Brian J. Smith, PhD

College of Public Health Curriculum Vitae

Department of Biostatistics
brian-j-smith@uiowa.edu

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Educational and Professional History

Degrees Earned

1993	BA in Mathematics, Saint Louis University
1995	MS in Mathematical Statistics, University of Texas at Austin, Austin, Texas
2001	PhD in Biostatistics, University of Iowa, Iowa City, Iowa

Employment History

1993 - 1995	Research Scientist, University of Texas at Austin, Austin, Texas
2001 - 2002	Visiting Assistant Professor, Department of Biostatistics, College of Public Health, University of Iowa, Iowa City, Iowa
2005 - 2006	Co-Director, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, Iowa City, Iowa
2002 - 2008	Assistant Professor, Department of Biostatistics, College of Public Health, University of Iowa, Iowa City, Iowa
2008 - 2017	Associate Professor, Department of Biostatistics, College of Public Health, University of Iowa, Iowa City, Iowa
2001 - Present	Member, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, Iowa City, Iowa
2004 - Present	Member, Cancer Epidemiology and Population Science Program, Holden Comprehensive Cancer Center, University of Iowa, Iowa City, Iowa
2006 - Present	Director, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, Iowa City, Iowa
2006 - Present	Co-Director, Biostatistics and Bioinformatics Core, University of Iowa/Mayo Clinic Lymphoma SPORE, Iowa City, Iowa
2017 - Present	Professor, Department of Biostatistics, College of Public Health, University of Iowa, Iowa City, Iowa

Honors and Awards

1992	Barry M. Goldwater Scholarship, U.S. Congress
1997	Excellence in Teaching Award for Graduate Teaching Assistants, University of Iowa
2000	John M. Chambers Statistical Software Award, Statistical Computing Section, American Statistical Association
2001	Milford E. Barnes Award, College of Public Health, University of Iowa
2003	New Investigator Research Award, College of Public Health, University of Iowa

2005	Steben D. Gray Resident's Research Award, Annual Scientific Session, American Broncho-Esophagological Association, Boca Raton, FL
2006	Children's Environmental Health Recognition Award, U.S. Environmental Protection Agency
2006	Innovations in Instructional Computing Award, University of Iowa
2006	New Investigator Research Award, Conference on Radiation and Health, American Statistics Association
2009	Induction, Delta Omega Honor Society for Public Health
2014	Faculty Teaching Award, College of Public Health, University of Iowa
2024	Faculty Service Award, College of Public Health, University of Iowa

Teaching

Course Teaching

University of Iowa

Fall 2001	Intro to Biostatistics, 171:161, Credit Hours: 3, Enr: 55, Percent of Course: 100.0%
Spring 2002	Intro to Biostatistics, 171:161, Credit Hours: 3, Enr: 30, Percent of Course: 100.0%
Summer 2002	Intro to Biostatistics, 171:161, Credit Hours: 3, Enr: 20, Percent of Course: 100.0%
Fall 2002	Intro to Biostatistics, 171:161, Credit Hours: 3, Enr: 60, Percent of Course: 100.0%
Spring 2003	Statistical Methods in Epi II, 171:242, Credit Hours: 3, Enr: 11, Percent of Course: 70.0%
Fall 2003	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 3, Percent of Course: 100.0%
Fall 2003	Statistical Methods in Epi, 171:241, Credit Hours: 3, Enr: 40, Percent of Course: 100.0%
Fall 2004	Statistical Methods in Epi, 171:241, Credit Hours: 3, Enr: 35, Percent of Course: 100.0%
Spring 2005	Applied Survival & Cohort Data Analysis, 171:242, Credit Hours: 3, Enr: 21, Percent of Course: 100.0%
Spring 2005	Cohort Data Analysis, 171:243, Credit Hours: 1, Enr: 2, Percent of Course: 100.0%
Fall 2005	Applied Categorical Data Analysis, 171:241, Credit Hours: 3, Enr: 38, Percent of Course: 100.0%
Fall 2005	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Spring 2006	Intro to Biostatistics, 171:161, Credit Hours: 3, Enr: 53, Percent of Course: 100.0%
Spring 2006	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Fall 2006	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Fall 2006	Thesis/Dissertation, 171:300, Credit Hours: 4, Enr: 1, Percent of Course: 100.0%

Spring 2007	Applied Survival Analysis, 171:282, Credit Hours: 3, Enr: 10
Spring 2007	Biostat Methods in Categorical Data, 171:203, Credit Hours: 3, Enr: 16, Percent of Course: 100.0%
Spring 2007	Thesis/Dissertation, 171:300, Credit Hours: 2, Enr: 1, Percent of Course: 100.0%
Fall 2007	Applied Cat. Data Analysis, 171:241, Credit Hours: 3, Enr: 16, Percent of Course: 100.0%
Fall 2007	Thesis/Dissertation, 171:300, Credit Hours: 2, Enr: 1, Percent of Course: 100.0%
Spring 2008	Biostat Methods in Categorical Data, 171:203, Credit Hours: 3, Enr: 14, Percent of Course: 100.0%
Spring 2008	Thesis/Dissertation, 171:300, Credit Hours: 2, Enr: 1, Percent of Course: 100.0%
Fall 2008	Advanced Biostatistics Seminar: Bayesian Methods, 171:290, Credit Hours: 3, Enr: 10, Percent of Course: 67.0%
Spring 2009	Biostatistical Methods II, 171:202, Credit Hours: 4, Enr: 12, Percent of Course: 100.0%
Spring 2009	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Fall 2009	Special Topics: Matrix Theory for Biostatistics, 171:282, Credit Hours: 2, Enr: 4, Percent of Course: 100.0%
Spring 2010	Biostat Methods in Categorical Data, 171:203, Credit Hours: 3, Enr: 10, Percent of Course: 100.0%
Spring 2010	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Summer 2010	General Biostatistics, 171:121, Credit Hours: 4, Enr: 15, Percent of Course: 10.0%
Fall 2010	Advanced Biostatistics Seminar, 171:290:001
Fall 2010	Advanced Biostatistics Seminar: Bayesian Methods, 171:290, Credit Hours: 3, Enr: 10, Percent of Course: 67.0%
Spring 2011	Biostatistical Methods II, 171:202, Credit Hours: 4, Enr: 14, Percent of Course: 100.0%
Summer 2011	General Biostatistics, 171:121, Credit Hours: 4, Enr: 16, Percent of Course: 10.0%
Fall 2011	Biostatistical Computing, 171:178, Credit Hours: 3, Enr: 15, Percent of Course: 50.0%
Fall 2011	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Fall 2011	Thesis/Dissertation, 171:300, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Spring 2012	Advanced Biostatistics Seminar: Statistical Methods in Bioinformatics, 171:290, Credit Hours: 3, Enr: 6, Percent of Course: 100.0%
Spring 2012	Thesis/Dissertation, 171:300, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Summer 2012	General Biostatistics, 171:121, Credit Hours: 4, Enr: 16, Percent of Course: 10.0%
Fall 2012	Biostatistical Computing, 171:178, Credit Hours: 3, Enr: 15, Percent of Course: 100.0%
Fall 2012	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Fall 2012	Thesis/Dissertation, 171:300, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%

Spring 2013	Bayesian Methods and Design, 171:268, Credit Hours: 3, Enr: 4, Percent of Course: 75.0%
Spring 2013	Thesis/Dissertation, 171:300, Credit Hours: 2, Enr: 1, Percent of Course: 100.0%
Summer 2013	General Biostatistics, 171:121, Credit Hours: 4, Enr: 20, Percent of Course: 10.0%
Fall 2013	Biostatistical Computing, 171:178, Credit Hours: 3, Enr: 17, Percent of Course: 100.0%
Fall 2013	Thesis/Dissertation, 171:300, Credit Hours: 2, Enr: 1, Percent of Course: 100.0%
Spring 2014	Advanced Biostatistics Seminar: Statistical Methods in Bioinformatics, 171:290, Credit Hours: 3, Enr: 12, Percent of Course: 100.0%
Spring 2014	Preceptorship in Biostatistics, 171:280, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Spring 2014	Thesis/Dissertation, 171:300, Credit Hours: 2, Enr: 1, Percent of Course: 100.0%
Summer 2014	Independent Study in Biostatistics, BIOS:7800:0093, Credit Hours: 2, Enr: 1, Percent of Course: 100.0%
Fall 2014	Biostatistical Computing, BIOS:5510, Credit Hours: 3, Enr: 14, Percent of Course: 100.0%
Fall 2014	Preceptorship in Biostatistics, BIOS:7500:0093, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Fall 2014	Thesis/Dissertation, BIOS:7900:0093, Credit Hours: 6, Enr: 2, Percent of Course: 100.0%
Spring 2015	Bayesian Methods and Design, BIOS:6810:0001, Credit Hours: 3, Enr: 11, Percent of Course: 100.0%
Spring 2015	Preceptorship in Biostatistics, BIOS:7500:0093, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Spring 2015	Thesis/Dissertation, BIOS:7900:0093, Credit Hours: 7, Enr: 1, Percent of Course: 100.0%
Fall 2015	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 3, Enr: 15
Spring 2016	Advanced Biostatistics Seminar, BIOS:7600:0001, Credit Hours: 3, Enr: 16, Percent of Course: 100.0%
Spring 2016	Thesis/Dissertation, BIOS:7900:0093, Percent of Course: 100.0%
Fall 2016	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 12, Percent of Course: 100.0%
Fall 2016	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 11, Percent of Course: 100.0%
Fall 2016	Preceptorship in Biostatistics, BIOS:7500:2062, Percent of Course: 100.0%
Fall 2016	Thesis/Dissertation, BIOS:7900:3369, Percent of Course: 100.0%
Spring 2017	Biostatistical Methods Categorical Data, BIOS:5730:0001, Credit Hours: 3, Enr: 10, Percent of Course: 100.0%
Spring 2017	Thesis/Dissertation, BIOS:7900:5367, Percent of Course: 100.0%
Fall 2017	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 17, Percent of Course: 100.0%

