

CURRICULUM VITAE

Date of revision: August 24, 2018

Name: Carrie Redlich, M.D., M.P.H.

Position: Professor, Department of Medicine

School: Yale University School of Medicine

Education:

B.A. Williams College, 1978
 M.D. Yale University School of Medicine, 1982
 M.P.H. Yale University School of Medicine, 1988

Career/Academic Appointments:

1982-83 Resident, Dept. of Surgery, Yale University School of Medicine, New Haven, CT
 1983-86 Resident, Dept. of Medicine, Yale University School of Medicine, New Haven, CT
 1986-87 Fellow, Occupational Medicine, Yale University School of Medicine, New Haven, CT
 1986-87 Graduate Student, Yale University School of Public Health, New Haven, CT
 1987-90 Fellow, Division of Pulmonary and Crit Care Med, and Dept. Envir. Health, Univ. of Washington, Seattle, WA.
 1990-96 Assistant Professor of Medicine, Yale University School of Medicine, Occupational and Environmental Medicine (OEM); and Section of Pulmonary and Critical Care Medicine, New Haven, CT
 1990-Present Staff Physician, Yale-New Haven Hospital, New Haven, CT
 1996-2004 Associate Professor of Medicine, Yale University School of Medicine, Yale OEM Program; and Section of Pulmonary and Critical Care Medicine, New Haven, CT
 2004-Present Professor of Medicine, Yale University School of Medicine, Yale OEM Program; and Section of Pulmonary and Critical Care Medicine, New Haven, CT
 2016-Present Professor of Epidemiology, Yale University School of Public Health, Department of Environmental Health Sciences, New Haven, CT

Administrative Positions:

2010-17 Co-Director Occupational Health Services, Norwalk Hospital
 2011-Present Director, Yale Occupational and Environmental Medicine Program
 2013-Present Yale-YNHH OEM fellowship / Preventive Medicine Residency Program Director
 2013-Present Director, Clinical Services, Yale Occupational and Environmental Medicine Program

Licensure and Board Certifications:

State of Connecticut, 1984 (#025863)
 State of Washington, 1986 (#252-09-0024803)
 Drug Enforcement Agency License (#AR3011323);
 State CT Controlled Substance License (CSP.18942)
 Diplomate, National Board of Medical Examiners, 1984
 American Board of Internal Medicine, Internal Medicine, 1986 (#107865)

American Board of Preventive Medicine; Occupational Medicine, 1990 (#22642)
American Board of Internal Medicine, Pulmonary Subspecialty, 1990(#107865)
Re-certification, 2002

Professional Honors & Recognition:

2014-15 Drexel University Executive Leadership in Academic Medicine Fellowship
2014 ConnectiCosh Irving J. Selikoff Award
2012 NIOSH Alice Hamilton Award Honorable Mention, Education and Guidance Category
2007 Michigan Industrial Hygiene Society Best Paper Award
2001-12 Best Doctors in New York, Pulmonary Medicine: Occupational and Environmental Lung Diseases, New York Magazine
2000-10 NIH:NIEHS K24 Midcareer Award
1997-00 ALA Clinical Investigator Award
1995-99 NIH:NHLBI Clinical Investigator Award
1993-95 VA Associate Investigator Award
1992-95 Donaghue Foundation New Investigator Award
1989-91 American Lung Association, National Research Fellowship Award
1982 MD, cum laude Yale University School of Medicine
1978 BA, magna cum laude with highest honors, Williams College
1977 Phi Beta Kappa, Williams College

Grant History

Current Grants

Agency: CDC/NIOSH
1 T01 OH008607-08

Title: "Training of Occupational and Environmental Medicine Physicians"

PI: Carrie Redlich, MD

Project Period: 7/16-6/21

Agency: State of Connecticut Occupational Medicine Clinics

Title: "State of Connecticut, Occupational Clinics Bill"

PI: Carrie Redlich, MD

Project Period: 7/17-6/18

Agency: Heinz Endowments

Title: "Airborne exposures and health effects related to natural gas compressor stations located in residential communities: community-based participatory research"

PI: Carrie Redlich, MD

Project Period: 6/16-1/19

Agency: CDC/NIOSH

1R01OH010941-01A1

Col. Carrie Redlich, MD

Title: "Deciphering Occupational Asthma Pathogenesis Caused by Isocyanate"

Project Period: 4/16-3/20

Past Grants

Agency: NIH/NIA
R01 AG02629-06 (Stanford University Subaward)
Title: "Disease, Disability, and Death in an Aging Workforce"
PI subcontract: Carrie Redlich, MD
Project Period: 7/11-6/16

Agency: NIOSH/CDC
1-R01-OH-009939-01A1 (**Co-I**) (Stanford University Subaward)
Title: "Occupational Exposure to PM_{2.5} and Cardiovascular Disease"
Col: Carrie Redlich, MD
Project Period: 7/11-6/15

Agency: SIU Phase II Clinical Trial:
2R42ES018021
Title: "D-Methionine to reduce noise induced hearing loss"
Col: Carrie Redlich, MD
Project Period: 3/11-2/15

Agency: NIH-NIEHS 1R41ES018021
Title: "Biomonitoring Methylene Diphenyl Diisocyanate (MDI) exposure"
Col: Carrie Redlich, MD
Project Period: 5/12-7/15

Agency: NIOSH- 1 R21 OH010438-01A1
Title: "Biochemistry connecting glutathione and isocyanate asthma"
Col.: Carrie Redlich, MD
Project Period: 10/13-09/15

Agency: CDC/NIOSH R01 OH 009375-02
Title: "Isocyanate Skin and Air Exposure: Assessment and Control"
PI: Carrie Redlich, MD
Project Period: 9/09-8/14 (NCE) 2/28/15

Agency: CPWR OH 009762-02
Title: Assessment and Prevention of Isocyanate Exposures in the Construction Industry"
PI: Carrie Redlich, MD
Effort, 0.7 calendar months
Project Period: 10/09-9/14(NCE) 2/28/15

Agency: AOEC-Case Study in Environmental Medicine (CSEM)
Title: "Development of Evidence-Based Educational Material on the Health Risks of Indoor and Outdoor Contaminants in the Gulf Coast"
PI: Carrie Redlich, MD
Project Period: 2012-2013

Agency: American Chemistry Council Gift:
Title: "Transferability of aliphatic isocyanates"
PI: Carrie Redlich, MD
Project Period: 1/10-6/13

Agency: Air Force District of Washington
Title: "Surveillance and Prevention of Isocyanate Exposure during Air Force Applications"
PI: Carrie Redlich, MD
Project Period: 8//09-3/10

Agency: CPWR-NIOSH Pilot Grant
Title: "Isocyanate Exposures in the Construction Industry"
PI: Carrie Redlich, MD
Project Period: 3//09-2/10

Agency: Donaghue Foundation
Title: "Reducing Isocyanate Exposure in the CT Auto body Industry"
PI: Carrie Redlich, MD
Project Period: 7/06-6/09

Agency: NIH-NIEHS: K24
Title: "Program for Patient-Oriented Environmental Health Research and Training"
PI: Carrie Redlich, MD
Project Period: 12//05-11//10

