

## **AMY TRENTHAM-DIETZ, PhD, MS**

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School of Medicine and Public Health  
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### **PERSONAL STATEMENT**

As a cancer epidemiologist, Dr. Trentham-Dietz's research is focused on breast cancer prevention, early detection and outcomes. She employs novel and traditional epidemiologic approaches in her studies complemented by methods deriving from health services research and simulation modeling. She has approached breast cancer prevention and detection by focusing on 1) modifiable lifestyle factors including obesity, physical activity, and environmental factors to better understand breast cancer etiology and reveal avenues for prevention; 2) ductal carcinoma *in situ* (DCIS) of the breast which, often detected through mammography, is a non-obligate precursor for invasive breast cancer; and 3) simulation modeling of breast cancer to examine risk-based approaches to screening to improve the balance of benefits and harms of screening programs.

### **EDUCATION**

#### **PhD, Epidemiology**

University of Wisconsin-Madison, Madison, Wisconsin

#### **MS, Statistics with emphasis in Biostatistics**

University of Wisconsin-Madison, Madison, Wisconsin

#### **BS, Mathematics**

University of Puget Sound, Tacoma, Washington

### **PRESENT POSITION/APPOINTMENTS**

#### **Associate Director of Population Sciences & Community Engagement**

Carbone Cancer Center  
University of Wisconsin-Madison

#### **Professor**

Department of Population Health Sciences  
University of Wisconsin-Madison

### **PROFESSIONAL SOCIETY MEMBERSHIPS**

1999-present	American Society of Preventive Oncology
1998-present	Society for Epidemiologic Research

### **HONORS AND AWARDS**

Excellence in Teaching Award, Preventive Medicine Residency Program, UW-Madison School of

Medicine and Public Health  
Distinguished Service Award, American Society of Preventive Oncology  
Article of the Year, American Journal of Epidemiology (1 of 10)  
Research Committee Travel Award, Graduate School, UW-Madison  
Engage Digital Media Award, UW-Madison  
Teaching Academy Summer Institute Grant: Risk Taking in Teaching and Learning, UW-Madison  
Mid-Career Women Faculty Professional Development Seminar, Association of American Medical Colleges, Scottsdale, Arizona  
Teaching Academy Summer Institute Grant: Teaching and Learning in the New Millennium, UW-Madison  
Medical Education Development and Leadership Program: Art and Science of Teaching, UW-Madison Medical School  
Academic Staff Professional Development Award, UW-Madison  
Poster Award, Society for Epidemiologic Research  
New Investigator's Workshop, American Society of Preventive Oncology  
Phi Beta Kappa Honor Society, University of Puget Sound

### **RESEARCH SUPPORT (Selected)**

#### **Comparative Modeling of Precision Breast Cancer Control Across the Translational Continuum**

Principal Investigator: A. Trentham-Dietz, N. Stout, O. Alagoz, J. Mandelblatt, X. Huang, S. Lee, S. Plevritis, and H. de Koning  
Source: **NIH U01 CA253911**  
Total direct costs: \$9,152,630  
2020-2025

#### **Coordinating Center for the Breast Cancer and the Environment Research Program**

Principal Investigator: A. Trentham-Dietz  
Source: **NIH U01 ES026127**  
Total direct costs: \$3,000,000  
2015-2020

#### **Comparative Modeling: Informing Breast Cancer Control Practice and Policy**

Principal Investigators: A. Trentham-Dietz, J. Mandelblatt, D. Berry, S. Lee, S. Plevritis, and H. de Koning  
Source: **NIH/NCI CA199218**  
Total direct costs: \$4,000,000 (UW: \$576,733)  
2015-2020

#### **Tumor Microenvironment and Progression to Invasion after a Diagnosis of Ductal Carcinoma *in situ***

Principal Investigator: A. Trentham-Dietz  
Source: **Congressionally Directed Medical Research (Breast Cancer) Program Idea Award (Department of Defense), W81XWH-11-0214**  
Total direct costs: \$155,622  
2011-2014

#### **Comparative Modeling: Informing Breast Cancer Control Practice and Policy**

Principal Investigators: A. Trentham-Dietz, J. Mandelblatt, D. Berry, S. Lee, S. Plevritis, and H.

de Koning  
Source: **NIH U01 CA152958**  
Total direct costs: \$4,908,145  
2010-2015

**Breast Carcinoma *in situ*: Predicting Risk and Outcomes**

Principal Investigator: A. Trentham-Dietz  
Source: **NIH R01 CA067264**  
Total direct costs: \$2,440,427  
2009-2015

