

VALEN E. JOHNSON

Education:

Ph.D.	Statistics	The University of Chicago	1989
M.A.	Applied Mathematics	University of Texas at Austin	1985
B.S.	Mathematics	Rensselaer Polytechnic Institute	1981

Positions Held:

- 2018–2019 Interim Dean, College of Science, Texas A&M University
- 2016–pres University Distinguished Professor, Texas A&M University
- 2014–2018 Head, Department of Statistics, Texas A&M University
- 2012–pres Professor, Department of Statistics, Texas A&M University
- 2011-2012 Ad Interim Division Head, Division of Quantitative Sciences
- 2011-2012 Ad Interim Chair, Department of Biostatistics, University of Texas M.D. Anderson Cancer Center
- 2007-2010 Deputy Chairman, Department of Biostatistics, University of Texas M.D. Anderson Cancer Center
- 2004-2011 Professor, Department of Biostatistics, University of Texas M.D. Anderson Cancer Center
- 2005-2011 Adjunct Professor, Department of Statistics, Rice University
- 2007-2011 Adjunct Professor, Department of Statistics, Texas A&M University
- 2002-2004 Professor, Department of Biostatistics, University of Michigan
- 2001-2002 Technical Staff Member, Los Alamos National Laboratory
- 2000-2003 Professor, Institute of Statistics and Decision Sciences, Duke University
- 1995-1999 Director of Undergraduate Studies, Institute of Statistics and Decision Sciences, Duke University
- 1993-2000 Associate Professor, Institute of Statistics and Decision Sciences, Duke University
- 1999-2002 Adjunct Professor, Department of Statistics, The University of North Carolina at Chapel Hill
- 1989-1992 Assistant Professor, Institute of Statistics and Decision Sciences
- 1988-1989 Research Assistant, Franklin Maclean Memorial Research Institute, Department of Radiology, University of Chicago
- 1981-1985 Intelligence Officer, United States Army

Major Awards and Service:

Co-Chair, Provost Search Committee, TAMU, 2016-17

Member, TAMU Institute of Data Science Formation Committee, 2016-18

Co-Chair, TAMU Institute of Data Science Education Committee, 2017-18

Member, TAMU Institute of Data Science Director Search Committee, 2017-18

Fellow, American Statistical Association

Fellow, Royal Statistical Society

Elected Member, International Statistics Institute

Co-Editor, *Bayesian Analysis*, 2010-2014.

Associate Editor, *Journal of the American Statistical Association*, 2011-present.

Member, Board of Directors, International Society for Bayesian Analysis, 2004-2007

Associate Editor, *Bayesian Analysis*, 2006-2010

Member, Clinical Review Committee, M.D. Anderson Cancer Center, 2007-2008

Associate Member, IRB, M.D. Anderson Cancer Center, 2006-2007

Faculty Senator, M.D. Anderson Cancer Center, 2005-2008

Faculty Senator, University of Michigan, 2003-2004

Chair, Lindley Award Committee, 2008

Chair or Member, Savage Thesis Award Committee, 2004-2007

Member, Lindley Award Committee, 2004-2007

Treasurer, International Society for Bayesian Analysis, 1998-2001

Associate Editor, *IEEE Transactions on Medical Imaging*, 1993-2002

Associate Book Editor, *Journal of the American Statistical Association*, 1998-2002

Associate Editor, *Journal of the American Statistical Association*, 1992-1996

President, North Carolina Chapter of the American Statistical Association, 1995

Runner-up, Francois Erbsmann Award for contributions to medical imaging, 1991

Savage Award for Outstanding Thesis in Bayesian Statistics and Econometrics, 1989

Patents:

Image Object Matching Using Core Analysis and Deformable Shape Loci, Patent Number 5,926,568, held jointly with Edward Chaney, Stephen Pizer, Alyson Wilson, Duke University and the University of North Carolina at Chapel Hill.

Methods for Estimating Probe Cell Locations in High Density Synthetic DNA Microarrays, Patent Number 6,993,173, with Harry Zuzan and Duke University.