Fall 2017	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 16, Percent of Course: 100.0%
Fall 2017	Thesis/Dissertation, BIOS:7900:8102, Percent of Course: 100.0%
Spring 2018	Machine Learning for Biomedical Data, BIOS:6720:0001, Credit Hours: 3, Enr: 15, Percent of Course: 100.0%
Spring 2018	Thesis/Dissertation, BIOS:7900:9311, Percent of Course: 100.0%
Fall 2018	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 25, Percent of Course: 100.0%
Fall 2018	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 20, Percent of Course: 100.0%
Fall 2018	Preceptorship in Biostatistics, BIOS:7500:0902, Enr: 1, Percent of Course: 100.0%
Fall 2018	Thesis/Dissertation, BIOS:7900:1753, Enr: 2, Percent of Course: 100.0%
Spring 2019	Biostatistical Methods II, BIOS:5720:0A01, Credit Hours: 4, Enr: 20, Percent of Course: 100.0%
Spring 2019	Biostatistical Methods II, BIOS:5720:0AAA, Enr: 20, Percent of Course: 100.0%
Spring 2019	Thesis/Dissertation, BIOS:7900:3247, Enr: 2, Percent of Course: 100.0%
Fall 2019	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 21, Percent of Course: 100.0%
Fall 2019	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 13, Percent of Course: 100.0%
Fall 2019	Preceptorship in Biostatistics, BIOS:7500:5157, Enr: 1, Percent of Course: 100.0%
Fall 2019	Thesis/Dissertation, BIOS:7900:5953, Enr: 2, Percent of Course: 100.0%
Spring 2020	Machine Learning for Biomedical Data, BIOS:6720:0001, Credit Hours: 3, Enr: 21, Percent of Course: 100.0%
Spring 2020	Thesis/Dissertation, BIOS:7900:8140, Enr: 2, Percent of Course: 100.0%
Fall 2020	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 23, Percent of Course: 100.0%
Fall 2020	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 19, Percent of Course: 100.0%
Fall 2021	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 16, Percent of Course: 100.0%
Fall 2021	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 11, Percent of Course: 100.0%
Spring 2022	Machine Learning for Biomedical Data, BIOS:6720:0001, Credit Hours: 3, Enr: 23, Percent of Course: 100.0%
Spring 2022	Problems/Special Topics in Biostatistics, BIOS:7700:0001, Credit Hours: 3, Enr: 1, Percent of Course: 100.0%
Fall 2022	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 18, Percent of Course: 100.0%

Fall 2022	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 13, Percent of Course: 100.0%
Spring 2023	Biostatistical Methods Categorical Data, BIOS:5730:0001, Credit Hours: 3, Enr: 11, Percent of Course: 100.0%
Fall 2023	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 11, Percent of Course: 100.0%
Fall 2023	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 10, Percent of Course: 100.0%
Spring 2024	Problems/Special Topics in Biostatistics, BIOS:7700:0001, Credit Hours: 3, Enr: 3, Percent of Course: 100.0%
Spring 2024	Machine Learning for Biomedical Data, BIOS:6720:0001, Credit Hours: 3, Enr: 9, Percent of Course: 100.0%
Fall 2024	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 15, Percent of Course: 100.0%
Fall 2024	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 15, Percent of Course: 100.0%
Spring 2025	Biostatistical Methods Categorical Data, BIOS:5730:0001, Credit Hours: 3, Enr: 15, Percent of Course: 100.0%
Fall 2025	Biostatistical Computing, BIOS:5510:0001, Credit Hours: 2, Enr: 13, Percent of Course: 100.0%
Fall 2025	Biostatistical Computing, BIOS:5510:0002, Credit Hours: 2, Enr: 13, Percent of Course: 100.0%
Fall 2025	Problems/Special Topics in Biostatistics, BIOS:7700:0001, Credit Hours: 3, Enr: 3, Percent of Course: 100.0%
Spring 2026	Machine Learning for Biomedical Data, BIOS:6720:0001, Credit Hours: 3, Enr: 14, Percent of Course: 100.0%
Spring 2026	Problems/Special Topics in Biostatistics, BIOS:7700:0001, Credit Hours: 3, Enr: 5, Percent of Course: 100.0%

Scholarship/Professional Productivity

Publications or creative works

Peer-reviewed papers and journal articles

1. Field, R. W., **Smith, B. J.** & Lynch, C. F. (1998). Ecologic bias revisited, a rejoinder to Cohen's response to "Residential Rn-222 exposure and lung cancer: testing the linear no-threshold theory with ecologic data". (Vols. 75). (1), pp. 31-33. Health Physics.
2. Fisher, E. L., Field, R. W., **Smith, B. J.**, Lynch, C. F., Steck, D. J. & Neuberger, S. (1998). Spatial variation of residential radon concentrations: the Iowa Radon Lung Cancer Study. (Vols. 75). (5), pp. 506-513. Health Physics. PMID: 9790560.
3. Field, R. W., **Smith, B. J.**, Brus, C. P., Lynch, C. F., Neuberger, j. S. & Steck, D. J. (1998). Retrospective temporal and spatial mobility of adult Iowa women. (Vols. 18). (5), pp. 575-584. Risk Analysis. PMID: 9853393.

4. **Smith, B. J.**, Field, R. W. & Lynch, C. F. (1998). Residential Rn-222 exposure and lung cancer: testing the linear no-threshold theory with ecologic data. (Vols. 75). (1), pp. 11-17. Health Physics. PMID: 9645661.
5. Field, R. W., **Smith, B. J.** & Lynch, C. F. (1999). Response to Straja and Moghissi concerning ecologic studies. (Vols. 76). (3), pp. 318-319. Health Physics.
6. Field, R., Lynch, C. F., Steck, D. J., **Smith, B. J.**, Brus, C. P., Neuberger, J. S., Woolson, R. F., Fisher, E. F., Platz, C. E. & Robinson, R. A. (1999). Iowa Radon Lung Cancer Study. (Vols. 151). pp. 101-103. Radiation Research.
7. Field, R., **Smith, B. J.** & Lynch, C. F. (1999). Cohen's paradox. (Vols. 77). (3), pp. 328-329. Health Physics.
8. Field, R. W., Steck, D. J., **Smith, B. J.**, Brus, C. P., Fisher, E. F., Neuberger, J. S., Platz, C. E., Robinson, R. A., Woolson, R. F. & Lynch, C. F. (2000). Residential radon gas exposure and lung cancer: the Iowa Radon Lung Cancer Study. (Vols. 151). (11), pp. 1091-1102. American Journal of Epidemiology. PMID: 10873134.
9. Field, R., Steck, D. J., **Smith, B. J.**, Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. (2001). The Iowa Radon Lung Cancer Study phase I: residential radon gas exposure and lung cancer. (Vols. 272). pp. 67-72. The Science of the Total Environment. PMID: 11379939.
10. Field, R., **Smith, B. J.**, Steck, D. J. & Lynch, C. F. (2002). Residential radon exposure and lung cancer: variation in risk estimates using alternative exposure scenarios. (Vols. 12). (3), pp. 197-203. Journal of Exposure Analysis & Environmental Epidemiology. PMID: 12032816.
11. Joudi, F. N., **Smith, B. J.**, O'Donnell, M. A. & Konety, B. (2003). Contemporary management of superficial bladder cancer in the United States: a pattern of care analysis. (Vols. 62). pp. 1083-1088. Urology. PMID: 14665360.
12. Stone, P. J., Goodheart, M. J., Rose, S. L., **Smith, B. J.**, DeYoung, B. R. & Buller, R. E. (2003). The influence of microvessel density on ovarian carcinogenesis. (Vols. 90). pp. 566-571. Oncology. PMID: 13678725.
13. Rose, S. L., Robertson, A. D., Goodheart, M. J., **Smith, B. J.**, DeYoung, B. R. & Buller, R. E. (2003). The impact of p53 protein core domain structural alteration on ovarian cancer survival. (Vols. 9). pp. 4139-4144. Clinical Cancer Research. PMID: 14519637.
14. Rose, S. L., Goodheart, M. J., DeYoung, B. R., **Smith, B. J.** & Buller, R. E. (2003). p21 expression predicts outcome in p53-null ovarian cancer. (Vols. 9). pp. 1028-1032. Clinical Cancer Research. PMID: 12631602.
15. Dennis, L. K., Snetselaar, L. G., **Smith, B. J.**, Stewart, R. E. & Robbins, M. E. (2004). Problems with the assessment of dietary fat in prostate cancer studies. (Vols. 160). (5), pp. 436-444. American Journal of Epidemiology. PMID: 15321840.
16. Eichholz, A. C., Van Voorhis, B. J., Sorosky, J. I., **Smith, B. J.** & Sood, A. K. (2004). Operative note dictation: should it be taught routinely in residency programs?. (Vols. 103). (2), pp. 342-346. Obstetrics & Gynecology. PMID: 14754706.
17. Field, R., **Smith, B. J.**, Platz, C. E., Robinson, R. A., Neuberger, J. S., Brus, C. P. & Lynch, C. F. (2004). Lung cancer histologic type in the Surveillance, Epidemiology, and End Results registry versus independent review. (Vols. 96). pp. 1105-1107. Journal of the National Cancer Institute. PMID: 15265973.
18. Humann, M. J., Donham, K. J., Jones, M. L., Achutan, C. & **Smith, B. J.** (2005). Occupational noise exposure assessment in intensive swine farrowing systems: dosimetry, octave band, and specific task analysis. (Vols. 10). (1), pp. 23-37. Journal of Agromedicine. PMID: 15927915.
19. Yang, G. S., Bishop, W., **Smith, B. J.**, Goudy, S. & Bauman, N. M. (2005). Radiographic and endoscopic measurement of esophageal length in pediatric patients. (Vols. 114). (8), pp. 587-592. The Annals of Otology, Rhinology, and Laryngology.
20. Jacobson, G. M., Kamath, R. S., **Smith, B. J.** & Goodheart, M. J. (2005). Thromboembolic events in patients treated with definitive chemotherapy and radiation therapy for invasive cervical cancer. (Vols. 96). pp. 470-474. Gynecologic Oncology. PMID: 15661237.

