

BIOGRAPHICAL SKETCH

NAME Peter S. Thorne	POSITION TITLE Professor and Head, Occupational and Environmental Health Director, Environ. Health Sciences Research Center		
eRA COMMONS USER NAME (credential, e.g., agency login) PTHORNE			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Wisconsin, Madison, WI	B.S.	1978	Chemical Engineering
University of Wisconsin, Madison, WI	M.S.	1980	Biomedical Engineering
University of Wisconsin, Madison, WI	Ph.D.	1984	Environ. Toxicology
University of Pittsburgh, Pittsburgh, PA	Post-Doc	1984-87	Immunotoxicology

A. Personal Statement

Dr. Thorne is the Director of the Environmental Health Sciences Research Center and Director of the Pulmonary Toxicology Facility Core. He has served as PI of many pulmonary biology and inhalation toxicology studies of chemical and biological agents and their associated lung diseases. He has performed research using in vitro models and whole animal models to elucidate mechanisms and genomics of responsiveness. He has lead complex population-based epidemiologic studies that embrace community engagement in the research. Dr. Thorne has extensive experience in translating science to the lay public which includes providing student laboratory experiences, speaking to community groups, working with diverse and underserved populations, interacting with government officials and delivering educational resources such as public radio shows, videos and podcasts, written materials for widespread distribution, and reports.

B. Positions and Honors**Positions**

1978-1982 Research Assistant and Teaching Assistant in Veterinary Science, Chemical Engineering, and Environmental Toxicology, University of Wisconsin, Madison, WI

1982-1984 National Research Service Award trainee in Environmental Toxicology, University of Wisconsin

1984-1987 Research Associate Immunotoxicologist, University of Pittsburgh, Pittsburgh, PA

1987-1988 Assistant Professor of Industrial Environmental Health Sciences, University of Pittsburgh

1988-1992 Assistant Professor of Toxicology and Industrial Hygiene, University of Iowa, Iowa City, IA

1992-1997 Associate Professor of Toxicology and Industrial Hygiene, University of Iowa

1993-2000 Deputy Director, Environmental Health Sciences Research Center, University of Iowa

1994-present Director, Pulmonary Toxicology Facility, University of Iowa

1997-present Professor of Toxicology, College of Medicine (1997-99), College of Public Health, (1999-), University of Iowa

1997-present Professor of Environmental Health (secondary appt.), College of Engineering, Univ. of Iowa

2001-present Director, Environmental Health Sciences Research Center, University of Iowa

2009-2010 Acting Head, Dept of Occupational and Environmental Health, University of Iowa

2010-present Head, Dept of Occupational and Environmental Health, University of Iowa

Honors

1993-present Member, NIH Special Reviews for NIEHS P20 and P30 Centers, R03, R01, and P01 proposals

1996 Member, NIOSH External Review, Metal Working Fluids Criteria Document

1997 Chair, NIH Special Review, P01 NIEHS grants

1998 Member, NIEHS-FDA-EPA Interagency Coord. Cmte on the Validation of Alternative Methods

1998 (6 mo) Visiting Professor, University of Wageningen, Dept. Environ. Occup. Health, Netherlands

1999-2002 Member, NIOSH Safety and Occupational Health Study Section

2000-2002 President, Society of Toxicology Occupational Health Specialty Section

2000-present Member, Science Advisory Panel, Western Canada Study of Animal and Human Health

2001-2003 Member, University of Utrecht, The Netherlands, Scientific Advisory Board

2001 Chair, NIOSH Safety and Occupational Health Study Section

2003 Whitehead Memorial Lecturer, Children's Hospital of Pittsburgh, UPMC, PA
 2003-2007 Member, National Advisory Environmental Health Sciences Council, NIH
 2004 Recipient of the Thomas Bedford Memorial Prize, British Occupational Hygiene Society
 2006-2007 Visiting Professor, University of Utrecht, Institute for Risk Assessment Sciences, Netherlands
 2007 Visiting Professor, University of Aarhus, Dept. Envir. Occup. Medicine, Denmark