Agency: CDC-NIOSH: R01
Title: "Health and Socioeconomic Consequences of Nonspecific Building Related Illness"
PI: Carrie Redlich
Project Period: 4//01-10//04

Agency: NIH-NIEHS: K24
Title: "Program for Patient-Oriented Environmental Health Research and Training"
PI: Carrie Redlich, MD
Project Period: 7/00 – 6/05

Agency: ALA Clinical Investigator Award
Title: "T Cells in the Pathogenesis of Isocyanate Asthma"
PI: Carrie Redlich, MD
Project Period: 1997-2001

Agency: Yale CCC
Title: "Effect of the CARET Intervention on Serum Carotenoids, Retinoids and Lipoproteins"
PI: Carrie Redlich, MD
Project Period: 8/96-7/97

Agency: NIOSH / NIH-NCI: RO1
Title: "Biomarkers of Disease and Vitamin A in Asbestos Workers"
PI: Carrie Redlich, MD
Project Period: 7/95-6/97

Agency: NIH-NHLBI: KO8
Title: "Vitamin A Modulation of Environmental Lung Injury"
PI: Carrie Redlich, MD
Project Period: 12/94 - 7/00

Agency: VA Associate Investigator Award
Title: "Characterization and Modulation of Radiation- Induced Lung Injury"
PI: Carrie Redlich, MD
Project Period: 10/93 - 9/95

Agency: Yale School of Medicine Dean's Young Faculty Award
Title: "Vitamin A Modulation of Environmental Lung Injury"
PI: Carrie Redlich, MD
Project Period: 7/93 - 6/94

Agency: Donaghue Medical Foundation
Title: "Characterization and Modulation of Radiation-Induced Lung Injury"
PI: Carrie Redlich, MD
Project Period: 9/92 - 8/95

Agency: NIH-NIEHS
Title: "New serodiagnostics for isocyanate exposure: A Major Cause of Occupational Asthma"
Col: Carrie Redlich, MD
Project Period: 4/09 -3/11

Agency: CDC-NIOSH R01
Title: "Longitudinal Studies of Isocyanate Asthma in Autobody Shops"
PI: Carrie Redlich
Project Period: 9/30/02-8/31/07

Agency: NIH-NHLBI: R01
Title: "Isocyanate Antigens and T-cells that Cause Asthma"
PI: Carrie Redlich, MD
Project Period: 5/8/02-4/30/06

Agency: NIH-NHLBI: R01
Title: "Human Lung γ/δ T Cell Populations in the Human Lung"
PI: Carrie Redlich, MD
Project Period: 9/01-8/05

Agency: NIH-NCI
Title: Fred Hutchinson, "CARET"
Col: Carrie Redlich, MD
Project Period: 6/99-5/00

Invited Speaking Engagements, Presentations Not Affiliated With Yale:

Professional Service

Peer Review Groups, Study Sections, Advisory Boards (member):

2016-present U.S. Department of Labor Advisory Board on Toxic Substances and Worker Health, Chair Part B Lung subcommittee
2016-present American Cancer Society, Peer Review Committee, Physician Training in Cancer Prevention Programs
2015-present Department of Veterans Affairs, Office of Research and Development, Executive Committee, CSP #595: Pulmonary Health and Deployment to Southwest Asia and Afghanistan
2015-present ATS-ERS Taskforce on the Occupational Burden Lung Disease, Co-Chair
2014-16 NIOSH - ATS Work Asthma Domain Expert Committee (WADE) to develop a Clinical tool for implementation in electronic medical records
2013-14 NIOSH / US Dept of Justice: James Sadroga 9/11 Health and Compensation Act, Occupational Health Consultant, Victims Compensation Fund
2013 Institute of Medicine, National Academy Sciences, Government Accountability Office Workshop on the World Trade Center Health Program List of Covered Conditions
2011-12 U.S. EPA, Science Advisory Board (SAB), Panel for the review of EPA's Toxicological Review of Libby Amphibole Asbestos
2012 NIOSH: External Review of Division of Respiratory Disease Studies, FSB
2013 NIOSH: Cooperative Research Agreements Related to the World Trade Center Health Program (U01) peer review panel
2011-13 Firmenich Co, Consulting Medical Experts Group, Consultant,

2010 NIOSH: External Review of TMBB/HELD Program: Chronic Inflammatory and Immune Diseases
 2009-11 American Thoracic Society: Impairment and Disability: An ATS expert panel, Panel member
 2008-11 Food and Drug Administration (FDA), Pulmonary Advisory Committee
 2007-10 NIH – NIEHS: Environmental Health Sciences Review Committee
 2006-08 National Research Council, National Academy Sciences: Beryllium Alloy Exposures, Committee Member, Co-Author
 2005-12 American Chemistry Council Diisocyanate Panel - NIOSH Research Collaboration Program: Medical Surveillance Task Group, Consultant
 2005-08 American College of Chest Physicians: Diagnosis and Management of Work related Asthma: An ACCP Evidence-based Clinical Practice Guideline, Panel member, co-author
 2006-07 American Medical Association: Guides to Evaluation of Impairment and Disability, 5th edition, consultant, 2000-2001; 6th edition, Consultant
 2001-03 Institute of Medicine, National Academy Sciences: Gulf War and Health Committee Member
 1999 NIH-NHLBI: Special Emphasis Panel Review: Retinoid Treatment in Emphysema
 1997-02 CDC-NIOSH NORA: Cancer Research Methods Team, Member
 1996-Present Chubb Group of Insurance Companies: Consultant, teaching on health risks of new biomedical products, (through YOEMP)
 1996 -00 CDC - NIOSH: Occupational Health and Safety Study Section, Member
 1996, 01 NIH - GCRC: Special Emphasis Panel Review Committees,
 1995-05 NIH - GCRC: Grant reviewer General Clinical Research Centers
 1995-00 ATSDR: Dept of Health and Human Services, Peer Review Grant Process
 1994 Institute of Medicine, National Academy Sciences, Committee to Advise National Library of Medicine, Toxicology and Environmental Health Information Program
 1993 NIH - NCI / NHLBI: Working Group on Pulmonary Complications Related to Breast Cancer Therapy
 1993 NIH - NCI / NIEHS: Review Committee for RFA "Biotechnology Transfer to Epidemiologic Studies: Molecular / Biochemical Epidemiology
 1992 CDC - NIOSH: Special Training Grant Review Committee, adhoc, (1996,1999, 2004)

Journal Service:

Reviewer

American Journal of Industrial Medicine
 American Journal of Respiratory and Critical Care Medicine
 Chest
 Journal of Allergy and Clinical Immunology
 Journal of Occupational and Environmental Medicine
 Lancet
 European Respiratory Journal

Professional Service for Professional Organizations:

American Thoracic Society (ATS)

2016-Present ATS Environmental Health Policy Committee
 2013-15 ATS Board of Directors
 2013-15 Chair, Environmental, Occupational and Population Health (EOPH) Assembly
 EOPH
 2015-16 Nominating Committee Chair
 2005-08 Planning Committee, Member, 1998-2008; Chairperson
 2002-07 Nominating Committee Member
 2006-07 Environmental Health Policy Committee, Member
 1994-99 Program Planning Committee, Member, Chairperson