Books:

Johnson, V.E. and Albert, J. (1999), *Ordinal Data Models*, Springer-Verlag: New York.

Johnson, V.E. (2003), *Grade Inflation: A Crisis in College Education*. Springer-Verlag, New York.

Articles in major statistical and scientific journals:

Johnson, V.E. (1992), "A Technique for Estimating Marginal Posterior Densities in Hierarchical Models Using Mixtures of Conditional Densities," *Journal of the American Statistical Association*, **87**, 852-860.

Johnson, V.E. (1994), "A Model for Segmentation and Analysis of Noisy Images," *Journal of the American Statistical Association*, **89**, 230-241.

Johnson, V.E. (1996), "Studying Convergence of Markov Chain Monte Carlo Algorithms Using Coupled Sampling Paths," *Journal of the American Statistical Association*, **91**, 154-166.

Johnson, V.E. (1996), "On Bayesian Analysis of Multirater Ordinal Data: An Application to Automated Essay Grading," *Journal of the American Statistical Association*, **91**, 42-51.

Johnson, V.E. (1998), "A Coupling-Regeneration Scheme for Diagnosing Convergence in Markov Chain Monte Carlo Algorithms," *Journal of the American Statistical Association*, **93**, 238-248.

Johnson, V.E., Deaner, R.O. and van Schaik, C.P. (2002), "Bayesian Analysis of Multi-Study Rank Data with Application to Primate Intelligence Ratings," *Journal of the American Statistical Association*, 8-17.

Johnson, V.E. (2004), "A Bayesian χ^2 Test for Goodness-of-Fit," *Annals of Statistics*, **32**, 2361-2384.

Johnson, V.E. (2005), “Bayes Factors Based on Test Statistics,” *Journal of the Royal Statistical Society, Series B*, **67**(5), 689-701.

Johnson, V.E. (2008), “A Statistical Analysis of the NIH Peer Review System,” *Proceedings of the National Academy of Sciences*, **105** (32), 11076-11080.

Hu, J. and **Johnson, V.E.** (2009), “Bayesian Model Selection Using Test Statistics,” *Journal of the Royal Statistical Society. Series B*, **71**, 143-158.

Hu, J. and **Johnson, V.E.** (2009), “Log-Linear Models for Gene Association,” *Journal of the American Statistical Association*, **104**, 597-607.

Johnson, V.E. and Rossell, D. (2010), “On the use of non-local prior densities for default Bayesian hypothesis tests,” *Journal of the Royal Statistical Society. Series B*, **72**, 143-170.

Johnson, V.E. and Rossell, D. (2012), “Bayesian Variable Selection in High-dimensional Settings,” *Journal of the American Statistical Association*, **107**, 649-660.

Johnson V.E. (2013), “Uniformly most powerful Bayesian tests,” *Annals of Statistics*, **41**, 1716-1741

Johnson, V.E. (2013), “Revised standards for statistical evidence,” *Proceedings of the National Academy of Sciences*, **110**(48), 19313-19317.

Barney B., Amici F., Aureli F., Call J. and **Johnson, V.E.** (2015), “Joint Bayesian Modeling of Binomial and Rank Data for Primate Cognition,” *Journal of the American Statistical Association*, **110**(510), 573-582.

Johnson, V.E., Payne R., Wang T., Asher A., Mandal, S. (2017), “On the Reproducibility of Psychological Science,” *Journal of the American Statistical Association*, **112**:517, 1-10.