**The Vitamin D Pathway and Mammographic Breast Density in Postmenopausal Women**

Principal Investigator: A. Trentham-Dietz  
Source: **NIH R03 CA139548**  
Total direct costs: \$100,000  
2009-2012

**Total Xenoestrogen Body Burden in Relation to Mammographic Density, A Marker of Breast Cancer Risk**

Principal Investigator: A. Trentham-Dietz  
Source: **Congressionally Directed Medical Research (Breast Cancer) Program Synergistic Idea Award (Department of Defense), W81XWH-07-1-0522**  
Total direct costs: \$364,490  
2007-2011

**Quality of Life Before and After a Diagnosis of Breast Cancer in Older Women**

Principal Investigator: A. Trentham-Dietz  
Source: **Susan G. Komen Breast Cancer Foundation POP0504237**  
Total direct costs: \$199,980  
2005-2008

**Breast Cancer *in situ*: Recurrence and Quality of Life**

Principal Investigator: A. Trentham-Dietz  
Source: **NIH R01 CA67264**  
Total direct costs: \$1,250,000  
2002-2008

**SES, Environmental Factors and Colorectal Cancer Risk**

Principal Investigator: A. Trentham-Dietz  
Source: **NIH R03 CA099504**  
Total direct costs: \$100,000  
2002-2005

**PUBLICATIONS (Selected)**

<sup>M</sup> Faculty member mentored by Dr. Trentham-Dietz. <sup>P</sup> Postdoctoral trainee mentored by Dr. Trentham-Dietz.

<sup>G</sup> Graduate student with thesis/dissertation committee including Dr. Trentham-Dietz.

Underlined names indicate graduate students with Dr. Trentham-Dietz as major advisor.

1. Lowry KP, **Trentham-Dietz A**, Schechter CB, Alagoz O, Barlow WE, Burnside ES, Conant EF,

- Hampton JM, Huang H, Kerlikowske K, Lee SJ, Miglioretti DL, Sprague BL, Tosteson ANA, Yaffe M, Stout NK. Long-term outcomes and cost-effectiveness of breast cancer screening with digital breast tomosynthesis in the United States. *J Natl Cancer Inst* Jun 1; 112(6): 582-589, 2020.
2. Yeh JM, Lowry KP, Schechter CB, Diller LR, Alagoz O, Armstrong GT, Hampton JM, Leisenring W, Liu Q, Mandelblatt JS, Miglioretti DL, Moskowitz CS, Oeffinger KC, **Trentham-Dietz A**, Stout NK. Clinical Benefits, Harms, and Cost-Effectiveness of Breast Cancer Screening for Survivors of Childhood Cancer Treated With Chest Radiation: A Comparative Modeling Study. *Ann Intern Med*. Sep 1; 173(5): 331-341, 2020.
  3. Mora-Pinzon MCP, Chrischilles EA, Greenlee RT, Hoeth L, Hampton JM, Smith MA, McDowell BD, Wilke LG, **Trentham-Dietz A**. Variation in coordination of care reported by breast cancer patients according to health literacy. *Support Care Cancer* Apr 27(3): 857-865, 2019.
  4. Terry MB, Michels KB, Brody JG, Byrne C, Chen S, Jerry DJ, Malecki KMC, Martin MB, Miller RL, Neuhausen SL, Silk K, **Trentham-Dietz A** for the Breast Cancer and the Environment Research Program. Environmental exposures during windows of susceptibility for breast cancer: a framework for prevention research. *Breast Cancer Res* Aug 21(1): 96, 2019.
  5. Alagoz O, Ergun MA, Cevik M, Sprague BL, Fryback DG, Gangnon RE, Hampton JM, Stout NK, **Trentham-Dietz A**. The University of Wisconsin Breast Cancer epidemiology simulation Model: An Update. *Med Decis Making* 38(Supple 1): 99s-111s, 2018.
  6. Conklin MW, Gangnon RE, Sprague BL, Van Gemert L, Hampton JM, Eliceiri KW, Bredfeldt JS, Liu Y, Surachaicharn N, Newcomb PA, Friedl A, Keely PJ, **Trentham-Dietz A**. Collagen Alignment as a Predictor of Recurrence after Ductal Carcinoma In Situ. *Cancer Epidemiol Biomarkers Prev*. Feb;27(2):138-145, 2018. (Cover image)
  7. Gangnon RE, Stout NK, Alagoz O, Hampton JM, Sprague BL, and **Trentham-Dietz A**. Contribution of Breast Cancer to overall Mortality for US Women. *Med Decis Making* 38(Supple 1): 24s-31s, 2018.
  8. Jerry DJ, Shull JD, Hadsell DL, Rijnkels M, Dunphy KA, Schneider SS, Vandenberg LN, Majhi PD, Byrne C, **Trentham-Dietz A**. Genetic variation in sensitivity to estrogens and breast cancer risk. *Mamm Genome* 29(1-2): 24-37, 2018.
  9. Jewett PI<sup>6</sup>, Gangnon RE, Elkin E, Hampton JM, Jacobs EA, Malecki K, LaGro J, Newcomb PA, **Trentham-Dietz A**. Geographic access to mammography facilities and frequency of mammography screening. *Ann Epidemiol*. Feb;28(2):65-71, 2018.
  10. Mora-Pinzon MCP, Chrischilles EA, Greenlee RT, Hoeth L, Hampton JM, Smith MA, McDowell BD, Wilke LG, **Trentham-Dietz A**. Variation in coordination of care reported by breast cancer patients according to health literacy. *Support Care Cancer*. July 31, 2018. [Epub ahead of print]
  11. Shull J, Dennison K, Chack A, **Trentham-Dietz A**. Rat models of 17beta-estradiol-induced mammary cancer reveal novel insights into breast cancer etiology and prevention. *Physiol Genomics* 50(3): 215-234, 2018.