Association of Occupational and Environmental Medicine Clinics (AOEC)

2011-14 Board of Directors

Yale University Service:

University Committees

2014-Present Provost's Safety Committee Yale University

2012-15 Yale University School of Public Health, Provost's Standing Advisory and Appointments Committee

2012-14 Working Group on Personal Protective Equipment

2009-16 Yale School of Forestry and Environmental Studies, Provost's Standing Advisory and Appointments Committee

2003-06 Advisory Committee on Environmental Management (ACEM), Review of Green Fund Proposals

Medical School Committees

2015-present Committee on the Status of Women in Medicine

2014-15 Adhoc Task Force on Gender Equity

2011-14 Senior Faculty Allotment Committee

2010-11 Inquiry Committee, Allegation of Academic Fraud

2005-08 Brown-Coxe Funds and Fellowships Committee

Department of Medicine Committees

2015-Present Appointments and Promotions Committee

1999-12 Intern Selection Committee

1994-95 Appointments and Promotions Committee

Public Service:

2009-Present NHP (Neighborhood Health Project) – Clinic attending

1996-05 Eli Whitney Museum, Member, Board of Directors

1992-02 New Haven Youth Soccer Association, Member, Board of Directors, coach, girls' coordinator, coaching development

Societies:

Fellow, American College of Chest Physicians

Fellow, American College of Occupational and Environmental Medicine

Member, American Thoracic Society

Member, Association of Occupational and Environmental Clinics

BIBLIOGRAPHY:

Peer-reviewed Original Research/Scholarship

1. Skovby F, Kraus J, **Redlich CA**, Rosenberg LE. Immunochemical studies on cultured fibroblasts from patients with homocystinuria due to cystathionine beta-synthase deficiency. Am J Hum Genet 1982; 34: 73-83.

2. **Redlich CA**, Sparer J, Cowan D, Beckett W, Miller H, Cherniack M, Cullen M. Outbreak of Occupational Hepatitis--Connecticut. Morbidity and Mortality Weekly Report. CDC 1987; 36:101-102.

3. **Redlich CA**, Beckett WS, Sparer J, Cowan D, Miller H, Cullen MR. Liver disease associated with occupational exposure to the solvent dimethylformamide. *Ann Int Med* 1988; 108:680-86.
4. **Redlich CA**, West AB, Fleming L, True LD, Cullen MR, Riely CA. Clinical and pathologic characteristics associated with occupational exposure to dimethylformamide. *Gastroenterology* 1990; 99:748-57.
5. Omiecinski CJ, **Redlich CA**, Costa P. Induction and developmental expression of cytochrome P450IA1 mRNA in rat and human tissues: Detection by the polymerase chain reaction. *Cancer Res* 1990; 50:4315-21.
6. Fleming LE, Shalat SL, **Redlich CA**. Liver injury in workers exposed to dimethylformamide. *Scand J Work Envir Health* 1990; 16:289-92.
7. Checkoway H, **Redlich CA**. Toxic exposures in the workplace: Early monitoring may prevent occupational disease. *Wash Pub Health* 1990; 8:29-30.
8. Cullen MR, Pace PE, **Redlich CA**. The experience of the Yale Occupational and Environmental Medicine Clinics with multiple chemical sensitivities, 1986-91. *Toxicol Ind Health* 1992; 8(4):15-19.
9. Cullen MR, Solomon L, Pace PE, Buckley P, Duffy T, McPhedron P, Kelsey KT, **Redlich CA**. Morphologic, biochemical and cytogenetic studies of bone marrow and circulating blood cells in painters exposed to ethylene glycol ethers. *Environ Res* 1992; 59:250-64.
10. Schwartz DA, **Redlich CA**. Biomarkers in occupational lung disease. *Semin Resp Med* 1993; 14:167-180.
11. **Redlich CA**, Delisser H, Elias JA. Retinoic acid inhibition of TGF- β -induced collagen production by human lung fibroblasts. *Am J Respir Cell Mol Biol* 1995;12:287-95.
12. **Redlich CA**, Blaner W, Carter D, Wirth J, Tanoue L, Cullen MR. Vitamin A chemoprevention of lung cancer: A short-term biomarker study. *Adv in Exper Med Biol*, 1995;375:287-95.
13. Brodtkin CA, Daniell W, Checkoway H, Echeverria D, Johnson, J, Wang K, Sohaehae R, Green D, **Redlich CA**, Gretch D, Rosenstock L. Hepatic ultrasonic changes in workers exposed to perchloroethylene. *Occup Environ Med* 1995; 52:679-85.
14. Cullen MR, **Redlich CA**, Beckett WS, Weltermann B, Sparer J, Jackson G, Ruff T, Rubinstein E, Holden W. Feasibility study of respiratory questionnaire and peak flow recordings in autobody shop workers exposed to isocyanate containing spray paint. *Occup Med* 1996; 46:197-04.
15. Cullen MR, **Redlich CA**. Significance of individual sensitivity to chemicals: elucidation of host susceptibility by use of biomarkers in environmental health research. *Clin Chem* 1995; 41:1809-13.
16. **Redlich CA**, Homer R, Smith B, Wirth J, Sparer J, Cullen M. Immunologic responses to isocyanates in sensitized asthmatic subjects. *Chest* 1996; 109:6s-8s.
17. **Redlich CA**, Grauer JN, Van Bennekum AM, Clever SL, Ponn RB, and Blaner WS. Characterization of carotenoid, vitamin A, and α -tocopherol levels in human lung tissue and pulmonary macrophages. *Am J Resp Crit Care Med* 1996; 154:1436-43.
18. **Redlich CA**, Rockwell S, Gao X, Kelley M, Elias JA. IL-11 enhances survival and decreases TNF production after radiation-induced thoracic injury. *J Immunol* 1996; 157:1705-10.