Benjamin* D. J., Berger J. O., Johannesson* M., Nosek B. A., Wagenmakers E.-J., Berk R., Bollen K. A., Brembs B., Brown L., Camerer C., Cesarini D., Chambers C. D., Clyde M., Cook T. D., De Boeck P., Dienes Z., Dreber A., Easwaran K., Efferson C., Fehr E., Fidler F., Field A. P., Forster M., George E. I., Gonzalez R., Goodman S., Green E., Green D. P., Greenwald A., Hadfield J. D., Hedges L. V., Held L., Ho T.-H., Hoijtink H., Jones J. H., Hruschka D. J., Imai K., Imbens G., Ioannidis J. P. A., Jeon M., Kirchler M., Laibson D., List J., Little R., Lupia A., Machery E., Maxwell S. E., McCarthy M., Moore D., Morgan S. L., Munafó M., Nakagawa S., Nyhan B., Parker T. H., Pericchi L., Perugini M., Rouder J., Rousseau J., Savalei V., Schönbrodt F. D., Sellke T., Sinclair B., Tingley D., Van Zandt T., Vazire S., Watts D. J., Winship C., Wolpert R. L., Xie Y., Young C., Zinman J., & **Johnson* V. E.** (senior and corresponding* author) (2017), “Redefine Statistical Significance,” *Nature Human Behaviour*, **2**, 6-10.

Other peer-reviewed articles:

Chen, C., **Johnson, V.E.**, Wong, W.H., Hu, X., and Metz, C.E. (1990), "Bayesian Image Reconstruction in Positron Emission Tomography," *IEEE Transactions on Nuclear Science*, NS-37, 636-641.

Johnson, V.E., Wong, W.H., Hu, X., Chen, C-T., (1991), "Image Restoration Using Gibbs Priors: Boundary Modeling, Treatment of Blurring, and Selection of Hyperparameters," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **13**, 413-425.

Chen, C-T., Ouyang, X., Wong, W.H., Hu, X., **Johnson, V.E.**, Ordonoz, C.E., and Metz, C.E. (1991), "Sensor Fusion in Image Reconstruction," *IEEE Transactions in Nuclear Science*, **38**, 687-692.

Johnson, V.E., Wong, W.H., Hu, X., Chen, C-T., (1991), "Bayesian Restoration of PET Images Using Gibbs Priors," in *Information Processing and Medical Imaging XI*, 15-28, Alan R. Liss: New York.

Hu, X., **Johnson, V.E.**, Wong, W.H., Chen, C-T., (1991), "Bayesian Image Processing for Magnetic Resonance Imaging," *Magnetic Resonance Imaging*, **9**, 611-620.

Lin, W.J., Pizer, S.M., Johnson V.E., (1991), "Boundary Estimation in Ultrasound Images," in *Information Processing in Medical Imaging XII*, 285-299, Springer-Verlag: Heidelberg.

Liang, Z., Jaszczak, R., Coleman, R., **Johnson, V.E.** (1991), "Simultaneous Reconstruction, Segmentation, and Edge Enhancement of Relatively Piecewise Continuous Images with Intensity Level Information," *Medical Physics*, **18**, 394-401.

Soper, J.T., Johnson, P.L., **Johnson, V.E.**, Berchuck, A., Clarke-Pearson, D.L. (1992). "Comprehensive Restaging Laparotomy in Women with Apparent Early Ovarian Carcinoma," *Obstetrics and Gynecology*, 949-953.

Johnson, V.E., Wong, W.H., Hu, X., Chen, C.T. (1992). "Data Augmentation Schemes Applied to Image Restoration," in *Medical Images: Formation, Handling and Evaluation*, 345-360, Springer-Verlag: Berlin-Heidelberg.

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Ouyang, X., Wong, W.H., **Johnson, V.E.**, Hu, X., and Chen C.T. (1994), "Incorporation of Correlated Structural Images in PET Reconstruction," *IEEE Transactions on Medical Imaging*, **13**, 627-640.

Mirrett, P.L, Riski, J.E., Glascott, J., and **Johnson, V.E.** (1994), "Videofluoroscopic Assessment of Dysphagia in Children with Severe Spastic Cerebral Palsy," *Dysphagia*, **9**, 174-179.

Bowsher, J.E., **Johnson, V.E.**, Turkington, T.G., Jaszczak, R.J., Floyd, C.E., and Coleman, R.E (1996), "Bayesian Reconstruction and Use of Anatomical *A Priori* Information for Emission Tomography," *IEEE Transactions on Medical Imaging*, 673-686.

