (QHIO): A Case study using the hot spot detection problem. *J. Biomed Inform.* 66:129-135, 2016
Role: Developed ontology requirements and example cases; helped edit the paper
3. Janowczyk A, **Doyle ST**, Gilmore H, Madabhushi A. A resolution adaptive deep hierarchical (RADHical) learning scheme applied to nuclear segmentation of digital pathology images. *Comput Methods Biomech Biomed Eng Imaging Vis.* 6(3):270-276, 2016
Role: Collected and annotated data; designed features and extraction methodology
4. Sridhar A, **Doyle ST**, Madabhushi A. Content-based image retrieval of digitized histopathology in boosted spectrally embedded spaces. *J Pathol Inform.* 6:41-41, 2015
Role: Supervised experimental design and results; supervised paper writing (edits and direction)
5. Smith B., Arabandi S., Brochhasen M., Calhoun M., Ciccarese P., **Doyle ST**, Gibaud B., Goldberg I., Kahn CE Jr., Overton J., Tomaszewski JE, Gurcan M.. Biomedical imaging ontologies: A summary and proposal for future work. *J Pathol Inform.* 23(6:37):2153-3539, 2015
Role: Supervised experimental design and results; supervised paper writing (edits and direction)

Journal Articles – Prior to UB

1. **Doyle ST**, Feldman MD, Shih N, Tomaszewski JE, Madabhushi A. Cascaded discrimination of normal, abnormal, and confounder classes in histopathology: Gleason grading of prostate cancer. *BMC Bioinformatics.* 13:282-297, 2012
2. **Doyle ST**, Feldman MD, Tomaszewski JE, Madabhushi A. A boosted Bayesian multiresolution classifier for prostate cancer detection from digitized needle biopsies. *IEEE Transactions on Biomedical Engineering.* 59(5):1205-1218, 2012
3. **Doyle ST**, Monaco JP, Feldman MD, Tomaszewski JE, Madabhushi A. An Active Learning Based Classification Strategy for the Minority Class Problem: Application to Histopathology Annotation. *BMC Bioinformatics.* 12:424-438, 2011
4. Madabhushi A, Agner S, Basavanahally A, **Doyle ST**, Lee G. Computer-aided prognosis: predicting patient and disease outcome via quantitative fusion of multi-scale, multi-modal data. *Computerized Medical Imaging and Graphics.* 35(7-8):506-514, 2011
5. Madabhushi A, **Doyle ST**, Lee G, Basavanahally A, Monaco J, Masters S, Tomaszewski JE, Feldman M. Integrated diagnostics: a conceptual framework with examples. *Clinical Chemistry and Laboratory Medicine.* 48(7):989-998, 2010
6. Alexe G, Monaco J, **Doyle ST**, Basavanahally A, Reddy A, Seiler M, Ganesan S, Bhanot G, Madabhushi A. Towards improved cancer diagnosis and prognosis using analysis of gene expression data and computer aided imaging. *Experimental Biology and Medicine.* 234(8):860-879, 2009

Meeting Abstracts

1. Nadarajan G[^], **Doyle ST**: Realistic cross-domain microscopy via conditional generative adversarial networks: converting immunofluorescence to hematoxylin and eosin. *Proc. SPIE 11320, Medical Imaging 2020: Digital Pathology, Accepted*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)

2. Lewis S*, **Doyle ST**: Quantitative evaluation of cadaveric contrast agents: identifying anatomical structures with BriteVu. *Proc. SPIE 11312, Medical Imaging 2020: Physics of Medical Imaging, Accepted*
3. Boehnke L*, Wang M, Dhorajiya P, Israel AK, Zhang L, Liu X, Brandwein-Weber MS, **Doyle ST**: Computing Dispersion - Distances of Cancer Satellites Are Associated with Disease Recurrence in Oral Cancer: Graphic-Based Analysis of Tumor Pattern of Invasion. *2019 108th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2019*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits); Designed poster construction
4. Folmsbee J*, **Doyle ST**, Liu X, Brandwein-Weber MS, Everest S, Dhorajiya P: Artificial Intelligence Generation of Multiclass Cancer Maps for Oral Cavity Cancer. *2019 108th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2019*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits); Designed poster construction
5. Nadarajan G[^], Hope T, Wang D, Cheung A, Ginty F, Yaffe MJ, **Doyle ST**: Automated multi-class ground-truth labeling of H&E images for deep learning using multiplexed fluorescence microscopy. *Proc. SPIE 10956, Medical Imaging 2019: Digital Pathology, 109560J, 2019*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)
6. Sun CY*, Liu W, **Doyle ST**: Two-tier classifier for identifying small objects in histological tissue classification: experiments with colon cancer tissue mapping. *Proc. SPIE 10956, Medical Imaging 2019: Digital Pathology, 109560F, 2019*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)
7. Folmsbee J*, Johnson S[^], Liu X, Brandwein-Weber MS, **Doyle ST**: Fragile neural networks: the importance of image standardization for deep learning in digital pathology. *Proc. SPIE 10956, Medical Imaging 2019: Digital Pathology, 1095613, 2019.*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)
8. Folmsbee J*, **Doyle ST**. Active Deep Learning: Improved Training Efficiency of Convolutional Neural Networks for Tissue Classification in Oral Cavity Cancer. *2018 15th IEEE International Symposium on Biomedical Imaging, 2018*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits); Designed poster construction
9. Lewis S*, Folmsbee J*, Inglis SD, **Doyle ST**. Building a Hybrid Gross Anatomy Curriculum: Integration of Virtual & Cadaveric Models. *The FASEB Journal. 32(1), 2018*
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)
10. Johnson S[^], Brandwein M, **Doyle ST**. Registration parameter optimization for 3D tissue modeling from resected tumors cut into serial H&E slides. *Proc. SPIE 10581, Medical Imaging 2018: Digital Pathology, 1058109, 2018*

Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits); Designed poster construction

11. Therrien R*, **Doyle ST**. Role of training data variability on classifier performance and generalizability. *Proc. SPIE 10581, Medical Imaging 2018: Digital Pathology, 105810T*, 2018
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits); Presented paper at meeting
12. Wang M, Zhang L, Tomaszewski JE, **Doyle ST**, Brandwein-Gensler MS. Matlab Silhouette Analysis of Worst Pattern of Invasion in Oral Squamous Carcinoma. *2017 106th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP)*, 2017
Role: Designed features and experiments; Supervised abstract writing (edits)
13. Zhang L, He J, Dhorajiya P, Wang M, **Doyle ST**, Brandwein-Gensler MS. Cancer Gestalt: Fused Cancer and Biomarkers in Three-Dimensions: A Novel Way to Envision Tumor Biology. *2017 Annual Meeting of the United States and Canadian Academy of Pathology (USCAP)*, 2017
Role: Designed features and experiments; Supervised abstract writing (edits)
14. Johnson S[^], Ablove TS, **Doyle ST**. Macroscopic Anatomy at Microscopic Scale: Registration of Serial Sections of Histopathology for 3D. *15th Annual Meeting of Imaging Network Ontario*, 2017
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)
15. Therrien R*, Mangione W*, **Doyle ST**. Quantitative Dataset Similarity for Fusing Multi-Institutional Image Collections. *15th Annual Meeting of Imaging Network Ontario*, 2017
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)
16. Salunke SU*, Ablove TS, Danforth TL, Tomaszewski JE, **Doyle ST**. Data-driven sampling method for building 3d anatomical models from serial histology. *Proc. SPIE 10140, Medical Imaging 2017: Digital Pathology; 1014005*, 2017
Role: Research Advisor; Guided experimental setup and results collection; Supervised paper writing (edits)
17. Hu Y, Yu E, Velosa C, Xu J, Shi Q, Tomaszewski JE, **Doyle ST**, Brandwein-Gensler MS. Three-Dimensional Histology: Spatial Envisioning of Pattern of Invasion. *2016 Annual Meeting of the United States and Canadian Academy of Pathology (USCAP)*, 2016
Role: Designed features and experiments; Supervised abstract writing (edits)
18. **Doyle ST**, Brandwein-Gensler MS, Tomaszewski JE. Quantification of tumor morphology via 3d histology: Application to oral cavity cancers. *Proc. SPIE 9791, Medical Imaging 2016: Digital Pathology; 979112*, 2016
Role: Research Director; Performed experiments and results collection; Primary paper writing

Meeting Abstracts – Prior to UB

1. **Doyle ST**, Feldman MD, Tomaszewski JE, Shih N, Madabhushi A. Cascaded multi-class pairwise classifier (CascaMPa) for normal, cancerous, and cancer confounder classes in prostate histology. *2011 8th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 2011

2. Sridhar A, **Doyle ST**, Madabhushi A. Boosted Spectral Embedding (BoSE): Applications to Content-Based Image Retrieval of Histopathology. *2011 8th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 2011
3. **Doyle ST**, Madabhushi A. Consensus of Ambiguity: Theory and Application of Active Learning for Biomedical Image Analysis. *Lecture Notes in Computer Science: Pattern Recognition in Bioinformatics*, 313-324, 2010
4. Madabhushi A, Basavanahally A, **Doyle ST**, Agner S, Lee G. Computer-Aided Prognosis: Predicting Patient and Disease Outcome Via Multi-Modal Image Analysis. *2010 7th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 2010
5. **Doyle ST**, Monaco J, Madabhushi A, Lindholm S, Ljung P, Ladic L, Tomaszewski JE, Feldman M. Evaluation of effects of JPEG2000 compression on a computer-aided detection system for prostate cancer on digitized histopathology. *2010 7th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 2010
6. Basavanahally A, **Doyle ST**, Madabhushi A. Predicting Classifier Performance with a Small Training Set: Applications to Computer-Aided Diagnosis and Prognosis. *2010 7th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 2010
7. Lee G, **Doyle ST**, Monaco J, Master SR, Feldman MD, Tomaszewski JE, Madabhushi A. A Knowledge Representation Framework for Integration, Classification of Multi-Scale Imaging and Non-Imaging Data: Preliminary Results in Predicting Prostate Cancer Recurrence by Fusing Mass Spectrometry and Histology. *2009 6th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 77-80, 2009
8. Naik S, **Doyle ST**, Agner S, Madabhushi A, Feldman MD, Tomaszewski JE. Automated gland and nuclei segmentation for grading of prostate and breast cancer histopathology. *2008 5th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 284-287, 2008
9. **Doyle ST**, Agner S, Madabhushi A, Feldman MD, Tomaszewski JE. Automated grading of breast cancer histopathology using spectral clustering with textural and architectural image features. *2008 5th IEEE International Symposium on Biomedical Imaging (ISBI): From Nano to Macro*, 496-499, 2008
10. **Doyle ST**, Madabhushi A, Feldman MD, Tomaszewski JE. A boosting cascade for automated detection of prostate cancer from digitized histology. *Lecture Notes in Computer Science: MICCAI*, 4191:504-511, 2006
11. **Doyle ST**, Rodriguez C, Madabhushi A, Tomaszewski J, Feldman M. Detecting prostatic adenocarcinoma from digitized histology using a multi-scale hierarchical classification approach. *Proc. IEEE Eng. Med. Biol. Soc. (EMBS)*, 1:4759-4762, 2006