21. Robinson, J. G., **Smith, B. J.**, Maheshwari, N. & Schrott, H. (2005). Pleiotropic effects of statins: benefit beyond cholesterol reduction? A meta-regression analysis. (Vols. 46). (10), pp. 1855-1862. Journal of the American College of Cardiology. PMID: 16286171.
22. Zhang, Y., **Smith, B. J.**, Spitz, D. R. & Oberley, L. W. (2006). Enzymatic activity is necessary for the tumor suppressive effects of MnSOD. (Vols. 8). (7-8), pp. 1282-1293. Antioxidants and Redox Signaling. PMID: 16910776.
23. Liu, J., Du, J., Zhang, Y. J., Sun, W., **Smith, B. J.**, Oberley, L. W. & Cullen, J. J. (2006). Suppression of the malignant phenotype in pancreatic cancer by overexpression of phospholipid hydroperoxide glutathione peroxidase. (Vols. 17). (1), pp. 105-116. Human Gene Therapy. PMID: 16409129.
24. Jacobson, G., Betts, V. & **Smith, B. J.** (2006). Change in volume of lumpectomy cavity during external beam irradiation of the intact breast. (Vols. 65). (4), pp. 116-1164. International Journal of Radiation Oncology, Biology, and Physics. PMID: 16682143.
25. Konety, B. R., Veerasathpurush, A., Modak, S., **Smith, B. J.** & Luft, H. S. (2006). Mortality after major surgery for urologic cancers in specialized urology hospitals: are they any better?. (Vols. 24). (13), pp. 2006-2012. Journal of Clinical Oncology.
26. Joudi, F. N., **Smith, B. J.** & O'Donnell, M. A. (2006). National BCG-interferon Phase 2 Investigator Group. Final results from a national multicenter phase II trial of combination bacillus calmette-guérin plus interferon α-2B for reducing recurrence of superficial bladder cancer. (Vols. 24). (4), pp. 344-348. Urologic Oncology. PMID: 16818189.
27. **Smith, B. J.** & Field, R. W. (2006). Effect of housing factors and surficial uranium on the spatial prediction of residential radon in Iowa. (Vols. 18). (5), pp. 481-497. Environmetrics.
28. Weyer, P. J., **Smith, B. J.**, Feng, Z. F., Kantamneni, J. R. & Riley, D. G. (2006). Comparison of nitrate levels in raw water and finished water from historical monitoring data on Iowa municipal drinking water supplies. (Vols. 116). (1-3), pp. 81-90. Environmental Monitoring and Assessment. PMID: 16779582.
29. Joudi, F. N., **Smith, B. J.**, O'Donnell, M. A. & Konety, B. R. (2006). The impact of age on response of patients with superficial bladder cancer to intravesical immunotherapy. (Vols. 175). (5), pp. 1634-1640. The Journal of Urology. PMID: 16600718.
30. Slane, B. G., Alykin-Burns, N., Andrekopoulos, C., Kalyanaraman, B., **Smith, B. J.**, Domann, F. E. & Spitz, D. R. (2006). Mutation of succinate dehydrogenase subunit C results in increased O2•-, oxidative stress, and genomic instability. (Vols. 66). (15), pp. 7615-7620. Cancer Research. PMID: 16885361.
31. Lal, G., Padmanabha, L., **Smith, B. J.**, Nicholson, R. M., Howe, J. R., O'Dorisio, M. S. & Domann, F. E. (2006). RIZ1 is epigenetically inactivated by promoter hypermethylation in thyroid carcinoma. (Vols. 107). (12), pp. 2752-2759. Cancer. PMID: 17103461.
32. Bowles, J. A., Wang, S., Link, B. K., Allan, B., Beuerlein, G., Campbell, M., Marquis, D., Ondek, B., Wooldridge, J. E., **Smith, B. J.**, Breitmeyer, J. B. & Weiner, G. J. (2006). Anti-CD20 monoclonal antibody with enhanced affinity for CD16 activates NK cells at lower concentrations and more effectively than rituximab. (Vols. 108). (8), pp. 2648-2654. Blood. PMID: 16825493. PMCID: PMC1895597.
33. Zhang, Z., **Smith, B. J.**, Steck, D. J., Guo, Q. & Field, R. W. (2007). Variation in yearly residential radon concentrations in the upper midwest. (Vols. 93). (4), pp. 288-297. Health Physics. PMID: 17846525.
34. Clava-Cerqueira, D., **Smith, B. J.**, Hostetler, M. L., Lal, G., Menda, Y., O'Dorisio, T. M. & Howe, J. R. (2007). Minimally invasive parathyroidectomy and preoperative MIBI scans: correlation of gland weight and preoperative PTH with MIBI scans. (Vols. 205). (Suppl 4), pp. S38-44. Journal of the American College of Surgeons. PMID: 17916517.
35. **Smith, B. J.** & Cowles, M. K. (2007). Correlating point-referenced radon and areal uranium data arising from a common spatial process. (Vols. 56). (3), pp. 313-326. Journal of Royal Statistical Society, Series C.
36. Oleson, J. J., **Smith, B. J.** & Kim, H. (2007). Joint spatio-temporal modeling of low incidence cancers sharing common risk factors. (Vols. 6). (1), pp. 105-124. Journal of Data Science.

37. **Smith, B. J.**, Zhang, L. & Field, R. (2007). Iowa radon leukemia study: a hierarchical population risk model for spatially correlated exposure measured with error. (Vols. 26). pp. 4619-4642. Statistics in Medicine. PMID: 17373673.
38. Simons, A. L., Fath, M. A., Mattson, D. M., **Smith, B. J.**, Walsh, S. A., Graham, M. M., Hichwa, R. D., Buatti, J. M., Dornfeld, K. & Spitz, D. R. (2007). Enhanced response of human head and neck cancer xenograft tumors to cisplatin combined with 2-deoxy-D-glucose correlates with increased 18F-FDG uptake as determined by PET imaging. (Vols. 69). (4), pp. 1222-1230. International Journal of Radiation Oncology, Biology, Physics. PMID: 17967311.
39. Teoh, M. L., Sun, W., **Smith, B. J.**, Oberley, L. W. & Cullen, J. J. (2007). Modulation of reactive oxygen species in pancreatic cancer. (Vols. 13). (24), pp. 7441-7450. Clinical Cancer Research. PMID: 18094428.
40. **Smith, B. J.** (2007). boa: An R Package for MCMC Output Convergence Assessment and Posterior Inference. (Vols. 21). (11), pp. 1-37. Journal of Statistical Software.
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6. Jacobson, G., Betts, V. & **Smith, B. J.** (2005). Change in volume of lumpectomy cavity during external beam irradiation of the intact breast. American Society for Therapeutic Radiology and Oncology 2005 Annual Meeting.
7. Adam, L. A., **Smith, B. J.**, Calva-Cerqueira, D., Howe, J. R. & Lal, G. (2006). Young and single: the case for limited neck exploration in young adults with sporadic primary hyperparathyroidism. 2006 Annual Meeting of the American Association of Endocrine Surgeons.
8. Khanna, G., O'Dorisio, M. S., Juweid, M., Menda, Y., Graham, M., Glasier, C., O'Dorisio, T., **Smith, B. J.**, Young, B. D. & Sato, Y. (2006). Somatostatin receptor scintigraphy for post-therapy surveillance of pediatric central nervous system tumors. 2006 Carcinoid/NET Physician Symposium.
9. Wilkinson, N., Howe, J., Scott-Conner, C., **Smith, B. J.** & Donohue, J. (2006). Risk Factors and Management of Proximal and Distal Gastric Cancer in the United States: Results of the 2001 Gastric Patient Care Evaluation. American Society of Clinical Oncology 2006 Gastrointestinal Cancers Symposium.
10. Scott-Conner, C. E., Romitti, P. A., Lynch, C. F., Wilkinson, N., Lal, G., Zhou, L. & **Smith, B. J.** (2006). Influence of pregnancy on breast cancer tumor characteristics and mortality in Iowa women. American Society of Clinical Oncology 2006 Annual Meeting.
11. Calva-Cerqueira, D., **Smith, B. J.**, Hostetler, M. L., Menda, Y., O'Dorisio, T. M. & Howe, J. R. (2006). Minimally invasive parathyroidectomy and preoperative MIBI scans: threshold values for gland weight and preoperative PTH and positive predictive value of MIBI scans. American Association of Endocrine Surgeons 2006 Annual Meeting.
12. Rich, N. T., **Smith, B. J.** & Vaena, D. A. (2006). Correlation of statin use and duration with increased survival in hormone refractory prostate cancer. American Society of Clinical Oncology 2006 Annual Meeting.
13. Wilkinson, N., Howe, J., Scott-Conner, C., **Smith, B. J.** & Donohue, J. (2006). Risk factors and management of proximal and distal gastric cancer in the United States: results of the 2001 gastric patient care evaluation. Society of Surgical Oncology 2006 Annual Meeting.
14. Jacobson, G. M., Bender, D. P. & **Smith, B. J.** (2008). High-dose-rate intracavitary brachytherapy combined with external radiotherapy for medically inoperable endometrial cancer. 2008 American Brachytherapy Society Breast Brachytherapy and Brachytherapy Physics School.
15. Robinson, J. G., Wang, S. & **Smith, B. J.** (2008). Meta-analysis of the relationship between non-high density lipoprotein cholesterol reduction and coronary heart disease risk. American Heart Association Scientific Sessions.
16. Johnson, M. T., Guidroz, J. A., **Smith, B. J.**, Graham, M. M., Scott-Conner, C. H., Snugg, S. L. & Weigel, R. J. (2009). A single institutional experience of factors affecting successful identification of sentinel lymph node in breast cancer patients. Central Surgical Association Annual Meeting. PMID: 19789026.

Conference Proceedings

1. Kim, Y., Patwardhan, K. A., Beichel, R. R., **Smith, B. J.**, Mart, C., Plichta, K. A., Chang, T., Sonka, M., Graham, M. M., Magnotta, V., Casavant, T., Xia, J. & Buatti, J. M. (2017). Development of a radiobiological evaluation tool to assess the expected clinical impacts of contouring accuracy between manual and semi-automated segmentation algorithms. pp. 3409-3412. 2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). DOI: 10.1109/EMBC.2017.8037588. PMID: 29060629.
2. **Smith, B. J.** & Hillis, S. L. (2020). Multi-reader multi-case analysis of variance software for diagnostic performance comparison of imaging modalities. pp. 113160K. Proceedings of SPIE 11316, Medical Imaging 2020: Image Perception, Observer Performance, and Technology Assessment. DOI: 10.1117/12.2549075. PMID: 32351258. PMCID: PMC7190386.
3. **Smith, B. J.** & Hillis, S. L. (2022). MATLAB toolbox for ROC analysis of multi-reader multi-case diagnostic imaging studies. Taylor-Phillips, S. & Mello-Thoms, C. R. (Eds.) (Vols. 12035). pp. 99-111. Proceedings of SPIE 12035, Medical Imaging 2022: Image Perception, Observer Performance, and Technology Assessment. DOI: 10.1117/12.2610663. PMID: 36159880. PMCID: PMC9504162.

Software

1. **Smith, B. J.** (2013). magma: Matrix Algebra on GPU and Multicore Architectures, R software package, version 0.2. The Comprehensive R Archive Network.
2. **Smith, B. J.** (2014). Survival calculator for surgically treated pancreatic cancer, R shiny software application. http://www.myweb.uiowa.edu/bjsmith/pancreas/.
3. **Smith, B. J.** (2016). boa: Bayesian Output Analysis Program (BOA) for MCMC, R software package. The Comprehensive R Archive Network.
4. **Smith, B. J.**, Yan, J. & Cowles, M. K. (2018). ramps: Bayesian Geostatistical Modeling with RAMPS, R software package. The Comprehensive R Archive Network.
5. **Smith, B. J.** & Deonovic, B. (2019). Mamba: Markov chain Monte Carlo (MCMC) for Bayesian analysis in julia. GitHub.
6. **Smith, B. J.**, Hillis, S. L. & Pesce, L. L. (2020). MRMCaov: R package for multi-reader multi-case analysis of variance. The Comprehensive R Archive Network. DOI: 10.5281/zenodo.7529524.
7. **Smith, B. J.** (2020). MachineShop: Machine Learning Models and Tools. The Comprehensive R Archive Network. DOI: 10.5281/zenodo.7596891.

Technical Reports

1. **United Nations Scientific Committee on the Effects of Atomic Radiation** (2020). Sources, Effects and Risks of Ionizing Radiation, United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) 2019 Report. New York: United Nations. DOI: 10.18356/9789210051361.