Wilson, A. and **Johnson, V.E.** (1996), "Models for Shape Deformation," *Bayesian Statistics 5: Proceedings of the Fifth Valencia International Meeting*, edited by J. Berger, J. Bernardo, P. Dawid, and A. Smith, 801-808, Clarendon Press: Oxford.

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Laading, J.L., McCulloch, C., **Johnson, V.E.**, Gilland, D. and Jaszczak, R.J., (1999), "A Hierarchical Feature Based Deformation Model Applied to 4D Cardiac SPECT Data," in *Lecture Notes in Computer Science: Information Processing in Medical Imaging*, 266-279, Springer-Verlag: Berlin.

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Johnson, V.E., Moosman, A. and Cotter, P. (2005), "A Hierarchical Model for Estimating the Early Reliability of Complex Systems," *IEEE Transactions on Reliability*, bf 54, 224-231.

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Guerrero, T., **Johnson, V.E.**, Hart, J., Pan, T., Khan, M., Luo, D., Liao, Z., Ajani, J., Stevens, C., Komaki, R., (2007), "Radiation Pneumonitis: Local Dose Versus Fluorodeoxyglucose Uptake Response in Irradiated Lung," *International Journal of Radiation Oncology, Biology, and Physics*, **68**, 1030-1035.

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Iyer, R.B., Balchandram, A., Bruzzi, J.F., **Johnson, V.E.**, Macapinlac, H.A., and Munden, R.F. (2007), "PET/CT and Hepatic Radiation Injury in Esophageal Cancer Patients," *Cancer Imaging*, **7**, 189-194.

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Hart, J.P, McCurdy, M.R., Ezhil, M., Wei, W., Khan, M., Luo, D., Munden, R.F., **Johnson, V.E.**, and Guerrero, T. (2008), "Radiation Pneumonitis: Correlation of Toxicity with Pulmonary Metabolic Radiation Response," *International Journal of Radiation Oncology, Biology, and Physics*, **71**, 967-971.

Johnson, V.E. (2008), "Properties of Bayes Factors Based on Test Statistics," *Scandinavian Journal of Statistics*, **35**, 354-368.

Yuan, Y. and **Johnson, V.E.** (2008) "Bayesian Hypothesis Tests Using Nonparametric Statistics," *Statistica Sinica*, **18**(3), 1185-1200.

Castillo, R., Castillo, E., Guerra, R., **Johnson, V.E.**, McPhail, T., Garg, A., Guerrero, T. (2009), "A Framework for Evaluation of Deformable Image Registration Spatial Accuracy Using Large Landmark Point Sets," *Physics, Medicine, and Biology*, 1849-1870.

Rampurwala, M., Ravoori, M., Wei W., **Johnson, V.E.**, Vikram, R., Kundra, V. (2009), "Visualization and quantification of intraperitoneal tumors by in vivo CT using the

negative contrast enhancement strategy in a mouse model of ovarian cancer,” *Translational Oncology*, **2**, 96-106.

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Banerjee, K., Chabris, C.F., **Johnson, V.E.**, Lee, J., Tsai, F., Hauser, M.D. (2009), “General Intelligence in Another Primate: Individual Differences across Cognitive Task Performance in a New World Monkey (*Saguinus oedipus*),” *PLoS ONE*, **4** (6): e5883.doi:10.1371/journal.pone.0005883.

Johnson, V.E. and Cook, J.D. (2009), “Bayesian Design of Single-Arm Phase II Clinical Trials with Continuous Monitoring,” *Clinical Trials*, **6**, 217-226.

Wang, X.S., Shi, Q., Lu, C., Basch, E.M., **Johnson, V.E.**, Mendoza, T.R., Mobley, G., Cleeland, C. (2010), “Prognostic Value of Symptom Burden for Overall Survival in Advanced Non-Small Cell Lung Cancer Patients Receiving Chemotherapy,” *Cancer*, **116**(1):137-145.