12. **Trentham-Dietz A**, Ergun MA, Alagoz O, Stout NK, Gangnon RE, Hampton JM, Dittus K, James TA, Vacek PM, Herschorn SD, Burnside ES, Tosteson ANA, Weaver DL, Sprague BL. Comparative effectiveness of incorporating a hypothetical DCIS prognostic marker into breast cancer screening. *Breast Cancer Res Treat* Feb; 168(1): 229-239, 2018.
13. Shiyanbola OO<sup>G</sup>, Arao RF, Miglioretti DL, Sprague BL, Hampton JM, Stout NK, Kerlikowske K, Braithwaite D, Buist DSM, Egan KM, Newcomb PA, **Trentham-Dietz A**. Emerging Trends in Family History of Breast Cancer and Associated Risk. *Cancer Epidemiol Biomarkers Prev*. Dec;26(12):1753-1760, 2017.
14. Denu RA<sup>P</sup>, Hampton JM, Currey A, Anderson RT, Cress RD, Fleming ST, Lipscomb J, Sabatino SA, Wu XC, Wilson JF, **Trentham-Dietz A**. Influence of patient, physician and hospital characteristics on the receipt of guideline-concordant care for inflammatory breast cancer. *Cancer Epidemiol* 40:7-14, 2016.
15. Hart V, Sprague BL, Lakoski SG, Hampton JM, Newcomb PA, Gangnon RE, **Trentham-Dietz A**. Trends in health related quality of life following a diagnosis of ductal carcinoma in situ. *J Clin Oncology*. 34(12): 1323-9, 2016.
16. Khadanga S, Lakoski SG, Harv V, Sprague BL, Ba Y, Hampton JM, Higgins ST, Ades PA, Newcomb PA, **Trentham-Dietz A**. Partnership status and socioeconomic factors in relation to health behavior changes after a diagnosis of ductal carcinoma in situ. *Cancer Epidemiol Biomarkers Prev* 25(1):76-82, 2016. PMID: PMC4713311.
17. Shiyanbola OO<sup>G</sup>, Sprague BL, Hampton JM, Dittus K, James TA, Herschorn S, Gangnon RE, Weaver DL, **Trentham-Dietz A**. Emerging trends in surgical and adjuvant radiation therapies among women diagnosed with ductal carcinoma in situ. *Cancer*. 2016 Sep 15;122(18):2810-8. PMID: PMC5014675.
18. **Trentham-Dietz A**, Kerlikowske K, Stout NK, Miglioretti DL, Schechter CB, Ergun MA, van den Broek JJ, Alagoz O, Sprague BL, van Ravesteyn NT, Near AM, Gangnon RE, Hampton JM, Chandler Y, de Koning HJ, Mandelblatt JS, Tosteson AN; Breast Cancer Surveillance Consortium and Cancer Intervention and Surveillance Modeling Network. Tailoring Breast Cancer Screening Intervals by Breast Density and Risk for Women Aged 50 Years or Older: Collaborative Modeling of Screening Outcomes. *Ann Intern Med*. 165(10): 700-712, 2016.
19. Gangnon RE, Sprague BL, Stout NK, Alagoz O, Weedon-Fekjaer H, Holford TR, **Trentham-Dietz A**. The contribution of mammography screening to breast cancer incidence trends in the United States: an updated age-period-cohort model. *Cancer Epidemiol Biomarkers Prev* 24(6): 905-12, 2015.
20. Sprague BL<sup>M</sup>, Gangnon RE, Hampton JM, Egan KM, Titus LJ, Kerlikowske K, Remington PL, Newcomb PA, **Trentham-Dietz A**. Variation in breast cancer risk associations by method of detection: results from a series of case-control studies. *Am J Epidemiol* 181(12): 956-69, 2015. *Selected as an Article of the Year (1 of 10)*.
21. Munsell MF, Sprague BL, Berry DA, Chisholm G, **Trentham-Dietz A**. Body mass index and cancer risk according to postmenopausal estrogen-progestin use and hormone receptor status. *Epidemiologic Rev* 36(1): 114-36, 2014. (Highly cited paper, in the Web of Science Core Collection)