Other Publications

1. **Smith, B. J.** (2001). A Bayesian framework for analyzing exposure data from the Iowa radon lung cancer study. Doctoral Dissertation. University of Iowa.
2. Butcher, B. & **Smith, B. J.** (2020). Feature Engineering and Selection: A Practical Approach for Predictive Models. *The American Statistician 74 (3) 308-309.* DOI: 10.1080/00031305.2020.1790217.

Research Interests/Current Projects

- Bayesian Statistical Methods
- Cancer Statistics
- Statistical Computing
- Biomedical Informatics

Grants and Contracts

Active (Funded)

1. Novel risk stratification score for patients with acute Cerebral Venous Thrombosis; National Institutes of Health; Smith, Brian J (Co-Investigator), Ortega Gutierrez, Santiago (Principal Investigator)
    - R03 NS126804
    - Jan 1, 2023 - Dec 31, 2024
    - Amount: $155,748.00, 6% effort
2. Residential radon exposure and stroke risk: the REGARDS study; Trustees of Columbia University, National Institutes of Health; Smith, Brian J (Principal Investigator)
    - GG017657
    - May 1, 2021 - Mar 31, 2025
    - Amount: $145,870.00, 12% effort
3. Redox manipulation of iron to improve glioblastoma therapy: A phase 1 trial; National Institutes of Health; Smith, Brian J (Co-Investigator), Allen, Bryan (Principal Investigator), Buatti, John M (Principal Investigator)
    - R21 CA270742
    - May 16, 2023 - Mar 31, 2025
    - Amount: $390,742.00, 1% effort
4. Understanding cancer and comorbidities among American Indian and Alaska Native people; National Institutes of Health; Smith, Brian J (Co-Investigator), Nash, Sarah H (Principal Investigator)
    - R21 MD018641
    - Jun 23, 2023 - Apr 30, 2025
    - Amount: $414,620.00, 4% effort
5. Radon exposure in relation to the risk of cognitive impairment and mitochondrial function; Trustees of Columbia University, National Institutes of Health; Smith, Brian J (Principal Investigator)
    - GG018877
    - Mar 15, 2023 - Feb 28, 2026
    - Amount: $109,186.00, 13% effort
6. Cancer Center Support Grant; National Cancer Institute; Smith, Brian J (Co-Director), Weiner, George J (Principal Investigator)
    - P30 CA086862
    - Jul 14, 2000 - Mar 31, 2026
    - Amount: $66,218,492.00, 24% effort
    - This Cancer Center Support Grant is to support the Research activities of the Holden Comprehensive Cancer Center at The University of Iowa.
7. Development of diagnostic and prognostic ultrasound imaging biomarkers for plantar heel pain; National Institutes of Health; Smith, Brian J (Co-Investigator); Chimenti, Ruth (Principal Investigator), Holmes, James (Principal Investigator), Sluka, Kathleen (Principal Investigator)
    - R61 AT012275
    - Sep 17, 2024 - Aug 31, 2026
    - Amount: $1,467,542.00
8. (Iowa ISIB) Summer Institute for Research Education in Biostatistics and Data Science; National Institutes of Health; Smith, Brian J (Co-Investigator), Zamba, Gideon K (Principal Investigator)
    - R25 HL161716

- Mar 1, 2022 - Feb 28, 2027
- Amount: $1,280,640.00, 3% effort

9. T cell help and resistance to anti-cancer monoclonal antibody therapy; V Foundation for Cancer Research; Smith, Brian J (Co-Investigator), Weiner, George J (Principal Investigator)
    - No Contract #
    - Aug 1, 2023 - Aug 1, 2027
    - Amount: $800,000.00, 5% effort
10. High Resolution MRSI for Alzheimer's Disease and Related Dementias; National Institutes of Health; Smith, Brian J (Co-Investigator), Magnotta, Vincent A (Principal Investigator), Mathews, Jacob (Principal Investigator)
    - R01 AG087159
    - May 1, 2024 - Jan 31, 2029
    - Amount: $3,909,731.00, 5% effort

Completed

1. Bayesian Models for Meta-Analysis: The Impact of Dietary Fat Intake on Prostate Cancer; CPH-COM New Investigator Award; Smith, Brian J. (Principal Investigator)
    - Jan 1, 2003 - Dec 31, 2003
    - Amount: $5,000.00, 0% effort
    - The primary goal of this research is to develop a Bayesian modeling strategy for conducting a meta-analysis of published epidemiologic studies on dietary fat intake and prostate cancer.
2. Iowa and Missouri Radon Lung Cancer Studies; National Cancer Institute; Smith, Brian J (Co-Investigator), Field, R. William (Principal Investigator)
    - R01 CA85942-2
    - Jan 17, 2001 - Dec 31, 2005
    - Amount: $250,000.00, 6% effort
    - The goals of this study are: 1) to examine whether residual radon progeny, as measured by radon “glass” detectors, are associated with increased risk of developing lung cancer after controlling for confounders; 2) to determine whether the shape of the dose response curve is linear or nonlinear; and 3) whether exposure to radon progeny are related to incidence of adenocarcinoma.
3. Cumulative Sun Exposure and Melanoma: A Meta-Analysis; American Cancer Society; Smith, Brian J (Co-Investigator), Dennis, Leslie K (Principal Investigator)
    - RSGPB-04-008-01-CPPB
    - Jan 1, 2004 - Dec 31, 2005
    - Amount: $261,000.00, 10% effort
    - The primary goal is to conduct a meta-analysis of published estimates of the effect of sun exposure on melanoma risk. Develop meta-analysis models, perform the analyses, and provide general statistical support.
4. Comprehensive Assessment of Rural Health in Iowa; Iowa Department of Public Health; Smith, Brian J (Co-Investigator), Donham, Kelly J (Principal Investigator)
    - 5883CA02
    - Jan 1, 2004 - Aug 31, 2006
    - Amount: $396,981.00, 10% effort
    - The primary goal of this research is to assess the feasibility of developing a surveillance system that links health encounter data with environmental exposure data within a geographic

information system. Provide statistical support in modeling environmental exposures and assessing the associated disease risk.

5. Sexually Transmitted Infections as a Risk Factor for Prostate Cancer among Military Personnel; Department of Defense; Smith, Brian J (Co-Investigator), Dennis, Leslie K (Principal Investigator)
    - PC030310
    - Apr 1, 2004 - Jan 1, 2007
    - Amount: $553,125.00, 6% effort
    - The primary goal is to conduct a meta-analysis of published estimates of the effect of sexually transmitted infections on prostate cancer risk. Develop meta-analysis models, perform the analyses, and provide general statistical support.
6. Evaluation of the Edit Process as Applied to Lung Cases (SEER); Smith, Brian J (Co-Investigator), Lynch, Charles F (Principal Investigator)
    - N01-PC-35143
    - Aug 1, 2003 - Sep 30, 2007
    - Amount: $2,788,639.00, 2% effort
    - The goal is to assess the reason(s) for data field changes being made in the cancer specific fields of abstracts during the manual edit process, and application of SEER*Edits and Iowa specific edits.
7. Ad5-TRAIL Gene Therapy for Prostate Cancer; DOD; Smith, Brian J (Co-Investigator), Williams, Richard (Principal Investigator)
    - X81XWH-05-1-0536
    - May 19, 2006 - Jul 1, 2008
    - Amount: $190,000.00, 5% effort
    - A Phase I clinical trial to determine the local and systemic toxicity associated with intraprostatic injection of Ad5-TRAIL delivered in either fluid-phase or Gelfoam. Examine the distribution of Ad5-TRAIL within the human prostate after transperineal injection and determine the effect of transperineal injection on prostate cancer.
8. Mechanisms of Ascorbate-Induced Cytotoxicity in Pancreatic Cancer; Smith, Brian J (Co-Investigator), Cullen, Joseph (Principal Investigator)
    - R21 CA137230-01A1
    - Nov 1, 2009 - Jun 30, 2010
    - Amount: $110,000.00, 7% effort
    - The primary objective of this grant is to gain a mechanistic understanding of ascorbate-induced oxidative stress in pancreatic cancer cells. The hypothesis to be tested in that production of H2O2 mediates the increased susceptibility of pancreatic cancer cells to ascorbate-induced metabolic oxidative stress, relative to normal human cells.
9. Epidemiological and Medical Monitoring Proposal of Former Department of Defense Workers at the Iowa Army Ammunitions Plant in Middletown, Iowa; Department of Defense; Smith, Brian J (Co-Investigator), Fuortes, Laurence J. (Principal Investigator)
    - W911SR-05-C-005
    - Aug 29, 2005 - Sep 28, 2010
    - Amount: $800,000.00, 10% effort
    - Epidemiologic survey of occupationally-related adverse health outcomes for 37,000 former or currently employed DOD contract workers at the Middletown, Iowa, Iowa Army Ammunition Plant, (IAAP), who worked in conventional weapons manufacture on what was known as Division A. Epidemiologic Health Survey of Department of Defense Contract Workers at the

Iowa Army Ammunition Plant in Middletown, IA: Analyses of Cohort Mortality/Cancer Incidence and Surveillance for the Prevalence of Positive Beryllium Lymphocyte Proliferation Tests.

10. Mitochondrial-Derived Oxidants and Cellular Responses to Low Dose/Low LET Ionizing Radiation; DOE; Smith, Brian J (Co-Investigator), Spitz, Douglas (Principal Investigator)
    - DE-SC0000830
    - Sep 1, 2009 - Jan 1, 2011
    - Amount: $233,779.00, 5% effort
    - The major goal of this grant is to determine the role that mitochondrial electron transport chain mediated ROS formation plays in governing genotoxic and carcinogenic responses of mammalian cells/tissues to low dose/low dose rate ionizing radiation.
11. Statistics in Microbiology, Infectious Diseases & Bioinformatics; NIH/NIGMS; Smith, Brian J (Co-Investigator), Chaloner, Kathryn M (Principal Investigator)
    - T32 GM077973-01
    - Aug 1, 2006 - Jun 30, 2011
    - 0% effort
    - The goal of this training program is to train biostatisticians to take a leadership role in developing new interdisciplinary scientific research. This will be achieved by providing rigorous training in the disciplines of statistics and microbiology, and also providing interdisciplinary training in bioinformatics. This training program will provide a structure that will strengthen existing collaborations, and train a new generation of biostatisticians to advance biomedical and clinical research.
12. Dosimetry in Children and Young Adults with Neuroblastoma or Neuroendocrine Tumors; National Institutes of Health; Smith, Brian J (Co-Investigator), O'Dorisio, Sue (Principal Investigator)
    - R21 CA134198-01A1
    - Aug 1, 2008 - Jul 31, 2011
    - Amount: $338,339.00, 3% effort
    - The goal of this grant is to develop individualized, dosimetry-based, combination radiotherapy for pediatric tumors as a major step forward from the current approach of delivering an empiric radiation dose using a single agent. Efforts will be focused on neural crest and neuroendocrine tumors of childhood, such as neuroblastoma and foregut carcinoid, that express both the amine transporter protein, VMAT1, and the type 2 somatostatin receptor.
13. ARRA: Dosimetry Guided Phase II of 90Y-DOTA-tyr3-Octreotide + Retinoic Acid in Kids; National Institutes of Health; Smith, Brian J (Co-Investigator), O'Dorisio, Sue (Principal Investigator)
    - R21 CA141840-01
    - Aug 15, 2009 - Jul 31, 2011
    - Amount: $220,000.00, 2% effort
    - The primary objective of this study is to utilize 111In-DTPA-Octreotide based dosimetry to determine dosing of 90Y-DOTA-tyr3-Octreotide in treatment of children and young adults with advanced neuroblastoma or neuroendocrine tumor.
14. Role of Dystroglycan in Prostate Cancer Progression; National Institutes of Health; Smith, Brian J (Co-Investigator), Henry, Michael (Principal Investigator)
    - R01 CA130916-02
    - Jul 10, 2008 - May 31, 2013
    - Amount: $229,476.00, 5% effort
    - The goal is to determine the effects of dystroglycan glycosylation status on prostate cancer progression, determine the effects of a loss of dystroglycan function on tumor progression and

metastasis in a mouse model of prostate cancer, and determine the prognostic significance of a loss of DG immunostaining in human prostate cancer.