McCurdy, M., McAleer, M., Wei W., Ezhil, M., **Johnson, V.E.**, Khan, M., Baker, J., Lou, D., Ajani, J., Guerrero, T. (2010), “Induction and Concurrent Taxanes Enhances both the Pulmonary Metabolic Radiation Response and the Radiation Pneumonitis Response in Patients with Esophagus Cancer,” in *International Journal of Radiation, Oncology, Biology, and Physics*, **76**, 816-823.

Cleeland CS, Sloan JA, ASCPRO Organizing Group, (2010), “Assessing the Symptoms of Cancer Using Patient-Reported Outcomes (ASCPRO): searching for standards,” *Journal of Pain Symptom Management*, **39**(6), 1077-85.

Riegel, A., Bucci, M.C., Kara, M., Malawi, O., **Johnson, V.E.**, Moiz, A., Sun, X., Dershan, L., Chandler, A. (2010), “Target definition of moving lung tumors in positron emission tomography: Correlation of optimal activity concentration thresholds with object size, motion extent, and source-to-background ratio,” *Medical Physics*, **37**(4) 1742-1752.

Cao, J., Moosman, A., and **Johnson, V.E.** (2010), “A Bayesian Chi-Squared Goodness of Fit Test for Censored Data Models,” *Biometrics*, **66**, 426-434.

Wang, X.S., Cleeland, C.S., Mendoza, T.R., Yun, Y.H., Wang, Y., Okuyama, T., **Johnson, V.E.** (2010), “Impact of Cultural and Linguistic Factors on Symptom Reporting by Patients with Cancer,” *Journal of the National Cancer Institute*, **102**, 732-738.

Johnson, V.E. (2010), “Bayesian Aggregation Error?,” *International Journal of Safety and Reliability*, **4**, 359-365.

Reese, C.S, Wilson, A.G., Guo, J., Hamada, M., and **Johnson, V.E.**, (2011), “A Bayesian Model for Integrating Multiple Sources of Lifetime Information in System-Reliability Assessments,” *Journal of Quality Technology*, **43**, 127-141.

Chandler, A., Wei, W., Herron, D.H., Anderson, E.F., **Johnson, V.E.**, Ng, C. (2011) “Semiautomated motion correction of lung tumors in breathhold CT, *Academic Radiology*, **18**(3), 286-293.

Kaur, H., Matin, S.F., Javadi, S., **Johnson, V.E.**, Choi, H., Sandler, C. and Ahar, K., (2011), “Chyluria after radiofrequency ablation of renal tumors,” *Journal of Vascular Interventional Radiology*, **22**, 924-927.

Wright, K.C., Ravoori, M.K., Dixon, K., Han, L., Singh, S., Liu, P., Gupta, S., **Johnson, V.E.**, Kan, Z., Kundra, V. (2011), “Perfusion CT Assessment of Tissue Hemodynamics Following Hepatic Arterial Infusion of Escalating Doses of Angiotensin-II in a Rabbit Liver Tumor Model,” *Radiology*, **260**, 718-726.

Vu, T. Guha, N.T., Harrell, R., Ahmed, S., Kumar, A.J., **Johnson, V.E.**, Perrier, N., Hamberg, L.M., Hunter, G.J., Schellingerhout, D., (2011), “Imaging Characteristics of Hyperfunctioning Parathyroid Adenomas Using Multiphase Multidetector Computed Tomography,” *Journal of Computer Assisted Tomography*, **35**(5), 560-567.

Yuan, Y. and **Johnson, V.E.** (2012), “Goodness-of-fit diagnostics for Bayesian hierarchical models,” *Biometrics*, **68**, 156-164.

Tan, C.H., Wei, W., **Johnson, V.E.**, Kundra, V. (2012), “Diffusion-weighted MRI in detection of prostate cancer: meta-analysis,” *American Journal of Roentgenology*, **4**, 822-829.

Bronstein, Y., Ng, C.S., Rohren, E., Ross, M.I., Lee, J.E., Cormier, J., **Johnson, V.E.**, Hwu, W. (2012), “PET/CT in the Management of Patients with Stage IIIC and IV Metastatic Melanoma Considered Candidates for Surgery: Evaluation of the Additive Value after Conventional Imaging,” *Nuclear Medicine and Molecular Imaging*, 902-908.