19. **Redlich CA**, Sparer J, Cullen MR. Sick building syndrome. *The Lancet* 1997; 349:1013-16.
20. **Redlich CA**, Karol MH, Graham C, Homer RJ, Holm CT, Wirth JA, Cullen MR. Demonstration of airway isocyanate-adducts in human HDI-induced asthma. *Scand J Work Envir Health* 1997; 23:227-31.
21. **Redlich CA**, Blaner WS, Van Bennekum AM, Chung JS, Clever SL, Cullen MR. The effect of supplementation with beta-carotene and vitamin A on lung nutrient levels. *Cancer Epidemiol Biomarkers Prev* 1998;7:211-14.
22. Mayne ST, **Redlich CA**, Cullen MR. Dietary vitamin A intake and prevalence of bronchial metaplasia in asbestos-exposed workers. *Am J Clin Nutr* 1998; 68:630-35.
23. **Redlich CA**, Anwar MS. Occupational asthma: keys to diagnosis and management. *J Respir Dis* 1998;19: 508-19.
24. **Redlich CA**, Rockwell S, Chung JS, Sikora A, Kelley M, Mayne ST. Vitamin A inhibits radiation-induced pneumonitis in rats. *J Nutr* 1998; 128: 1661-64.
25. **Redlich CA**, Chung JS, Cullen MR, Blaner WS, Van Bennekum AM, Berglund L. Effect of long-term beta-carotene and vitamin A on serum cholesterol and triglyceride levels among participants in the Carotene and Retinol Efficacy Trial (CARET). *Atherosclerosis* 1999; 143:427-34.
26. Wisnewski AV, Lemus R, Karol MH, **Redlich CA**. Isocyanate-conjugated lung epithelial cell proteins: A link between exposure and asthma?" *J Allergy Clin Immunol* 1999; 104:341-47.
27. **Redlich CA**, Cain H, Wisnewski AV. The immunology and prevention of isocyanate asthma: a model for low molecular weight asthma. *Sem Resp Crit Care Med* 1999;20:591-99.
28. Liu Y, Sparer J, Woskie S, Cullen MR, Chung JS, Holm C, **Redlich CA**. Qualitative assessment of isocyanate skin exposure in autobody shops. *Am J Ind Med* 2000;37:265-74.
29. Wisnewski AV, Srivastava R, Herrick C, Xu L, Lemus R, Cain H, Magoski N, Karol MK, Bottomly K, **Redlich CA**. Identification of human lung and skin proteins conjugated with diisocyanate in vitro and in vivo. *Am J Resp Crit Care Med* 2000;162:2330-36.
30. Brodtkin CA, Moon JD, Camp J, Echeverria D, **Redlich CA**, Willson RA, Checkoway H. Serum hepatic biochemical activity in two populations of styrene-exposed workers. *Occup Environ Med* 2001;58:95-102.
31. Wisnewski AV, Cain H, **Redlich CA**. Human gamma / delta T-cell lines derived from airway biopsies. *Am J Respir Cell Mol Biol* 2001;24:332-38.
32. **Redlich CA**, Stowe MH, Wisnewski AW, Eisen EA, Karol MK, Lemus R, Holm CT, Chung JS, Sparer J, Liu YC, Woskie S, Appiah-Pippim J, Gore R, Cullen MR. Subclinical Immunologic and physiologic responses in hexamethylene diisocyanate-exposed auto body shop workers. *Am J Ind Med* 2001; 39:587-97.
33. Lemus R, Lukinskeine L, Bier ME, Wisnewski AV, **Redlich CA**, Karol MH. Development of immunoassays for biomonitoring of hexamethylene diisocyanate exposure. *Environ Health Perspect* 2001; 109: 1103-8.
34. Herrick CA, Xu L, Wisnewski AV, Das J, **Redlich CA** and Bottomly K. A novel mouse model of isocyanate asthma showing allergic-type inflammation in the lung after inhaled antigen challenge. *J Allergy Clin Immunol* 2002; 109: 873-78.

35. Wisnewski AV, Liu Q, Miller J-J, Magoski N and **Redlich CA**. Effects of diisocyanate exposure on human airway epithelial cells: In vitro cellular and molecular studies. *Environ Health Perspect* 2002; 110: 901-7.
36. **Redlich CA** and Karol MH. Diisocyanate Asthma: Clinical Aspects and Immunopathogenesis. *Int Immunopharmacol* 2002; 2; 213-24.
37. **Redlich CA**, Stowe MH, Coren BA, Wisnewski AV, Holm CT, Cullen MR. Diisocyanate-exposed auto body shop workers: A one-year follow-up. *Am J Ind Med* 2002; 42:511-18.
38. Agalliu I, Eisen EA, Hauser R, **Redlich CA**, Stowe M, Cullen MR, Wegman DH, Christiani DC, Kennedy. Truncating the dose range for methacholine challenge tests: Three occupational studies. *J Occup Environ Med* 2003;45:841-47.
39. Pisani MA, Inouye SK, McNicoll L, **Redlich CA**. Screening for pre-existing cognitive impairment in older intensive care unit patients. *J Am Geriatr Soc* 2003; 51:689-93.
40. Pisani MA, Inouye SK, McNicoll L, Ely EW, **Redlich CA**. Under-recognition of preexisting cognitive impairment by physicians in older ICU. *Chest* 2003; 124:2267-74.
41. Herrick, CA, Das J, Xu L, Wisnewski, AV, **Redlich CA**, Bottomly K. Differential roles for CD4 and CD8 T cells after diisocyanate sensitization: genetic control of TH2-induced lung inflammation. *J Allergy Clin Immunol* 2003; 111:1087-94.
42. Wisnewski AV, Herrick CA, Liu Q, Bottomly K, **Redlich CA**. Human g/d α T cell proliferation and IFN-g production induced by hexamethylene diisocyanate. *J Allergy Clin Immunol* 2003; 112:538-46.
43. Wisnewski, AV, Cartier A, Stowe MH. Liu Q, Liu J, **Redlich CA**. Isocyanate vapor-induced antigenicity of human albumin, *J Allergy Clin Immunol* 2004; 113:1178-84.
44. Bello D, Woskie SR, Streicher RP, Liu Y, Stowe MH, Eisen EA, Ellenbecker MJ, Sparer J, Youngs F, Cullen MR, **Redlich CA**. Polyisocyanates in occupational environments: a critical review of exposures limits and metrics. *Am J Ind Med* 2004;46:480-91.
45. Liu Y, Berode M, Stowe MH, Cullen MR, Holm CT, Walsh FX, Sparer JA, Slade MD, Boeniger MF, **Redlich CA**. Urinary hexane diamine to assess respiratory exposure to hexamethylene diisocyanate aerosol: a chamber study. *Int J Occup Environ Health* 2004; 10:262-71.
46. Woskie SR, Sparer J, Gore R, Stowe M, Bello D, Liu Y, Youngs F, **Redlich CA**, Eisen E, Cullen M. Determinants of isocyanate exposures in auto body repair and refinishing Shops. *Ann Occup Hyg* 2004; 48:393-03.
47. Sparer J, Stowe M, Bellow D, Liu Y, Gore R, Youngs F, Cullen MR, **Redlich CA**, Woskie SR. Isocyanate exposures in auto body shop work: the SPRAY study. *J Occup Environ Hyg* 2004; 1:570-81.
48. Aliyu OA, Cullen MR, Barnett MJ, Balmes JR, Cartmel B, **Redlich CA**, Brodtkin CA, Barnhart S, Rosenstock L, Israel L, Goodman GE, Thornquist MD, Omenn GS. Evidence for excess colorectal cancer incidence among asbestos-exposed men in the Beta-Carotene and Retinol Efficacy Trial. *Am J Epidemiol* 2005; 162:868-78.
49. Pisani MA, **Redlich CA**, McNicoll L, Ely EW, Friedkin RJ, Inouye SK. Short-term outcomes in older intensive care unit patients with dementia. *Crit Care Med* 2005; 33:1371-76.
50. Wisnewski AV, Liu Q, Liu J, **Redlich CA**. Glutathione protects human airway proteins and epithelial cells from isocyanates. *Clin Exp All* 2005; 35:352-57.

