

Diane M. Richardson
Curriculum Vitae
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Work Address

Thomas Jefferson University
1015 Walnut Street, Suite 115
Philadelphia, PA 19107
Office: 215.955.0107
Email: diane.richardson@jefferson.edu

Research Interests

Health services and outcomes research using large datasets; non-parametric estimation for predictive modeling; propensity score analysis of observational data.

Education

1972-1977 BS Drexel University (Chemistry)
1979-1985 PhD University of Illinois at Urbana-Champaign (Chemical Physics)
2004-2006 MS Rutgers University (Statistics)

Postgraduate Training and Fellowship Appointments

1983-84 Postdoctoral Fellow, Department of Chemistry, Cornell University, Ithaca, NY

Faculty Appointments

1984-1986 Faculty in Science, Division of Natural Science
 Simon's Rock College of Bard

1991-1993 Visiting Assistant Professor of Chemistry, Department of Chemistry
 Mount Holyoke College

1993-1995 Lecturer in Chemistry, Department of Chemistry
 University of Massachusetts

1997 Visiting Associate Professor, Department of Chemistry
 Drew University

2007-Present Research Instructor, Department of Health Policy
 Jefferson Medical College

Professional Experience

1988-1989 Technical Advisor, Center for Ecological Technology, Northampton, MA
1990-1991 Research Assistant, University of Connecticut Health Center, Farmington, CT
1996-1997 U.S. Scientific Marketing Manager, Hypercube, Inc., Gainesville, FLA
1997-1998 Scientific Applications Manager, Molecular Applications Group, Palo Alto, CA
1999-2004 Lead Scientific Software Analyst, Vertex Pharmaceuticals, Cambridge, MA
2006-2007 Project Director, Department of Health Policy, Thomas Jefferson University,

Philadelphia, PA

Awards, Honors, and Membership in Honorary Societies

1977 Phi Lambda Upsilon
1980 Exxon Graduate Fellowship, University of Illinois
1982 Excellence in Teaching Award, University of Illinois
1992 Sigma Xi

Memberships in Professional and Scientific Societies

American Statistical Association (Member 2004 - present)
International Society for Pharmacoeconomics and Outcomes Research (Member 2007 - present)

Teaching

GC 660 Introduction to Biostatistics, TJU College of Graduate Studies, Spring and Summer

Lectures by Invitation

June 6-10, 1995 New England Regional Molecular Modeling Workshop, Workshop Presenter
June 9-13, 1996 New England Regional Molecular Modeling Workshop, Workshop Presenter
June 8-12, 1997 New England Regional Molecular Modeling Workshop, Workshop Presenter

Bibliography

Publications, peer reviewed

1. Chandler, D., Richardson, D.M.: Theory of Orientational Pair Correlations in Molecular Fluids. *Journal of Physical Chemistry* 87: 2060-2064, 1983.
2. Richardson, D.M., Chandler, D.: Calculation of orientational pair correlation factors with the interaction site formalism. *Journal of Chemical Physics* 80: 4484-4487, 1984.
3. Chandler, D., Singh, Y., Richardson, D.M.: Excess electrons in simple fluids. I. General equilibrium theory for classical hard sphere solvents. *Journal of Chemical Physics* 81: 1975-1982, 1984.
4. Nichols, A.L. Chandler, D., Singh, Y., Richardson, D.M.: Excess electrons in simple fluids. II. Numerical results for the hard sphere solvent. *Journal of Chemical Physics* 81: 5109-5116, 1984.

Abstracts

1. Zhou Z, Hart R, Jornsten R, Richardson D, Moore D, Hayes NL and Nowakowski RS: *A molecular circuitry controlling regional gene expression in the brain*. Prog. No. 222.13/B6 Abstract Viewer, Atlanta, GA, Soc. for Neuroscience 2006 CD-ROM
2. Pizzi LT, Lee SP, Richardson DM, Cobb N, Leas B, Toner R, Pracilio V, Ballas SK, Ashkenazi A, Derk CT, Wang D, DeSousa E: *Perception of Breakthrough Pain in Patients with Chronic Painful Conditions*. *Value in Health* 10(6): A466, 2007. (Presented at the International Society for Pharmacoeconomics and Outcomes Research 10th Annual European Congress, Dublin Ireland, October 20-23, 2007)
3. Pizzi LT, Lee SP, Richardson DM, Cobb N, Leas B, Toner R, Pracilio V, Ballas SK, Ashkenazi A, Derk CT, Wang D, DeSousa E: *Resource Utilization Due to Breakthrough Pain in Patients with Chronic Painful Conditions*. *Value in Health* 10(6): A465, 2007. (Presented at the International Society for Pharmacoeconomics and Outcomes Research 10th Annual European Congress, Dublin Ireland, October 20-23, 2007)

Chaudhari PK, Richardson DM, Singh VP, Pizzi LT: *Impact of Nighttime Pain on Sleep Quality in Patients with Chronic Painful Conditions*. Value in Health 11(3), 2008. In Press. (Presented at the International Society for Pharmacoeconomics and Outcomes Research 13th Annual International Meeting, Toronto, ON Canada, May 3-7, 2008)

4. Bain KT, Richardson DM, Liao D, Diamond J, Novielli KD, Goldfarb NI: *Prescription Drug Utilization Among a Nationally Representative Sample of Medicare Beneficiaries with Heart Failure*, Value in Health 11(3), 2008. In Press. (Presented at the International Society for Pharmacoeconomics and Outcomes Research 13th Annual International Meeting, Toronto, ON Canada, May 3-7, 2008)
5. Liao D, Pizzi L, Richardson DM, Singh V: *Complementary and Alternative Medicine and Health Care Utilization in Patients with Non-Cancer Chronic Pain*, Value in Health 11(3), 2008. In Press. (Presented at the International Society for Pharmacoeconomics and Outcomes Research 13th Annual International Meeting, Toronto, ON Canada, May 3-7, 2008)

Books

1. Laboratory Exercises Using HyperChem® by Mary L. Caffery, Paul A. Dobosh, and Diane M. Richardson, Hypercube, Inc., Gainesville, FL, 1998.

Work in Progress - selected

Predicting Risk of Hospitalization for a large regional health system using regression tree boosting. Manuscript in preparation.

Medication Use and Mortality in the elderly Medicare Population with Heart Failure: a Propensity Score Analysis. Analysis of the use of heart failure medications and mortality among elderly Medicare beneficiaries with heart failure using the 2002 Medicare Current Beneficiary Survey (MCBS) Cost and Use files, with adjustment for the propensity to receive treatment. Manuscript in preparation.

Support

National Science Foundation Division of Undergraduate Education. "Regional Molecular Modeling Workshop for College Teachers". Co-Investigator and workshop presenter. National Science Foundation funding was provided by DUE-9455102 1995-1998. \$18,000

Hughes Medical Institute Research Grant. "Spectroscopic and Molecular Modeling Studies of Solvation and Complexation Equilibria"; \$12,000 for 1991-1993.

General Electric Foundation Grant, "Solvent Dependence of Complexation Constants by Conductance Titrimetry"; \$5,000 for 1992.

Mount Holyoke College, Academic Computing Grants for Teaching Innovation, "Introduction of Molecular Modeling in the Chemistry Curriculum"; \$12,000 for 1992.