Amici, F., Barney, B., **Johnson, V.E.**, Cail, J., and Aurelli, F. (2012), “A Modular Mind? A Test Using Individual Data from Seven Primate Species,” *PLoS ONE*, e51918. doi:10.1371/journal.pone.0051918.

Radvanyi, L.G., Bernatchez, C., Zhang, M., Fox, P.S., Miller, P., Chacon, J., Wu, R., Lizee, G., Mahoney, S., Alvarado, G., Glass, M., **Johnson, V.E.**, McMannis, J.D., Shpall, E., Prieto, V., Papadopoulos, N., Kim, K., Homsy, J., Bedikian, A., Hwu, W.J., Patel, S., Ross, M.I., Lee, J.E., Gershenwald, J.E., Lucci, A., Royal, R., Cormier, J.N., Davies, M.A., Mansaray, R., Fulbright, O.J., Toth, C., Ramachandran, R., Wardell, S., Gonzalez, A., Hwu, P. (2012), “Specific lymphocyte subsets predict response to adoptive cell therapy using expanded autologous tumor-infiltrating lymphocytes in metastatic melanoma patients,” *Clinical Cancer Research*, **18**(24), 6758-70.

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Cai, C., Yuan, Y., and **Johnson, V.E.** (2013), “Bayesian Adaptive Phase II Screening Design for Combination Trials,” *Clinical Trials*, **10**, 353-362.

Rossell, D., Telesca, D., **Johnson, V.E.** (2013), “High-Dimensional Bayesian Classifiers Using Non-Local Priors,” in *Statistical Models for Data Analysis XV*, eds. P. Guidici, S. Ingrassia, and M. Vichy, Springer.

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“Why Colleges Shower Their Students with A’s,” p.16, Brent Staples; Editorial section, *New York Times*, March 8, 1998.

“Is College Too Easy?” guest interviewee, *National Public Radio: Talk of the Nation*, December 11, 2001.

“An A is an A is an A...,” invited editorial, *New York Times*, April 14, 2002.

“Easy grading makes ‘deep learning’ more important,” John Merrow; Editorial section, *USA Today*, February 4, 2003.

“Tackling peer review bias,” A. Gawrylewski, *The Scientist*, July 28, 2008.

“Stringent statistics make better science,” C. Pain; Science section and interview, *Australian Broadcasting Corporation*, November 12, 2013.

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Nikooienejad, A., Wang, E. and **Johnson, V.E.**, (2018), “Bayesian variable selection in high dimensional survival time cancer genomic datasets using nonlocal priors,” in submission.

Grants and Contracts:

Principal Investigator, NIH FIRST Award “Reconstruction and Analysis of Emission Computed Tomography Data,” 1992-1997.

Collaborating Investigator, NSF grant “Bayesian Computations” (Principal Investigator: Mike West, Duke University), 1992-1995.

Collaborating Investigator, Whittaker Foundation grant “Bayesian Reconstruction of Emission Tomography” (Principal Investigator: James Bowsher, Duke University Medical Center), 1994-1997.

Principal Investigator, NSF grant “Scientific Computing Research Environment for Mathematical Sciences,” 1995.

Collaborating Investigator, NIH grant “Improvement in Pulmonary Nodule Detection by Bayesian Image Processing” (Principal Investigator: Carey Floyd, Duke University Medical Center), 1995-1998.

Collaborating Investigator, NIH grant “In Vivo Radionuclide Quantitation Using Emission CT” (Principal Investigator: Ron Jaszczak, Duke University Medical Center), 1997-1999.

Collaborating Investigator, NIH grant “Atlas-Based Segmentation for Radiotherapy Planning” (Principal Investigator: Stephen Pizer, Department of Computer Science, University of North Carolina at Chapel Hill), 1998-2000.

Principal Investigator, NSF grant “Discrete Models for High-Level Image Analysis,” 1998-2001.

Principal Investigator, Los Alamos National Laboratory Contract “Development of Bayesian Methodology to Address General Bounding Problems,” 2000.