51. Cullen MR, Barnett MJ, Balmes JR, Cartmel B, **Redlich CA**, Brodtkin CA, Barnhart B, Rosenstock L, Goodman GE, Hammar SP, Thornquist MD, Omenn GS. Predictors of lung cancer among asbestos-exposed men in the β -carotene and retinol efficacy trial. *Am J Epidemiol* 2005; 161:260-7.
52. Wild DM, **Redlich CA**, Paltiel DA. Surveillance for isocyanate asthma: A Model based cost-effectiveness analysis. *Occ Environ Med* 2005; 62:743-49.
53. Cartmel B, Dziura J, Cullen MR, Vegso S, Goodman G, **Redlich CA**. Cholesterol and triglyceride levels in the Vanguard population of the Carotene and Retinol Efficacy Trial (CARET). *Eur J Clin Nutr* 2005; 59:1173-80.
54. Liu Y, Stowe MH, Bello D, Woskie SR, Sparer J, Gore R, Youngs F, Cullen MR, **Redlich CA**. Respiratory Protection from isocyanate exposure in auto body shops: field performance of half face piece organic vapor cartridge respirators. *J Occ Env Health* 2006; 3:234-49.
55. Bello D, Smith TJ, Woskie SR, Streicher RP, Boeniger MF, **Redlich CA**, Liu Y. An FTIR investigation of isocyanate skin absorption using in-vitro guinea pig skin. *J Environ Monit* 2006; 8: 523-29.
56. Ye YM, Kim CW, Kim HR, Suh CH, Nahm DH, Park HS, **Redlich CA**, Wisnewski AV. Biophysical determinants of toluene diisocyanate antigenicity associated with exposure and asthma. *J Allergy Clin Immunol* 2006; 118:885-891.
57. Bello D, Sparer J, **Redlich CA**, Stowe MH, Ibrahim K, Liu Y. Slow curing of aliphatic polyisocyanate paints in automotive refinishing: a potential source for skin exposure, *J Occ Env Hygiene* 2007; 24:406-11.
58. Bello D, Smith TJ, Woskie SR, Streicher RP, Cullen MR, Liu Y, **Redlich CA**. Skin exposure to isocyanates: reasons for concern. *Environ Health Persp* 2007; 115:328-335.
59. Liu Y, Bello D, Sparer JA, Stowe MH, Woskie SR, Cullen MR, **Redlich CA**. Skin exposure to aliphatic polyisocyanates in the auto body repair industry: a qualitative assessment. *Ann Occup Hygiene* 2007; 51:429-439.
60. Bello D, **Redlich CA**, Stowe MH, Sparer J, Woskie SR, Hosgood HD, Liu Y. Skin exposure to aliphatic isocyanates in the auto body repair industry: II. A quantitative assessment. *Ann Occ Hygiene* 2008; 52: 117-24.
61. Wisnewski AW, Liu Q, Liu J, **Redlich CA**. Innate immunity to isocyanate. *Clin Exp Allergy* 2008; 38: 957-967.
62. Woskie SR, Bello D, Gore RJ, Stowe MH, Eisen EA, Liu Y, Sparer J, **Redlich CA**, Cullen MR. Comparison of task-based exposure metrics for an epidemiologic study of isocyanate inhalation exposures among autobody shop workers. *Ann Occ Hyg* 2008; 5: 588-98.
63. **Redlich CA**, Herrick CA. Skin-Lung Connections in Occupational Lung Disease. *Curr Opin All Clin Imm* 2008; 8:115-9.
64. Liu Y, Stowe MH, Bello D, Sparer J, Gore RJ, Cullen MR, **Redlich CA**, Susan R. Woskie. skin exposure to aliphatic polyisocyanates in the auto body repair and tefinishing industry: III. a personal exposure algorithm. *Ann Occup Hyg* 2009; 53: 33-40.
65. Wisnewski AV, Liu J, **Redlich CA**. Antigenic changes in human albumin caused by reactivity with the occupational allergen, diphenyl methane diisocyanate. *Analytical Biochem* 2010; 400: 251-8.

66. **Redlich CA**. Skin exposure and asthma: Is there a connection? *Proc Am Thor Soc* 2010; 7: 134-37.
67. Wisnewski AV, Xu L, Robinson E, Liu J, **Redlich CA**, Herrick CA. Immune sensitization to methylene diphenyl-diisocyanate (MDI) resulting from skin exposure: albumin as a carrier protein connecting skin exposure to subsequent respiratory responses. *J Occ Med Toxicology* 2011; 6:6.
68. Rockwell S, Liu Y, Mayne ST, **Redlich CA**. Subclinical vitamin A deficiency does not increase development of tumors in irradiated or unirradiated lungs. *Exp Biol Med* 2011; 236: 1173-79.
69. Henneberger P, **Redlich CA**, Toren K, Callahan D, Harver P, Lemiere C, Martin J, Tarlo S, Vandenplas O. American Thoracic Society Statement: Work-exacerbated Asthma. *Am J Respir Crit Care Med* 2011; 184: 368-378.
70. Wisnewski AV, Stowe MH, Nerlinger A, Opare-addo P, DeCamp D, Kleinsmith CR, **Redlich CA**. Biomonitoring hexamethylene diisocyanate (HDI) exposure based on serum levels of HDI-specific IgG. *Ann Occup Hyg* 2012; 10:1-10.
71. Arrandale V, Kudla I, Kraut AG, Scott JA, Tarlo SM, **Redlich CA**, Holness DL. Skin and respiratory symptoms among workers with suspected work-related disease. *Occupational Medicine* 2012; 62: 420-426.
72. Arrandale V, Meijster T, Pronk A, Doekes G, **Redlich CA**, Holness DL, Heederik D. Skin symptoms in bakery and auto body shop workers: associations with exposure and respiratory symptoms. *Int Arch Occup Environ Health* 2013; Feb;86(2):167-75.
73. De Vries TT, Bello D, Stowe MH, Harari H, Slade MD, **Redlich CA**. transferability of aliphatic isocyanates from recently applied paints to the skin of auto body shop workers. *J Occ Env Hygiene* 2012; 9: 699-711.
74. Wisnewski AV, Liu J, **Redlich CA**. Connecting glutathione with immune responses to occupational methylene diphenyl diisocyanate exposure. *Chemico-Biol Interact* 2013; 205:38-45.
75. Gui W, Wisnewski AV, Neamtii I, Gurzau E, Sparer JA, Stowe MH, Slade MD, Rusu OA, **Redlich CA**. Inception cohort study of workers exposed to toluene diisocyanate (TDI) at a Polyurethane Foam Factory: Initial One Year Follow-up. *Am J Ind Med* 2014; 57:1207-15.
76. Lefkowitz RY, Slade MD, **Redlich CA**. Injury, Illness and Work restriction in merchant seafarers. *Am J Ind Med* 2015; 58:688-96.
77. Lefkowitz RY, Slade MD, **Redlich CA**. Risk factors for merchant seafarer repatriation due to injury or illness at sea. *Int Marit Health* 2015; 66(2):1-6.
78. Lockey JE, **Redlich CA**, Streicher R, Pfahles-Hutchens A, Hakkinen PJ, Ellison GL, Harber P, Utell M, Holland J, Comai A, White M. Isocyanates and human health: Multi-stakeholder information needs and research priorities. *JOEM* 2015; 57:44-51.
79. **Redlich CA**, Tarlo S. Longitudinal assessment of lung function decline in the occupational setting. *Curr Opin Allergy Clin Immunol* 2015; 15:145–149.
80. Cook JM, Sakr CJ, **Redlich CA**, DeLoreto AL. elevated blood lead levels related to the use of firearms. *JOEM* 2015; 57(10):e136-7.