15. Gene-Environment Interaction Effects Influence the Risk of Breast, Prostate and Colorectal Cancer; HCCC Oberley Seed Grant Program; Smith, Brian J. (Principal Investigator)
    - May 1, 2012 - Apr 30, 2014
    - Amount: $50,000.00, 5% effort
    - To test whether SIRT1 and SIRT3 genetic variants interact with environmental exposures to increase risk of breast, prostate, and colorectal cancer
16. Iowa Summer Institute in Biostatistics (ISIB); National Institutes of Health; Smith, Brian J (Co-Investigator), Chaloner, Kathryn M. (Principal Investigator)
    - T15 HL097622
    - Aug 20, 2009 - Feb 28, 2016
    - Amount: $1,368,893.00, 4% effort
    - There is a nationwide shortage of biostatisticians and the shortage is having a negative impact on medical and public health research. The goal of this proposed program is to increase the number of minority undergraduates who enter graduate programs in Biostatistics or related areas. Instruction will be through case-based instruction of real biomedical research; computer laboratory training; projects; and clinical and translational research enrichment activities.
17. Improving Pelvic Cancer Patient Chemoradiotherapy Outcomes with FLT PET Imaging; National Institutes of Health; Smith, Brian J (Co-Investigator), McGuire, Sarah (Principal Investigator)
    - R01 CA169336
    - Sep 22, 2012 - Jun 30, 2016
    - Amount: $844,028.00, 10% effort
    - The purpose of this project is to minimize the toxicity of chemoradiation therapy for pelvic cancer patients by developing a non-invasive imaging tool to aid in reducing radiation dose to bone marrow. This may improve patient outcomes by increasing tolerance of therapy and the odds of completing the planned course of treatment as well as by providing the potential for patients to tolerate higher doses in new combinations of therapy for better tumor control.
18. IGERT: Geoinformatics for Environmental and Energy Modeling and Prediction (GEEMaP); NSF; Smith, Brian J (Supporting), Cowles, Mary Kathryn (Principal Investigator)
    - 0966130
    - Jul 15, 2010 - Jun 30, 2018
    - Amount: $2,655,254.00
    - To develop a novel, integrated graduate program of coursework, team-based research, internships, and international experience that will produce a new generation of quantitative and computational scientists prepared for interdisciplinary collaboration with engineers, social and natural scientists, government policy-makers, and industrial leaders in the global arena of environment and energy production.
19. Developing Enabling PET-CT Image Analysis Tools for Predicting Response in Radiation Cancer Therapy; National Institutes of Health; Smith, Brian J (Co-Investigator), Wu, Xiaodong (Principal Investigator)
    - R21 CA209874
    - Sep 6, 2016 - Jul 31, 2019
    - Amount: $364,857.00, 5% effort
    - This research proposes to develop fast and objective PET-CT analysis methods to facilitate the utilization of the dual modality imaging for both large-scale clinical trial research and daily clinical care. The novel feature of the proposed methods is the first time to introduce co-

segmentation for PET-CT tumor delineation, which recognizes the contour difference of tumors in PET from those in CT. New PET-CT specific priors will be explored and incorporated into the segmentation framework, further improving the accuracy of segmentation. The novel response prediction method is built on the accurate tumor definition from our PET-CT co-segmentation approach, with an innovative design of a convolutional neural network for automatically leaned hierarchical features directly from the PET-CT scans, leading to highly accurate prediction of response. The developed methods will be tested in comparison with state-of-the-art methods utilized today. The performance of the methods will be statistically assessed in data samples of sufficient sizes.

20. Iowa Summer Institute for Research Education in Biostatistics; National Institutes of Health; Smith, Brian J (Co-Investigator), Zamba, Gideon (Principal Investigator)
    - R25 HL131467
    - Feb 15, 2016 - Jan 31, 2020
    - Amount: $743,305.00, 4% effort
    - This is a proposal to the National Institutes of Health (NIH), National Heart, Lung and Blood Institute (NHLBI), from the University of Iowa, in response to RFA-HL-16-017 for a Summer Institute for Research Education in Biostatistics. The ultimate vision of our proposed research education program is to increase the number of undergraduates who enter graduate programs in Biostatistics and to maintain a solid underrepresented minority pipeline into biostatistics graduate programs. The proposal is for the University of Iowa (UI) Department of Biostatistics to recruit a diverse group of 18 trainees each year, from 2016 to 2018, with focus on minority, underrepresented and disadvantaged students who wouldn't have otherwise been exposed to the field of biostatistics.
21. Targeting Extracellular Histones with Novel RNA Bio-Drugs for the Treatment of Acute Lung Injury; DoD/Congressionally Directed Medical Research Program; Smith, Brian J (Co-Investigator), Giangrande, Paloma H (Principal Investigator)
    - W81XWH-16-1-0180
    - Sep 15, 2016 - Mar 14, 2020
    - Amount: $1,182,194.70, 3% effort
    - This project will study in vitro characterization and optimization of RNA aptamers that selectively bind to human histone and will evaluate efficacy and safety of histone-specific RNA aptamers in vivo.
22. Pharmacological Ascorbate as a Radiosensitizer in Pancreatic Cancer; National Institutes of Health; Smith, Brian J (Co-Investigator), Cullen, Joseph J (Principal Investigator)
    - R01 CA184051
    - Apr 1, 2015 - Mar 31, 2020
    - Amount: $1,391,087.00, 5% effort
    - Intravenous ascorbate produces high plasma concentrations in the range that is cytotoxic to pancreatic tumor cells. Pharmacological ascorbate has been hypothesized to be a pro-drug for formation of hydrogen peroxide (H2O2). Our proposal investigates mechanisms to enhance radiosensitivity of human pancreatic cancer cells by the flux of H2O2 generated by treatment with pharmacological ascorbate.
23. Quantitative Imaging to Assess Response in Cancer Therapy Trials; National Institutes of Health; Smith, Brian J (Statistician), Buatti, John M (Principal Investigator)
    - U01 CA140206
    - Apr 1, 2010 - Aug 31, 2020
    - Amount: $5,802,677.00, 12% effort

- This U01 mechanism is designed to promote research on quantitative imaging of tumor response in clinical trials settings with the overall goal of facilitating clinical decision making. All are committed to fully contribute toward our efforts to the envisioned Quantitative Imaging Network (QIN) and will use familiar common platforms of caBIG, NCIA (National Cancer Imaging Archive) and caBIG Imaging Workspace.

24. MTDH Regulates Fanconi Anemia Repair Pathway to Mediate Drug Resistance; National Institutes of Health; Smith, Brian J (Co-Investigator), Leslie, Kimberly K (Principal Investigator), Ming, Xiangbing (Principal Investigator)
    - R01 CA184101
    - Sep 18, 2014 - Aug 31, 2020
    - Amount: $1,582,078.00, 4% effort
    - The major emphasis of this grant is on translational studies that will provide novel insight into the mechanisms by which regulation of RNA translation produces alterations in DNA repair pathways, thereby leading to drug resistance.
25. Targeted Therapy for Endometrial Cancer; National Institutes of Health; Smith, Brian J. (Co-Investigator), Leslie, Kimberly K (Principal Investigator)
    - R01 CA099908
    - Sep 9, 2009 - Dec 31, 2021
    - Amount: $3,313,047.37, 8% effort
    - The major emphasis of this study is on the rational development of novel therapeutic strategies for molecularly enhanced chemotherapy in endometrial cancer that will have a significant potential for early translation to the clinic. The findings from this comprehensive research plan will be rapidly deployed in future clinical trials.
26. Pharmacological Ascorbate Combined with Radiation and Temozolomide in GBM; Gateway for Cancer Research; Smith, Brian J (Co-Investigator), Allen, Bryan (Principal Investigator)
    - G-17-1500
    - Jan 1, 2020 - Mar 31, 2022
    - Amount: $1,398,427.55, 5% effort
    - Phase 2 clinical trial assessing the efficacy of pharmacological ascorbate as an adjuvant therapy in glioblastoma multiforme (GBM).
27. Iowa Summer Institute for Research Education in Biostatistics (ISIREB); National Institutes of Health; Smith, Brian J (Co-Investigator), Zamba, Gideon K (Principal Investigator)
    - R25 HL147231
    - Mar 1, 2019 - Feb 28, 2023
    - Amount: $757,930.00, 4% effort
    - This is a proposal to the National Institutes of Health (NIH), National Heart, Lung and Blood Institute (NHLBI), from the University of Iowa, in response to RFA-HL-19-019 for an Iowa Summer Institute for Research Education in Biostatistics (ISIREB), Summer Programs 2019, 2020, & 2021.
28. Generalized Obuchowski-Rockette Methodology for Analysis of Radiologic Diagnostic Imaging Studies; National Institutes of Health; Smith, Brian J (Co-Investigator), Hillis, Stephen L (Principal Investigator)
    - R01 EB025174
    - Sep 1, 2018 - May 31, 2023
    - Amount: $1,967,380.00, 33% effort
29. Lymphoma Specialized Program of Research Excellence (SPORE) in Human Cancer; National Cancer Institute; Smith, Brian J (Co-Director), Weiner, George J (Principal Investigator)

- P50 CA097274
- Sep 11, 2002 - Jun 30, 2023
- Amount: $48,555,019.00, 15% effort
- The objectives of the SPORE are to understand the immunological mechanisms underlying anti-lymphoma monoclonal antibody therapy in an effort to treat lymphomas using a variety of modalities.