C. Selected Peer-Reviewed Publications

1. Hadina S, Weiss JP, McCray PB Jr., Kulhankova K, Thorne PS. MD-2-dependent pulmonary immune responses to inhaled lipopoligosaccharide: effect of acylation state of LOS. *Am J Respir Cell Mol Biol* 38(6):647-654, 2008. PMID: PMC2396245
2. Grassian VH, O'Shaughnessy PT, Adamcakova-Dodd A, Pettibone JM, Thorne PS. Titanium dioxide nanoparticles: Grassian et al. respond. *Environ Health Perspect* 116(4):A152-3, 2008.
3. Pettibone JM, Adamcakova-Dodd A, Thorne PS, O'Shaughnessy PT, Weydert JA and Grassian VH. Inflammatory response of mice following inhalation exposure to iron and copper nanoparticles. *Nanotoxicology*, 2(4):189-204, 2008.
4. Trompette A, Divanovic S, Visintin A, Blanchard C, Hegde RS, Madan R, Thorne PS, Wills-Karp M, Gioannini TL, Weiss JP, Karp CL. Functional mimicry between the major house dust mite allergen, Der p 2, and the TLR4 complex protein, MD-2. *Nature* 457(7229):585-8, 2009. doi:10.1038/nature07548. PMID: 19060881
5. Thorne PS, Cohn R, Mav D, Arbes Jr. SJ, Zeldin DC. Predictors of endotoxin levels in U.S. Housing. *Environ Health Perspect*, 117(5):1-10, 2009. doi:10.1289/ehp.11759. [Online Oct 16 2008].
6. Thorne PS, Ansley A, Perry SS. Concentrations of bioaerosols, odors and hydrogen sulfide inside and downwind from two types of swine livestock operations. *J Occup Environ Hyg* 6(4):211-220, 2009. doi: 110.1080/ 15459620802729184 [Online Jan 2009].
7. Kulhankova K, George CLS, Kline JN, Snyder JM, Darling M, Field EH, Thorne PS. Early Life Co-Administration of Cockroach Allergen and Endotoxin Augments Pulmonary and Systemic Responses. *Clin Exper Allergy* 39(7):1069-79, 2009. doi:10.1111/j.1365-2222.2009.03254.x
8. Norström, K, Czub, G, McLachlan, MS, Hu, D, Thorne, PS, Hornbuckle, KC. External exposure and bioaccumulation of PCBs in humans living in a contaminated urban environment. *Environ. Int.* [Online Apr 23, 2009].
9. Murthy S, Adamcakova-Dodd A, Perry SS, Tephly LA, Keller RM, Metwali N, Meyerholz DK, Wang Y, Glogauer M, Thorne PS, Carter AB. Modulation of reactive oxygen species by Rac1 or catalase prevents asbestos-induced pulmonary fibrosis. *Am J Physiol Lung Cell Mol Physiol* 297(5):L846-55, 2009.
10. Noss I, Wouters IM, Bezemer G, Metwali N, Sander I, Raulf-Heimsoth M, Heederik DJJ, Thorne PS and Doekes G. β -(1,3)-glucan exposure assessment by passive airborne dust sampling and new sensitive immunoassays. *Appl Env Microbiol* 76(4):1158-1167, 2010.
11. Semple S, Devakumar D, Fullerton DG, Thorne PS, Metwali N, Costello A, Gordon SB, Manadhar DS, and Ayres JG. Airborne endotoxin concentrations in homes burning biomass fuel. *Environ Health Perspect*, 22 Mar 2010, doi:10.1289/ehp.0901605, 2010.
12. Manzel LJ, Shi L, O'Shaughnessy PT, Thorne PS and Look DC. Cigarette smoke inhibition of the NF- κ B-dependent response to bacteria in the airway. *Am J Respir Cell Mol Biol*. 2010 Mar 26. [Epub ahead of print] PubMed PMID: 20348206.
13. Noss I, Doekes G, Sander I, Heederik DJJ, Thorne PS, Wouters IM. Passive airborne dust sampling with the electrostatic dustfall collector: optimization of storage and extraction procedures for endotoxin and glucan measurement. *Ann Occup Hyg*, in press, 2010.
14. Thorne PS, Perry SS, Saito R, O'Shaughnessy PT, Mehaffy J, Metwali N, Keefe T, Donham KJ and Reynolds SJ. Evaluation of the *Limulus* amebocyte lysate and recombinant Factor C assays for assessment of airborne endotoxin. *Appl. Environ. Microbiol.* in press, 2010.
15. Hu X, Adamcakova-Dodd A, Lehmler HJ, Hu D, Korwel I, Hornbuckle KC,, Thorne PS. Time course of congener uptake and elimination in rats after inhalation of airborne polychlorinated biphenyl(PCB) mixtures. *Environ. Sci. Technol.*, in press, 2010.