81. Harris D, Pensa MA, **Redlich CA**, Pisani MA, Rosenthal MS. community-based participatory research is needed to address pulmonary health disparities. *Ann Am Thorac Soc*, 2016; 13;8: 1231-1238.
82. Pensa M, Galusha D, Stowe M, Lefkowitz R, **Redlich CA**. Patterns of energy drink use and associated symptoms among a population of Connecticut factory workers. *JOEM* 2016: 58;5: e188-190.
83. Harari-Freire, Woskie S, Bello D, Streicher RP, **Redlich CA**. Development of an interception glove sampler for skin exposures to aromatic isocyanates. *Ann Occup Hyg* 2016 Nov 60(9):1092-1103. doi: 10.1093/annhyg/mew052.
84. Harber P, **Redlich CA**, Hines S, Filios M, Storey E. Recommendations for a clinical decision support system for work-related asthma in primary care settings. *JOEM* 2017: 59;11: e231–235.
85. Harris DA, Mainardi A, Iyamu O, Rosenthal MS, Bruce RD, Pisani MA, **Redlich CA**. Improving the asthma disparity gap with legal advocacy? A qualitative study of patient identified challenges to improve social and environmental factors that contribute to poorly controlled asthma. *J Asthma*. 2017 Sep 5:0. doi: 10.1080/02770903.2017.1373393. [Epub ahead of print] PMID: 28872933
86. Wisnewski AV, Kanyo J, Asher J, Goodrich JA, Barnett G, Patrylak L, Liu J, **Redlich CA**, Nassar AF. Reaction products of hexamethylene diisocyanate vapors with "self" molecules in the airways of rabbits exposed via tracheostomy. *Xenobiotica*. 2018 May;48(5):488-497. doi: 10.1080/00498254.2017.1329569. Epub 2017 Jun 1.
87. Collins J, Anteau S, Conner P, Cassidy L, Doney B, Wang ML, Kurth L, Carson M, Molenaar, D, **Redlich CA**, Storey E. The incidence of occupational asthma and exposure to Toluene Diisocyanate (TDI) in the U.S. TDI Production Industry. *JOEM* 2017: 59;12: S22-27.
88. Collins J, Conner P, Cassidy L, Doney B, Wang ML, Kurth L, Carson M, Molenaar, D, **Redlich CA**, Storey E. Medical monitoring for occupational asthma among Toluene Diisocyanate production workers in the U.S. *JOEM* 2017: 59;12: S13-21
89. Lefkowitz RY, **Redlich CA**, Slade MD. Injury, illness, and disability risk in American seafarers. *AJIM R1* 2018 Feb;61(2):120-129.
90. Harber P, **Redlich CA**, Henneberger P, Lareau SC, Sockrider M. Work-exacerbated asthma. *AJRCCM* 197 (2) (pp P1-P2), 2018
91. Wisnewski AV, Liu J, **Redlich CA**, Nassar AF. Polymerization of hexamethylene diisocyanate in solution and a 260.23 m/z [M+H]⁺ ion in exposed human cells. *Analytical Biochemistry*. 543 (pp 21-29), 2018.

Editorials: Invited Editorials and Commentaries:

92. **Redlich CA**, Welch LS. Chronic Beryllium Disease: Risk from low level exposure. *Am J Resp Crit Care Med* 2008; 177: 936-7.
93. **Redlich CA**. Environmental health: More controversy, little clarification. *Lancet* 1998; 352:(suppl iv) 9.
94. **Redlich CA**, Wisnewski AV, Gordon T. Perspective: mouse models of diisocyanate asthma. *Am J Respir Cell Mol Biol* 2002; 27:385-90.

95. Anthony VB, **Redlich CA**, Pinkerton KE, Balmes J, Harkema JR. NIEHS: 50 years of Advancing Science, Improving LUNG Health. AJRCCM (American Journal of Respiratory and Critical Care Medicine) 2016

Book Chapters / Reviews:

96. **Redlich CA**. Occupational liver disease. West J Med 1990; 152:76.

97. **Redlich CA**. Occupational Medicine, in Medical Diagnostics: A Pocket Companion. W.B. Saunders, Philadelphia 1992; 865-875.

98. **Redlich CA**. Occupational and Environmental Lung Disease. In: Matthay RA, Matthay MA, Weidemann HP. (eds). Annual Review of Pulmonary and Critical Care Medicine. W.B. Saunders, Philadelphia, 1993; 123-132.

99. **Redlich CA**, Brodtkin CA. Occupational Liver Disease. In: Rosenstock L, Cullen MR. (eds). Clinical Occupational and Environmental Medicine. W.B. Saunders, Philadelphia, 1994; 423-436.

100. **Redlich CA**, Balmes J. Occupational and Environmental Lung Diseases. In: George RB, Matthay RA, Light RW, Matthay MA. (eds). Chest Medicine 3rd ed, Williams and Wilkins, Baltimore, MD, 1995; 357-392.

101. **Redlich CA**. Does Vitamin A Prevent Cancer. Contemporary Internal Medicine 1995; 7: 29-36.

102. **Redlich CA**. Pulmonary Fibrosis, in Harper P, Schenker M, Balmes J. (eds). Occupational and Environmental Respiratory Disease, Mosby, St. Lois, 1996; 216-227.

103. Sood A, **Redlich CA**. Pulmonary Disability Evaluation. In: Parson P. (ed). Pulmonary and Respiratory Therapy Secrets, 1997; 323-326.

104. Sood A, **Redlich CA**. Domestic radon and lung cancer. Contemp Internal Medicine 1997; 9:5-9.

105. Silber A, **Redlich CA**. Lung Cancer in Women. In: Henrich J. (ed). Selected Women's Health Curriculum, Office of Research on Women's Health, NIH 1997.

106. **Redlich CA**. Occupational Lung Disorders: General Principles and Approaches. In: Fishman, AP. Pulmonary Diseases and Disorders, 3rd ed, 1998; 867-876.

107. **Redlich CA**. Isocyanate Asthma in Connecticut: Are you missing the diagnosis. Occupational Airways 1998; 4:1-3.

108. Sood A, **Redlich CA**. Evaluation of Respiratory Impairment And Disability. In: Davis GS. Medical Management of Pulmonary Diseases, Marcel Dekker Inc, New York 1999; 713-720.

109. Appiah-Pippim James, **Redlich CA**. Antioxidants and the Lung. Pulmonary and Critical Care Update 1999; Vol 13: lesson 18.