30. Exploiting Redox Metabolism Using Pharmacological Ascorbate for Cancer Therapy; National Cancer Institute; Smith, Brian J (Co-Investigator), Cullen, Joseph J (Principal Investigator)
    - P01 CA217797
    - Sep 19, 2018 - Aug 31, 2024
    - Amount: $10,317,023.00, 8% effort
31. Deep LOGISMOS; National Institutes of Health; Smith, Brian (Co-Investigator), Sonka, Milan (Principal Investigator), Buatti, John (Principal Investigator)
    - R01 EB004640
    - Apr 1, 2006 - Aug 31, 2025
    - Amount: $6,649,769.00, 2% effort

Presentations

Keynote/Plenary Address

1998 Field, R., Steck, D. J., Smith, B. J., Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. Preliminary Findings of the Iowa Radon Lung Cancer Study. Presented at Radon Conference, American Association of Radon Scientists and Technologists, Cherry Hill, New Jersey.

1999 Field, R., Steck, D. J., Smith, B. J., Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. Beyond BEIR VI – The Iowa Radon Lung Cancer Study. Presented at Illinois Department of Nuclear Safety, Radon Professionals Conference, University of Illinois at Chicago School of Public Health, Peoria, Illinois.

Invited Lectures

1998 Field, R., Steck, D. J., Smith, B. J., Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. Indoor Radon and Risk of Lung Cancer: Iowa Radon Lung Cancer Study. Presented at Conference on Radiation and Health, American Statistical Association, San Diego, California.

1998 Smith, B. J. Iowa Radon Lung Cancer Study: Modeling the Linear Excess Risk of Lung Cancer associated with Radon Exposure. Presented at Seminar Series, Department of Biostatistics, University of Iowa, Iowa City, Iowa.

1998 Field, R., Steck, D. J., Smith, B. J., Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. Preliminary Findings of the Iowa Radon Lung Cancer Study. Presented at Council of Radiation Control Program Directors, U.S. Environmental Protection Agency, Cherry Hill, New Jersey.

1999 Field, R., Steck, D. J., Smith, B. J., Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. The Iowa Radon Lung Cancer Study Phase I: Improved Methods for Residential Radon Exposure Assessment. Presented at Interagency Workshop on the Role of Human Exposure Assessment in the Prevention of Environmental Disease, National Institute for Environmental Health Sciences, Rockville, Maryland.

1999 Field, R., Steck, D. J., Smith, B. J., Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. The Iowa Radon Lung Cancer Study Phase I: Residential Radon Gas Exposure and Lung Cancer. Presented at Radon in the Living Environment, European Commission, Directorate General for Science, R&D Radiation Research Unit, Athens, Greece.

1999 Field, R., Steck, D. J., Smith, B. J., Brus, C. P., Fisher, E. F., Neuberger, J. S. & Lynch, C. F. What Do We Know About the Risk Posed by Residential Radon? The Iowa Radon Lung Cancer Study. Presented at Annual Education Conference, Illinois Environmental Health Association, Peoria, Illinois.

2000 Cowles, M. K. & Smith, B. J. Assessing the Proportion of Treatment Effect Captured by Two Surrogate Markers Measured Longitudinally. Presented at Seminar Series, Department of Biostatistics, University of Iowa, Iowa City, Iowa.

2003 Field, R., Lynch, C. F., Steck, D. J., Smith, B. J., Brus, C. P., Neuberger, J. S., Woolson, R. F., Fisher, E. F., Platz, C. E. & Robinson, R. A. Iowa Radon Lung Cancer Study: Exposure Assessment. American Chemical Society, New York City, New York.

2004 Smith, B. J. Bayesian Statistics: An Idea Whose Time Has Come. Presented at Statistics Symposium, Arkansas State University, Jonesboro, Arkansas.

2004 Field, R., Steck, D. J., Smith, B. J., Lynch, C. F., Lubin, J. H., Parkhurst, M. A. & Alavanja, M. C. Iowa and Missouri Residential Radon Studies: State-of-the-Art Exposure Assessment. Presented at First National Cancer Institute Leadership Workshop: Tobacco, Diet, and Genes, Chicago, Illinois.

2004 Smith, B. J. Modeling the Distribution of Environmental Radon Levels in Iowa: Combining Multiple Sources of Spatially Misaligned Data. Presented at Colloquium, Department of Statistics, University of Iowa, Iowa City, Iowa.

2004 Smith, B. J. Modeling the Distribution of Radon Levels in Iowa: Combining Multiple Sources of Spatial Data. Presented at Kohn Colloquium, Department of Geography, University of Iowa, Iowa City, Iowa.

2004 Smith, B. J., Dennis, L. & Snetselaar, L. G. Prostate Cancer Meta-Analysis: Combining Dose-Response Data, Study-Specific Covariates, and Dietary Quality Scores. Presented at Faculty Meeting, College of Public Health, University of Iowa, Iowa City, Iowa.

2006 Cowles, M. K. & Smith, B. J. Fusing Point-Referenced Radon Data with Areal Uranium Data Arising from a Common Spatial Process. Presented at Seminar Series, Department of Statistics, University of Wisconsin, Madison, Wisconsin.

2006 Smith, B. J. & Oleson, J. J. Geostatistical Hierarchical Model for Temporally Integrated Data Measured with Error. Presented at Seminar Series, Department of Biostatistics, University of Iowa, Iowa City, Iowa.

2006 Smith, B. J. Geostatistical Hierarchical Model for Temporally Integrated Data Measured with Error. Presented at Spring Meeting, Eastern North American Region of the International Biometry Society, Tampa, Florida.

2007 Cowles, K., Smith, B. J. & Yan, J. Computing for Bayesian Spatial Estimation and Prediction with Application to Residential Radon. Presented at DIMACS Workshop on Markov Chain Monte Carlo: Synthesizing Theory and Practice, Rutgers University, Piscataway, New Jersey.

2007 Oleson, J. J. & Smith, B. J. Joint Spatio-Temporal Modeling of Low Incidence Cancers Sharing Common Risk Factors. Presented at Seminar Series, Department of Statistics, Iowa State University, Ames, Iowa.

2009 Smith, B. J., Yan, J. & Cowles, M. K. ramps: An R Package for Unified Geostatistical Modeling of Complex Spatiotemporal Data. Presented at Joint Statisitcal Meetings, American Statistical Association, Washington, District of Columbia.

2009 Smith, B. J., Yan, J. & Cowles, M. K. ramps: An R Package for Unified Geostatistical Modeling of Complex Spatiotemporal Data. Presented at SAMSI Program on Space-time Analysis for Environmental Mapping, Epidemiology and Climate Change, National Science Foundation, Research Triangle Park, North Carolina.

2009 Smith, B. J., Yan, J. & Cowles, M. K. ramps: An R Package for Unified Geostatistical Modeling of Complex Spatiotemporal Data. Presented at Seminar Series, Department of Biostatistics, University of Alabama, Birmingham, Alabama.

2010 Smith, B. J., Yan, J. & Cowles, M. K. ramps: An R Package for Unified Geostatistical Modeling of Complex Spatiotemporal Data. Presented at Innovations in Design, Analysis, and Dissemination: Frontiers in Biostatistical Methods, American Statistical Association, Kansas City, Missouri.

2015 Smith, B. J. RStudio Hands-on Training. Presented at Bioinformatics Summer Course, Iowa Institute for Human Genetics, Iowa City, Iowa.

2016 Smith, B. J. Holden Comprehensive Cancer Center Biostatsitics Core. Presented at Informatics Showcase, University of Iowa Informatics Initiative, Iowa City, Iowa.

Mar 16, 2021 Smith, B. J. UNSCEAR 2019 Report: Lung Cancer Risk from Exposure to Radon. Presented at EPA Indoor Air Quality Science Webinar, Environmental Protection Agency.

Oral Presentations

2000 Smith, B. J. & Cowles, M. K. Bayesian Spatial Analysis for Data Obtained from Multiple Measurement Sources. Presented at Spring Meeting, Eastern North American Region of the International Biometry Society, Chicago, Illinois.

2000 Smith, B. J. & Cowles, M. K. Bayesian Spatial Analysis of Radon Exposure Data from the Iowa Radon Lung Cancer Study. Presented at Annual Meeting, American Statistical Association, Iowa Chapter, Indianola, Iowa.

2000 Smith, B. J. & Cowles, M. K. Bayesian Spatial Analysis of Radon Exposure Data from the Iowa Radon Lung Cancer Study. Presented at Joint Statisitcal Meetings, American Statistical Association, Indianapolis, Indiana.

2001 Smith, B. J. Bayesian Risk Analysis of Radon Exposure Data from the Iowa Radon Lung Cancer Study. Presented at Conference on Monte Carlo in the New Millennium, Department of Statistics, University of Florida, Gainesville, Florida.

2005 Smith, B. J. Modeling the Distribution of Environmental Radon Levels in Iowa: Combining Multiple Sources of Spatially Misaligned Data. Presented at Joint Statistical Meetings, American Statistical Association, Minneapolis, Minnesota.

2005 Smith, B. J. Statistical Issues in the Study of Residential Radon. Presented at New Researcher's Conference, Institute of Mathematical Statistics, Minneapolis, Minnesota.

2006 Cowles, M. K. & Smith, B. J. Fusing Point-Referenced Radon Data with Areal Uranium Data Arising from a Common Spatial Process. Presented at Annual Meeting, Interface Foundation of North American, Pasadena, California.

2008 Smith, B. J., Yan, J. & Cowles, M. K. ramps: An R Package for Unified Geostatistical Modeling of Complex Spatiotemporal Data. Presented at Spring Meeting, Eastern North American Region of the International Biometry Society, Washington, District of Columbia.

Feb 20, 2020 Smith, B. J. & Hillis, S. L. Multi-Reader Multi-Case Analysis of Variance Software for Diagnostic Performance Comparison of Imaging Modalities. Presented at SPIE Medical Imaging Conference, Houston, US/Puerto Rico.

Mar 25, 2020 Curtis, A. M., Smith, B. J. & Chappel, A. G. Adaptive Subgroup Identification in Phase I-II Clinical Trials. Presented at ENAR 2020 Spring Meeting, Vitrual, US/Puerto Rico.

Posters

2004 Smith, B. J., Dennis, L. & Snetselaar, L. G. A Bayesian Meta-Analysis of the Impact of Dietary Fat Intake on Prostate Cancer Risk. Presented at Research Week, Carver College of Medicine, University of Iowa, Iowa City, Iowa.

2004 Bardia, A., Snetselaar, L. G., Smith, B. J., Lowe, J., Peterson, J. & Faryle, N. Is Being Obese and Eating a Low Carbohydrate Diet the Norm among Both Sexes – A Cross Sectional Survey Study in a Rural Community of Iowa. Presented at Annual Meeting, American College of Epidemiology, Boston, Massachusetts.

2005 Rose, S. L., Fitzgerald, M. P., Geest, K. D., White, N., Smith, B. J. & Domann, F. E. Maspin Expression is Activated by Loss of Promoter Methylation in Ovarian Carcinoma. Presented at Research Week, Carver College of Medicine and College of Public Health, University of Iowa, Iowa City, Iowa.