22. **Trentham-Dietz A**, Sprague BL, Hampton JM, Miglioretti DL, Nelson HD, Titus LJ, Egan KM, Remington PL, Newcomb PA. Modification of breast cancer risk according to age and menopausal status: A combined analysis of five population-based case-control studies. *Breast Cancer Res Treat* 145(1): 165-75, 2014.
23. **Trentham-Dietz A**, Sprague BL, Klein R, Klein BEK, Cruickshanks KJ, Fryback DG, Hampton JM. Health-related quality of life before and after a breast cancer diagnosis. *Breast Cancer Res Treat* 109(2): 379-387, 2008.
24. **Trentham-Dietz A**, Newcomb PA, Hampton JM. Breast cancer risk factors and second primary malignancies among women with breast cancer. *Breast Cancer Res Treat* 105(2): 195-207, 2007.
25. **Trentham-Dietz A**, Nichols NB, Newcomb PA, Hampton JM. Weight change and risk of endometrial cancer. *Int J Epidemiology* 35(1): 151-158, 2006.
26. **Trentham-Dietz A**, Remington PL, Moinpour CM, Hampton JM, Sapp AL, Newcomb PA. Health-related quality of life in female long-term colorectal cancer survivors. *The Oncologist* 8:342-349, 2003.
27. **Trentham-Dietz A**, Newcomb PA, Storer BE, Remington PL. Risk factors for carcinoma *in situ* of the breast. *Cancer Epidemiol Biomarkers Prev* 9:697-703, 2000.
28. **Trentham-Dietz A**, Newcomb PA, Egan KM, Titus-Ernstoff L, Baron JA, Storer BE, Stampfer M, Willett WC. Weight change and risk of postmenopausal breast cancer (United States). *Cancer Causes Control* 11:533-542, 2000.
29. **Trentham-Dietz A**, Newcomb PA, Storer BE, Longnecker MP, Baron J, Greenberg ER, Willett WC. Body size and risk of breast cancer. *Am J Epidemiol* 145:1011-1019, 1997.
30. **Trentham-Dietz A**, Newcomb PA, Storer BE, Longnecker MP, Mittendorf R. Multiple births and risk of breast cancer. *Int J Cancer* 62:162-164, 1995.
31. **Trentham-Dietz A**, Newcomb PA, Marcus PM, Storer BE. The association of body size and large bowel cancer risk in Wisconsin women. *Cancer Causes Control* 6:30-36, 1995.

#### **INVITED RESEARCH PRESENTATIONS (Selected)**

February 2019	<i>Successes and Challenges to Population Modeling of Breast Cancer in the Cancer Intervention and Surveillance Modeling Network (CISNET)</i> , Workshop to Facilitate Cancer Systems Epidemiology Research, John Edward Porter Neuroscience Research Center, Bethesda, MD.
February 2019	<i>Global Study Concludes No Level of Alcohol is Safe: True for Breast Cancer?</i> Nutritional Sciences Seminar, Madison, WI.
October 2017	<i>Breast Density, Screening, and Prevention</i> . Community Education Event, University of Massachusetts, Amherst, MA.
October 2016	<i>Obesity and Breast Cancer Risk</i> . Speaker Forum, Wisconsin Breast Cancer Coalition. Milwaukee, WI.

**PROFESSIONAL SERVICE (Selected)**

2020	ad hoc Reviewer, Cancer Center Support Grants, NIH
2018	ad hoc Reviewer, BCHI (Biomedical Computing and Health Informatics) Study Section, NIH
2017	Reviewer, R13 Conference Grants Special Emphasis Panel, NIH
2015	Reviewer, Epidemiology Research Support Services Contracts, NIH/NIEHS
2011-2015	Study section member, EPIC (Epidemiology of Cancer) Study Section, NIH
2009	Reviewer, Breast Cancer Training Clinical & Experimental Therapeutics Panel, Department of Defense Breast Cancer Research Program
2009-present	Editorial Board Member, Cancer Epidemiology Biomarkers & Prevention
2007-present	<i>ex officio</i> , Annual Meeting Program Planning Committee, American Society for Preventive Oncology