Collaborating Investigator (Biostatistics Core Director), NIH grant “Automatic 3D Registration for Enhanced Cancer Management Statistics Core,” (Principal Investigator: Charles Meyer, UM Department of Radiology), 2002-2007.

Collaborating Investigator, NIH Grant “Vaccine Trials Using Individual and Ecological Units,” (Principal Investigator: James Koopman, UM Department of Epidemiology), 2002-2003.

Principal Investigator, Los Alamos National Laboratory Contract in response to proposal 58947-SOL-02, “Bayesian Methodology for Reliability Analyses,” 2002.

Principal Investigator, NIH Center for Scientific Review Intergovernment Personnel Agreement “Analysis of Scientific Review Group Ratings,” 2005-2006.

Collaborating Investigator, “Experimental Cancer Imaging Research Program,” (Principal Investigator: John D. Hazle), NIH U24 proposal, 2007-2011.

Collaborating Investigator, “Pain and Symptoms for Cancer: Assessment and Treatment,” (Principal Investigator: Charles Cleeland), NIH R01, 2005-2008.

Collaborating Investigator, “Biostatistical Resource of Core Grant,” (Principal Investigator: John Mendelsohn), NIH P30, 2005-2008.

Collaborating Investigator, “Perfluorocarbon Filled Endorectal Magnetic Resonance Spectroscopic Imaging of Prostate Carcinoma,” (Principal Investigator: Haesun Choi), DOD Award, 2007-2009.

Collaborating Investigator, “RADCCORE Pilot Project Grant,” (Principal Investigator: Thomas Guerrero), 2007-2008.

Collaborating Investigator, “A Small Peptide ICAM-1 Imaging Agent for Molecular Guided Radiotherapy of Lung Cancer,” ((Principal Investigator: Thomas Guerrero), NIH R21.

Collaborating Investigator, “Image-Guided Delivery and Image-Guided Evaluation of Target and Non-Target Tissue,” (Principal Investigator: Vikas Kundra), NIH R21, pending.

Collaborating Investigator, “Reducing the Symptom Burden Produced by Aggressive Cancer Therapies,” Principal Investigator: Charles Cleeland), NIH R01, 2008-2011.

Biostatistics Core Director, “Symptom Mechanisms of Multiple Myeloma and Its Therapy,” (Principal Investigator: Charles Cleeland), NIH P01, 2008-2013.

Principal Investigator, “Consistent Model Selection in the $p \gg n$ Setting,” NIH R01, 2011-2020.

Doctoral Dissertations Supervised:

Alyson Wilson, “Statistical Models for Shapes and Deformations,” 1995. This thesis won the Savage Award for the best thesis in Bayesian statistics and econometrics.

Colin McCulloch, “High-level Image Understanding Through Bayesian Hierarchical Models,” 1998. This thesis is one of four finalists for the 1999 Savage Award.

Jacob Laading, “Practical Methodology for Inclusion of Modality-Specific Modifications in a Hierarchical Bayesian Deformation Model,” 1999.

Stephen Ponisciak, “Bayesian Analysis of Teacher Effectiveness,” 2002.

Sining Chen, “On Automated Bayesian Image Analysis,” 2002.

Adarsh Joshi, “Bayesian Model Selection for High-Dimensional High-Throughput Data,” Department of Statistics, Texas A&M University, 2010 (while a faculty member at M.D. Anderson Cancer Center).

Brad Barney, “Bayesian Joint Modeling of Binomial and Rank Response Data,” Department of Statistics, Texas A&M University, 2011 (while a faculty member at M.D. Anderson Cancer Center).

Scott Goddard, “Restricted Most Powerful Bayesian Tests,” Department of Statistics, Texas A&M University, 2015.

Minsuk Shin, “Priors for Bayesian Shrinkage and High-dimensional Model Selection,” 2017

Amir Nikooienejad, “Bayesian Variable Selection in High Dimensional Genomic Studies Using Non-Local Priors,” 2017.

Master’s and Doctoral Advisory Committees:

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