110. **Redlich CA**, Rose C. New developments in occupational and environmental lung disease – Introduction. Seminars Resp Crit Care Med 1999;20:1.

111. **Redlich CA**, Balmes J. Occupational and Environmental Lung Diseases. In: George RB, Matthay RA, Light RW, and Matthay MA. (eds). Chest Medicine 4th ed, Williams & Wilkins, Baltimore, MD, 2000; 314-345.

112. Iloeje UH, **Redlich CA**. Indoor air pollution: An update for the clinician. *Clinical Pulmonary Medicine*, 2000;7:128-33.
113. Wisnewski A, **Redlich CA**. Recent developments in diisocyanate asthma. *Curr Opin Allergy Clin Immunol* 2001; 1:169-75.
114. Sood A, **Redlich CA**. Pulmonary Function Tests at Work. In: Chupp GL. (ed). *Clinics in Chest Medicine: Pulmonary Function Testing*, W.B. Saunders, Philadelphia, 2002; 22: 783-793.
115. **Redlich CA**, Rose C. New Developments in Occupational and Environmental Medicine. In: **Redlich CA**, Rose C. *Clinics in Chest Medicine: Occupational and Environmental Lung Disease*, W.B. Saunders, Philadelphia, 2002; 23(4):ix-x.
116. Brodtkin CA, Lee S, **Redlich CA**. Liver Diseases. In: Rosenstock L, Cullen MR, Brodtkin CA, **Redlich CA**. *Textbook of Clinical Occupational and Environmental Medicine*, 2nd ed, Elsevier, Philadelphia, 2005; 587-602.
117. Weir NA, Gulati M, **Redlich CA**. Approach to the Patient / Diagnostic Methods. In: Rosenstock L, Cullen MR, Brodtkin CA, **Redlich CA**. *Textbook of Clinical Occupational and Environmental Medicine*, 2nd ed, Elsevier, Philadelphia, 2005; 285-292.
118. **Redlich CA**, Balmes J. Occupational and Environmental Lung Diseases. In: George RB, Matthay RA, Light RW, and Matthay MA. (eds). *Chest Medicine*, 5th ed, Williams & Wilkins, Baltimore, MD, 2005; 289-315.
119. Tarlo SM, **Redlich CA**. Reactive Airways Dysfunction Syndrome. In: Laurent GJ, Shapiro SD. (eds). *Encyclopedia of Respiratory Medicine*, 2006; 614-8.
120. Wisnewski AV, **Redlich CA**, Mapp CE, Bernstein DI. Polyisocyanates and their prepolymers. In: Bernstein LI, Chan-Yeung M, Malo J-L, Bernstein DI. *Asthma in the Workplace*, 3rd ed, Taylor & Francis, London, 2006; 481-504.
121. Taiwo B, Sood A, **Redlich CA**. Pulmonary Disability Evaluation. In: Parson P. *Pulmonary and Respiratory Therapy Secrets*, 3rd ed, Mosby, Elsevier, Philadelphia, 2006; 32-37.
122. **Redlich CA**, Bello D, Wisnewski AV. Health Effects of Isocyanates. In: Rom WN. *Environmental and Occupational Medicine*, 4th ed, Lippincott-Raven Publishers, Philadelphia, 2007; 502-16.
123. Taiwo B, **Redlich CA**. Chemical, Coatings and Plastics Industry. In: Tarlo S, Cullinan P, Nemery B. *Occupational and Environmental Lung Diseases: Diseases from Work, Home, Outdoor and other Exposures*. Wiley Blackwell, Oxford, 2010; 233-245.
124. Stowe MH, **Redlich CA**. Automobile Maintenance, Repair and Refinishing, In: Tarlo S, Cullinan P, Nemery B. *Occupational and Environmental Lung Diseases: Diseases from Work, Home, Outdoor and other Exposures*, Wiley Blackwell, Oxford, 2010; 203-210.
125. Henneberger, P. **Redlich CA**. Work-Aggravated Asthma, In: Sigsgaard,T, Heederik, D. *Occupational Asthma*, Basel; 2010: 89-100.
126. **Redlich CA**, Park HS, Bernstein DI. Polyisocyanates and their prepolymers. In: Bernstein LI, Chan-Yeung M, Malo J-L, Bernstein DI. *Asthma in the Workplace*, 3rd ed, Taylor & Francis, London, 2014.
127. Ahasic A, **Redlich CA**. Building-related illness and building-related symptoms. *UpToDate* 2014.

128. Gulati M, **Redlich CA**. Asbestosis and environmental causes of usual interstitial pneumonia, In: Curr Opin Pulm Med; 2015: 21:193-200.
129. Rabinowitz PM, Lefkowitz RY, Conti LA, **Redlich CA**, Weigler BJ. Occupational health of laboratory animal workers. Fox J, Anderson L, Otto G, Pritchett-Corning K, Wharty. Elsevier, Laboratory Animal Medicine, 3rd Edition; 2015;:1381-1402 (ISBN13 9780124095274).
130. Harber P, **Redlich CA**, Henneberger PK. Work-related lung diseases. Am J Respir Crit Care Med. 2016 Jan 15 193(2):P3-4. doi: 10.1164/rccm.1932P3. PMID: 26771422

Practice Guidelines, Standards and Consensus Statements:

131. Ward E M, Schulte PA, Bayard S, Blair A, Brandt-Rauf P, **Redlich CA**, Rothman N, Savage RE, Sprinker M, Toraason M, Weston A. Priorities for development of research methods in occupational cancer. Environ Health Perspect 2003; 111:1-12.
132. Tarlo S, **Redlich, CA**, et al. An ATS/ERS report: 100 key questions and needs in occupational asthma. Eur Resp J 2006; 27:607-614.
133. Tarlo SM, Balmes J, Balkissoon R, Beach J, Beckett W, Bernstein D, Blanc PD, Brooks SM, Cowl CT, Daroowalla F, Harber P, Lemiere C, Liss GM, Pacheco KA, **Redlich CA**, Rowe B, Heitzer J. ACCP Consensus Statement: Diagnosis and Management of Work-related Asthma. Chest 2008; 134(3): 1S-41S.
134. Heederik D, Henneberger P.K, **Redlich CA**. Primary prevention: Exposure reduction, skin exposure and respiratory protection. European Respiratory Review 2012; 21: 112-124.
135. **Redlich CA**, Tarlo SM, Hankinson JL, Townsend MC, Eschenbacher Wl, von Essen, SG, Sigsgaard T. Official ATS Technical Standards: Spirometry in the Occupational Setting. Am J Respir Crit Care Med 2014; 189: 984-994.