2005 Yang, G., Bishop, W., Smith, B. J., Goudy, S. & Bauman, N. M. Radiographic and Endoscopic Measurement of Esophageal Length in Pediatric Patients. Presented at Annual Meeting, The American Broncho-Esophago-logical Association, Boca Raton, Florida.

2006 Smith, B. J. & Oleson, J. J. Geostatistical Hierarchical Model for Temporally Integrated Radon Measurements. Presented at Conference on Radiation and Health, American Statistical Association, Pacific Grove, California.

2006 Scott-Connor, C. E., Romitti, P. A., Lynch, C. F., Smith, B. J., Lal, G. & Wilkinson, N. Influence of Pregnancy on Breast Cancer Characteristics and Receptor Status in Iowa Women. Presented at San Antonio Breast Cancer Symposium, CTRC-AACR, San Antonio, Texas.

2006 Zhang, Z., Field, R., Smith, B. J. & Steck, B. J. Variation in Yearly Residential Radon Concentrations in the Upper Midwest. Presented at James F. Jakobsen Graduate Student Conference, University of Iowa, Iowa City, Iowa.

2006 Zhang, Z., Field, R., Smith, B. J. & Steck, B. J. Variation in Yearly Residential Radon Concentrations in the Upper Midwest. Presented at Research Week, Carver College of Medicine and College of Public Health, University of Iowa, Iowa City, Iowa.

2006 Lammli, J., Jacobson, G., Smith, B. J. & Goodheart, M. J. Venous Thromboembolic Events and Survival in Cervical Carcinoma. Presented at Research Week, Carver College of Medicine, University of Iowa, Iowa City, Iowa.

2007 Chen, Y. & Smith, B. J. Optimal Adaptive Group Sequential Design for Phase II Clinical Trials: A Bayesian Decision Theoretical Approach. Presented at Midwest Biopharmaceutical Statistics Workshop, Ball State University, Muncie, Indiana.

Demonstrations

Feb 16, 2020 Smith, B. J. & Hillis, S. L. Multi-Reader Multi-Case Analysis of Variance Software for Diagnostic Performance Comparison of Imaging Modalities. Presented at SPIE Medical Imaging Conference, Houston, US/Puerto Rico.

Feb 20, 2022 Smith, B. J. & Hillis, S. L. MATLAB toolbox for ROC analysis of multi-reader multi-case diagnostic imaging studies. Presented at SPIE Medical Imaging Conference, San Diego, California, US/Puerto Rico.

Feb 21, 2023 Smith, B. J. & Hillis, S. L. Statistical software for ROC analysis of multi-reader multi-case diagnostic imaging studies. Presented at SPIE Medical Imaging Conference, San Diego, California, US/Puerto Rico.

Panels

Jun 11, 2018 Vanmarcke, H., Strand, P., Smith, B. J. & Marsh, J. Lung Cancer from Exposure to Radon and to Penetrating Radiation. Presented at Sixty-Fifth Session of UNSCEAR, United Nations, Vienna, Austria.

Seminars

2002 Biostatisitcs Seminar for Environmental Health Sciences Institute for Rural Youth. College of Public Health, University of Iowa.

2006 Biostatistics Seminar for Hematology, Oncology, and Blood & Marrow Transplantation Core (2 Lectures). University of Iowa.

2010 Biostatistics Seminar for Hematology, Oncology, and Blood & Marrow Transplantation Core (2 Lectures). University of Iowa.

2010 Biostatistics Seminar for Radiation Oncology (15 Lectures). University of Iowa.

2012 Biostatistics Seminar for Radiation Oncology (15 Lectures). University of Iowa.

2014 Biostatistics Seminar for Radiation Oncology (15 Lectures). University of Iowa.

2016 Biostatistics Seminar for Radiation Oncology (15 Lectures). University of Iowa.

Service

Professional Service

Professional Organizations

2002 - 2006 American Mathematical Association, Member

2009 - 2011 ENAR Regional Advisory Board, Member

1992 - Present Phi Beta Kappa, Member

1999 - Present American Statistical Association, Member

2001 - Present Eastern North American Region of the International Biometric Society, Member

2009 - Present Delta Omega, Member

Journal Reviews/Referee Manuscripts

1998 - 1999 Health Physics, Reviewer
1998 - 1999 Journal of Agricultural, Biological, and Environmental Statistics, Reviewer
2001 Journal of Toxicology & Environmental Health, Reviewer
2001 Statistical Computing, Reviewer
2002 Health Physics, Reviewer
2002 - 2003 Statistics in Medicine, Reviewer
2003 Statistics and Computing, Reviewer
2004 Journal of Clinical Oncology, Reviewer
2005 Environmental and Ecological Statistics, Reviewer
2006 Environmental Health Perspectives, Reviewer
2007 BioMed Central Pediatrics, Reviewer
2007 Circulation, Reviewer
2008 BMC Pediatrics, Reviewer
2008 Computational Statistics and Data Analysis, Reviewer
2008 Journal of Applied Statistics, Reviewer
2008 Journal of Environmental Management, Reviewer
2008 Springer Book Review, Reviewer
2008 Statistics and Computing, Reviewer
2008 Statistics in Medicine, Reviewer
2009 Environmetrics, Reviewer
2010 Statistics in Medicine, Reviewer
2011 Statistics and Computing, Reviewer
2013 International Journal of Cancer, Reviewer
2013 Journal of the American Medical Informatics Association, Reviewer
2014 Radiation Protection Dosimetry, Reviewer
2014 - 2015 Communications in Statistics - Simulation and Computation, Reviewer
2016 Statistics in Medicine, Reviewer
2017 BMC Medical Research Methodology, Reviewer
2017 Journal of Computational and Graphical Statistics, Reviewer
2017 Science of the Total Environment, Reviewer
2018 Cancer Chemotherapy and Pharmacology, Reviewer
2018 Statistics and Computing, Reviewer
2019 - 2020 Journal of the American Medical Informatics Association, Reviewer

2020 Journal of the American Medical Association, Reviewer

2007 - Present Journal of Clinical Oncology, Reviewer

Review Panels

2003 Environmental Statistics Research: Novel Analyses of Human Exposure Related Data, U.S. EPA, Reviewer, Grant Proposals

2010 Cancer Prevention Study Section, NIH, Reviewer, Grant Proposals

2010 - 2011 Cancer Biomarkers Study Section, NIH, Reviewer, Grant Proposals

2011 American Cancer Society Seed Grant, Holden Comprehensive Cancer Center, University of Iowa, Reviewer, Grant Proposals

2015 Preclinical Pediatric Testing Consortium (U01), NIH, Reviewer, Grant Proposals

2018 SPORE V (P50), NCI, Reviewer, Grant Proposals

2016 - 2019 Subcommittee F, Institutional Training and Education, NCI, Reviewer, Grant Proposals

2020 Pennsylvania Department of Health Peer Review, Oak Ridge Associated Universities, Reviewer

2021 Program Project I (P01), NCI, Reviewer, Grant Proposals

2022 SPORE II (P50), NCI, Reviewer, Grant Proposals

2023 Program Project I (P01), NCI, Reviewer, Grant Proposals

2023 Program Project I (P01), NCI, Reviewer, Grant Proposals

2024 National Institute of Allergy and Infectious Disease, NIH, Reviewer, Grant Proposals

2026 SPORE (P50), NCI, Reviewer, Grant Proposals

Organize Conferences, Sessions, etc.

2005 Monitoring and Modeling Air Quality and its Health Effects, Joint Statistical Meetings, Minneapolis, MN, Session Chair

2009 Boosting, Ensemble Learning, and Other Data-Mining Methods, Joint Statistical Meetings, Washington, DC, Session Chair

2009 Efficient Methods for the Analysis of Spatial Data: Computing and Application, Joint Statistical Meetings, Washington, DC, Session Organizer

2010 Statistical Computing Subgroup, Epidemiology and Climate Change, SAMSI Program on Space-time Analysis for Environmental Mapping, Co-Chair

2021 Annual International Meeting, Session on Epidemiology of Lung Cancer Following Radiation Exposure, Radiation Research Society, Co-Chair

National/International Committees

2016 - 2020 Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), United Nations, Expert Panel (Lead Writer), Effects of Exposure to Radon in Homes and Workplaces

2016 - Present Lung Cancer Surgery or Stereotactic Radiotherapy (VALOR) Cooperative Study Data Monitoring Committee, Veterans Affairs, Member

2019 - Present Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), United Nations, Expert Panel, Epidemiological Studies of Radiation and Cancer

2025 - Present Delay Avolding Primary Evaluation for ThRombectomy of Acute StrokE Patients with Large Vessel OCclusion in the Angiography SuiTe (DIRECT) Clinical Trial Data Safety Monitoring Board, Member

Other

2014 Promotion Review Committee, College of Medicine, Mayo Clinic, External Reviewer

2016 Promotion and Tenure Review Committee, School of Public Health, Drexel University, External Reviewer

2017 Promotion and Tenure Review Committee, College of Public Health, University of Arizona, External Reviewer

2017 Promotion and Tenure Review Committee, School of Public Health, Rutgers University, External Reviewer

2017 Promotion and Tenure Review Committee, School of Public Health, West Virginia University, External Reviewer

2018 Promotion and Tenure Review Committee, School of Mathematics, Peking University, External Reviewer

2018 Promotion and Tenure Review Committee, School of Public Health, Rutgers University, External Reviewer

2019 Promotion and Tenure Review Committee, Geisinger Health System, External Reviewer

2020 Promotion and Tenure Review Committee, Department of Biostatistics, MD Anderson Cancer Center, External Reviewer

2020 Promotion and Tenure Review Committee, School of Community Health Sciences, University of Nevada, External Reviewer

2021 Promotion and Tenure Review Committee, College of Medicine, The Ohio State University, External Reviewer

2021 Promotion and Tenure Review Committee, School of Public Health, University of Texas Health Science Center, External Reviewer

2021 Promotion and Tenure Review Committee, Thomas Jeffferson University, External Reviewer

2022 Department of Biostatistics & Bioinformatics External Review Committee, Duke University, Reviewer

2023 Promotion and Tenure Review Committee, School of Public Health and Tropical Medicine, Tulane University, External Reviewer

2024 Promotion and Tenure Review Committee, College of Public Health, University of Florida, External Reviewer

University, College, Department Service

University

Aug - Dec 2001 Bess Sorensen, Department of Biostatistics, University of Iowa, TA Supervisor

Aug - Dec 2001 Jianfang Hu, Department of Biostatistics, University of Iowa, TA Supervisor