D. Research Support

ONGOING (Selected)

NIEHS P42 ES013661 (LW Roberston, PI) Superfund Basic Res. Program: Semi-volatile PCBs: Sources, Exposures, Toxicities - Char. Exposures of Urban and Rural Cohorts to Airborne PCBs (Project Director) - Inhalation Toxicology Core (Core Director) - Research Translation Core (Core Co-Director)	04/01/10-03/31/15
NIEHS: P30 ES05605 (PS Thorne, PI) (continuation-Center begun 09/29/90) Environmental Health Science Research Center (EHSRC) - Administrative Core (Center Director) - Pulmonary Toxicology Facility (Facility Director)	04/01/07-03/31/12
NIAID: K23 AI053572 (K Pacheco, PI) Study of Genetics, Endotoxin, and Allergen University of Iowa Collaborator/Mentor (PS Thorne, PI)	06/01/03-05/31/11
NIAID R01 AI059618 (C Rose, PI) Study of Genetics, Endotoxin, and Allergen University of Iowa Subcontract (PS Thorne, PI)	05/01/05-12/31/10
NIEHS 1 R01 ES015981-01 (AB Carter, PI) Lung Inflammation and Fibrosis after Asbestosis Exposure is Regulated by Rac1	09/10/07-06/30/12
NIOSH/NIH R01 ES016169 (V Grassian, PI) An Integrated Approach Toward Understanding the Toxicity of Inhaled Nanomaterials	04/01/08-03/31/12
NIEHS 1 R01 ES014871-01 (AB Carter, PI) Hydrogen Peroxide and Asbestos	12/01/07-11/30/12
ARRA 1R01HL085868-01A2 (PK Singh, PI) Gallium, a Potential New Therapeutic for CF Airway Infections. U Iowa PI, PS Thorne	07/01/09-06/30/11
5R01OH008938-02 (H Glindmeyer, PI) Respiratory Effects in Workers From Post-Katrina Related Airborne Exposures PS Thorne, Consultant	06/01/07-05/31/12

COMPLETED (Selected)

NIEHS: 1 R01 ES11392 (PS Thorne, PI) Exposure Intervention in a Rural Pediatric Asthma Cohort	09/30/01-07/31/07
EPA RD 83171701: (V Grassian, PI) Impacts of Manufactured Nanomaterials on Human Health & Environment – A Focus on Nanoparticulate Aerosol and Atmospherically Processed Nanoparticulate Aerosol	10/01/04-09/30/08
EPA Multi-Ethnic Study of Atherosclerosis (J Kaufman, PI) Subproject: Spatial Investigation of Sources, Composition, and Long-Term Health Effects of Coarse Particulate Matter in the Multi-Ethnic Study of Atherosclerosis (MESA) Cohort PS Thorne, PI of UI Subcontract	07/01/08-06/30/10