Aug 2001 - May 2002	Jay Sankaran, Department of Biostatistics, University of Iowa, TA Supervisor
Aug 2001 - May 2002	Shea Watrin, Department of Biostatistics, University of Iowa, TA Supervisor
Aug - Dec 2002	Greta Kilmer, Department of Biostatistics, University of Iowa, TA Supervisor
Aug - Dec 2002	Shea Watrin, Department of Biostatistics, University of Iowa, TA Supervisor
2002 - 2004	Center for Health Effects and Environmental Contaminants/Statistical Consultant, Member
2003 - 2004	Academic Misconduct Review Committee, College of Public Health, University of Iowa, Member
2004 - 2005	Faculty Council, College of Public Health, University of Iowa, Member
Jan - May 2005	Qian Shi, Department of Biostatistics, University of Iowa, TA Supervisor
May 2005 - May 2006	Li Zhou, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, GRA Supervisor
Jan - May 2006	Junting Zheng, Department of Biostatistics, University of Iowa, TA Supervisor
Jan - May 2006	Kwan-Youn Kim, Department of Biostatistics, University of Iowa, TA Supervisor
Jan - May 2006	Laura Becker, Department of Biostatistics, University of Iowa, TA Supervisor
2007	Seed Grant Program, Center for Global and Regional Environmental Research, University of Iowa, Reviewer
May 2006 - May 2007	Shanshan Zhao, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, GRA Supervisor
2007 - 2008	Computation and Informatics Committee, College of Public Health, University of Iowa, Member
May 2007 - May 2008	Lei Hua, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, GRA Supervisor
2009	Faculty Council, College of Public Health, University of Iowa, Officer, Secretary
2009	WISE Student Travel Grant, University of Iowa, Reviewer
2008 - 2010	Faculty Council, College of Public Health, University of Iowa, Member
2010	Biostatistician Search Committee, Holden Comprehensive Cancer Center, University of Iowa, Chair
2010	Faculty Council, College of Public Health, University of Iowa, Chair
2011	WISE Student Travel Grant, University of Iowa, Reviewer
2006 - 2012	James F. Jakobsen Graduate Conference/Judge, University of Iowa
2012	Research Week/Judge, College of Public Health and Carver College of Medicine, University of Iowa
2013	Biostatistician Search Committee, Holden Comprehensive Cancer Center, University of Iowa, Chair
2013	Informatics Task Force, Office of the Executive Vice President & Provost, University of Iowa, Member
Aug - Dec 2013	Jorge Leon, Department of Biostatistics, University of Iowa, TA Supervisor

Apr 26, 2010 - Jan 1, 2014	Anna Button, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, Supervisor
2014	Biostatistician Search Committee, Holden Comprehensive Cancer Center, University of Iowa, Chair
2014 - 2015	Alpha Phi Chapter, Delta Omega, Officer, Vice President
2015	Seed Grant Program, Center for Global and Regional Environmental Research, University of Iowa, Reviewer
2014 - 2016	Admissions Committee for Bioinformatics Interdisciplinary Graduate Program, Graduate College, University of Iowa, Member
2015 - 2016	Alpha Phi Chapter, Delta Omega, Officer, President
2017	Masters Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Chair
Aug 2016 - May 2018	Michael Brumm, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, GRA Supervisor
2016 - 2019	University of Iowa Informatics Initiative Committee, Member
Aug 2018 - May 2019	ZhuangZhuang Liu, Department of Biostatistics, University of Iowa, TA Supervisor
Jun 22, 2015 - Jun 6, 2019	Tim Ginader, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, Supervisor
Aug - Dec 2019	Bradley Loeffler, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, GRA Supervisor
2013 - 2020	Informatics Steering Committee, Office of the Executive Vice President & Provost, University of Iowa, Member
2020	Biostatistician Search Committee, Holden Comprehensive Cancer Center, University of Iowa, Chair
Aug 2019 - May 2020	Megan Aadland, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, GRA Supervisor
Aug 2019 - May 2020	Megan Aadland, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, GRA Supervisor
Aug - Dec 2020	Nathan Cunicelli, Department of Biostatistics, University of Iowa, TA Supervisor
2022	Tippie College of Business Collegiate Review Committee, Reviewer
2006 - Present	Holden Comprehensive Cancer Center Data Safety and Monitoring Committee, Holden Comprehensive Cancer Center, Member
2009 - Present	Holden Comprehensive Cancer Center Population Research Core Advisory Committee, Holden Comprehensive Cancer Center, University of Iowa, Member
Jul 7, 2013 - Present	Sarah Bell, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, Supervisor
2016 - Present	Holden Comprehensive Cancer Center Epidemiology and Population Science Program Leadership Committee, Holden Comprehensive Cancer Center, University of Iowa, Member

2017 - Present	University of Iowa Research Computing IT Council, Information Technology Services and Office of the Vice President for Research & Economic Development, University of Iowa, Member
Jun 8, 2020 - Present	Bradley Loeffler, Biostatistics Core, Holden Comprehensive Cancer Center, University of Iowa, Supervisor
2021 - Present	AI Certificate Task Force, Member
2023 - Present	University of Iowa Academic AI Committee, Office of the Provost, University of Iowa, Member

College

2004 - 2005	MPH Curriculum Committee, Department of Biostatistics, University of Iowa, Member
2002 - 2006	Admissions Committee for MPH in Clinical Investigation, College of Public Health, University of Iowa, Member
2008	New Investigator Research Award Committee, College of Public Health and Carver College of Medicine, University of Iowa, Member
2009	Epidemiology Internal Review Committee, College of Public Health, University of Iowa, Member
2011	Delta Omega Student Poster Session Competition/Judge, College of Public Health, University of Iowa
2009 - 2013	Promotion and Tenure Collegiate Consulting Groups, College of Public Health, University of Iowa, Member
2014	Associate Dean for Administration Search Committee, College of Public Health, University of Iowa, Member
2014 - 2015	Global Public Health Committee, College of Public Health, University of Iowa, Member
2015 - 2018	Philanthropy Committee/Faculty Representative, College of Public Health, University of Iowa, Member
2018 - 2021	CPH Research Council Faculty Representative, College of Public Health, University of Iowa, Member
2020 - 2021	CPH Research Council, College of Public Health, University of Iowa, Chair
2020 - 2021	Promotion and Tenure Collegiate Consulting Groups, College of Public Health, University of Iowa, Member
2020 - Present	DEO Search Committee, Department of Health Management and Policy, College of Public Health, University of Iowa, Member

Department

1996 - 1997	Biostatistics Student Organization, Department of Biostatistics, College of Public Health, University of Iowa, Officer, President
1996 - 1997	Teaching Evaluation and Promotion Committee, Department of Preventive Medicine, University of Iowa, Member
2002 - 2003	Website Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member
2002 - 2004	Ph.D. Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Member

2003 - 2004 Continuing Education and Seminar Committee, College of Public Health, University of Iowa, Member

2003 - 2004 Instructional Development and Evaluation Committee, College of Public Health, University of Iowa, Member

2004 Seminar Committee, Department of Biostatistics, University of Iowa, Chair

2005 Computing Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member

2003 - 2006 Seminar Committee, Department of Biostatistics, University of Iowa, Member

2006 Seminar Committee, Department of Biostatistics, University of Iowa, Chair

2003 - 2007 Admissions and Recruiting Committee, Department of Biostatistics, University of Iowa, Member

2006 - 2007 Social Event Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member

2007 - 2008 Departmental Self-Study Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member

2007 - 2008 MS and PhD Curriculum Committee, Department of Biostatistics, University of Iowa, Member

2008 - 2009 Admissions and Recruitment Committee, Department of Biostatistics, University of Iowa, Member

2013 Ph.D. Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Member

2006 - 2014 Computing Committee, Department of Biostatistics, College of Public Health, University of Iowa, Chair

2010 - 2014 Computation and Informatics Committee, College of Public Health, University of Iowa, Member

2011 - 2014 Faculty Search Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member

2014 Faculty Search Committee, Department of Management Sciences, College of Business, University of Iowa, Member

2014 PhD Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Member

2003 - 2015 Masters Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Member

2014 - 2015 Faculty Search Committee, Department of Biostatistics, College of Public Health, University of Iowa, Chair

2014 - 2015 Faculty Search Committee, Department of Statistics and Actuarial Science, College of Liberal Arts and Sciences, University of Iowa, Member

2014 - 2015 Seminar Committee, Department of Biostatistics, University of Iowa, Member

2008 - 2017 Diversity Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member

2016 - 2017 Faculty Search Committee, Department of Biology, College of Liberal Arts, University of Iowa, Member

2016 - 2017	Faculty Search Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member
2016 - 2017	M.S. Core Exam Committee, Department of Biostatistics, University of Iowa, Chair
2017	CPH - Department Promotions Committee, Department of Biostatistics, University of Iowa, Chair
2017	CPH - Department Promotions Committee, Department of Biostatistics, University of Iowa, Member
2017 - 2018	Peer Review Committees for Promotion to Full Professor, Chair
2018	CPH - Post-Tenure Review Committee, Department of Health Management and Policy, University of Iowa, Member
2018	CPH - Post-Tenure Review Committee, Department of Biostatistics, University of Iowa, Member
2018	CPH - Post-Tenure Review Committee, Department of Community and Behavioral Health, University of Iowa, Member
2018	CPH - Post-Tenure Review Committee, Department of Epidemiology, University of Iowa, Member
2018	Masters Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Chair
2017 - 2019	Masters Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Member
2018 - 2019	Faculty Search Committee, Department of Epidemiology, College of Public Health, University of Iowa, Member
2018 - 2019	Faculty Search Committee, Department of Biomedical Engineering, College of Engineering, University of Iowa, Member
2019	CPH - Post-Tenure Review Committee, Department of Health Management and Policy, University of Iowa, Member
2019	Masters Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Chair
2020	CPH - Department Promotions Committee, Department of Biostatistics, University of Iowa, Member
Sep 2020 - Jan 2021	Promotion and Tenure Internal Peer Evaluation Committee #2, Member
2021	CPH - Department Promotions Committee, Department of Biostatistics, University of Iowa, Chair
2015 - 2022	Biostatistics Computing Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member
2021 - 2022	Promotion and Tenure Internal Peer Evaluation Committee #1, Chair
2012 - 2023	M.S. and Ph.D. Curriculum Committee, Department of Biostatistics, University of Iowa, Chair
2023	Promotion and Tenure Internal Peer Evaluation Committee, Chair
Sep 2022 - Aug 2023	M.S. Core Exam Committee (Summer 2023), Member
Sep 2022 - Aug 2023	M.S. Core Exam Committee (Winter 2024), Member
2024	Promotion and Tenure Internal Peer Evaluation Committee, Member

2025	M.S. Core Exam Committee (Summer 2025), Member
2001 - Present	Protocol Review and Monitoring Committee, Holden Comprehensive Cancer Center, Member
2014 - Present	Biostatistics Computing Committee, Department of Biostatistics, College of Public Health, University of Iowa, Member
2015 - Present	Ph.D. Comprehensive Examination Committee, Department of Biostatistics, University of Iowa, Member
2015 - Present	M.S. and Ph.D. Curriculum Committee, Department of Biostatsitics, University of Iowa, Member
2019 - Present	M.S. Core Exam Committee (Winter), Member