Editor (book/series):

136. **Redlich CA**, Rose C. Recent Advances in Occupational and Environmental Pulmonary Diseases. Seminars in Respiratory and Critical Care Medicine, 1999; 20(6).
137. **Redlich CA**, Rose C. Clinics in Chest Medicine: Occupational and Environmental Lung Disease, W.B. Saunders, Philadelphia, 2002: 23(4).
138. Rosenstock L, Cullen MR, Brodtkin CA, **Redlich CA**. Textbook of Clinical Occupational and Environmental Medicine, 2nd ed. Elsevier, Philadelphia, 2005.
139. **Redlich CA**, Blanc PD, Gulati M, Kuschner WG. Clinics in Chest Medicine: Occupational Pulmonology, W.B. Saunders, Philadelphia, 2012:33(4). (Preface xi-xii)

Monographs / Reports:

140. Hobbs C, Breyse P, Chen LC, Diaz-Sanchez D, Hoel D, Koller L, Kriebel D, McCabe M, **Redlich CA**, Schoof R, Sprince N, Tarlo S, Welch L. Managing Health Effects of Beryllium Exposure, National Research Council. The National Academies Press, 2008.

Case Reports, Technical Notes, Letters:

141. **Redlich CA**. Cullen MR. Nonalcoholic Steatohepatitis. Ann Int Med 1997; 127:410.

142. Brodtkin CA, Daniell W, Echeverria D, **Redlich CA**, Checkoway H. Concerns and assumptions of labor and management in the dry-cleaning industry. *Am J Ind Med* 1999; 36(4):482-3.
143. Blanc P, **Redlich CA**. Evaluation of abnormal liver-enzyme results in asymptomatic patients. *N Engl J Med*, 2000; 343: 662.
144. Brodtkin CA, Balmes JR, **Redlich CA**, Cullen MR. Residential proximity to naturally occurring asbestos; Health risk or ecologic fallacy? *Am J Respir Crit Care Med*, 2006;173:573; author reply 573-4.
145. **Redlich CA**, Bello D, Woskie SR, Streicher RP. Measurements of airborne methylene diphenyl diisocyanate concentration in the U.S. workplace. *J Occ Env Hygiene*, 2009,6:82-5.
146. Brodtkin CA, Cullen MR, Balmes JR, **Redlich CA**, Hammer S. Discussion on "Mesothelioma in Drywall Finishing Workers," *J ASTM International*, 2011,8:8.
147. Lefkowitz RY, Mitma A, Altassan K, **Redlich CA**. Occupational Illness in a Syrian Refugee: Implications for Clinical Practice. (accepted, *Annals ATS*)
148. Lefkowitz RY, Mitma AA, Altassan K, **Redlich CA**. The Limits of Pattern Recognition: Nodular Lung Disease in a Syrian Refugee. *Ann Am Thorac Soc*. 2017 Oct 14(10):1591-1594. doi: 10.1513/AnnalsATS.201702-163CC.

Book Reviews:

149. **Redlich CA**. *Asthma in the Workplace*, 2nd ed., Bernstein L, Chan-Yeung M, Malo J-L, and Bernstein D, Respiratory Care 2001.

CURRICULUM VITAE

I. PERSONAL INFORMATION

Name:	Mark S. Colella, M.D.
Date of Birth:	May 11, 1963
Birthplace:	New Brighton, PA
Address:	219 Royal Doulton Court Gibsonia, PA 15044
Phone:	(724) 226-7863
Email:	Raddoc5@yahoo.com
Marital Status:	Married/Wife: Lori (Cotter)
	Children: Marcus & Lauren
Social Security Number:	187-58-1433
PA Medical License:	MD-044762-L
MC & BS Provider Number:	722-031
MCD Provider Number:	0012812470006
NPI Provider Number:	1780635896
DEA Number:	BC3593236

II. EDUCATION AND TRAINING

Undergraduate

09/81 - 05/83	Cornell University Ithaca, New York	Anthropology Major President's Scholarship Dean's List each Semester Cornell University Trainer's Award, Baseball, 1982
09/83 - 05/85	Geneva College Beaver Falls, PA	Pre-Medical Science...B.S. Summa Cum Laude U.S. Olympic Baseball Team Finalist, 1984

W. Clair Merriman,
Student-Athlete
Award, 1985

Academic All
American 1984,
1985

Geneva College
Certificate of Merit
for Outstanding
Scholastic
Achievement 1984,
1985

Graduate (Medical)

05/89

University of Pittsburgh
School of Medicine
Pittsburgh, PA

M.D.

Academic Honors in
Neuroanatomy and
Neuroscience,
Internal Medicine

Academic/Clinical
Honors: OB/GYN,
Neurology,
Pediatrics

Post Graduate (Residency)

07/89 - 06/93

Presbyterian University
Hospital
Pittsburgh, PA

Radiology Resident
(07/89 - 06/92)
Chief Radiology
Resident
(06/92 - 06/93)

III. CERTIFICATION AND LICENSURE

1988	Pennsylvania Medical License MD-044762-L
1993	Board Certified in Diagnostic Radiology
1994 - Present	Certified B-Reader...National Institute of Occupational Safety and Health (NIOSH)

IV. APPOINTMENTS AND POSITIONS

1985 - 1987	Pittsburgh Transplant Foundation Pittsburgh, PA	Organ Procurement Coordinator
1991	Residents Chapter of PA Radiological Society	Chairman
1991	Residents Chapter of Pittsburgh Roentgen Society	President
06/93 – 2000	Alle-Kiski Medical Center Department of Radiology 1301 Carlisle St. Natrona Heights, PA 15065	Staff Radiologist
1996 – 2013	Alle-Kiski Medical Center	Radiation Safety Officer
1994 - Present	AV Medical Imaging, Inc. 1301 Carlisle St. Natrona Height, PA 15065	Partner
1996 - Present	Independent Radiologic Consultations To Legal Profession	
1998	Chairman, Nomination Committee, General Staff	

1999	Independent Consultant Options Health Works Pittsburgh, PA	
2000 – Present	Alle-Kiski Medical Center Natrona Heights, PA 15065	Medical Quality Committee
1994 – Present	AKMC-Radiological Imaging 2801 Freeport Rd. Natrona Heights, PA 15065	Staff Radiologist
2009 – Present	Allegheny Valley Hospital 301 Carlisle Street Natrona Heights, PA 15065	Director of Medical Imaging
2009 – 2010	Society of Presidents Council Geneva College	Elected to Savant Leaders
2015 – Present	CDC/NIOSH	Reader for Coal- Workers pneumocon- iosis program
2016 – Present	CDC/NIOSH	Over-reader Q/A program
2018	Doctors without Borders	Radiologist

V. PROFESSIONAL ORGANIZATIONS

American College of Radiology
Pennsylvania Radiological Society
Pittsburgh Roentgen Society

VI. PUBLICATIONS/PRESENTATIONS

“Role of Quantitative Ventilation and Perfusion Lung Scanning in Single Lung Transplantation”, Association of University Radiologists, March, 1991; Pittsburgh Roentgen Society, April, 1991. Mark S. Colella, Ajit Shaw.

Ontell, Sheryl J., Mark S. Colella, Joel Horowitz, Leonard Makowka, Jonathan Trager, Thomas

E. Starzl. “Applications of the Isolated Perfused Rat Liver in Transplantation Research.”
Journal of Investigative Surgery.

1992, 1993 Presentation: Orthopedic Radiology, The Reading Room, Christy Imaging Conference, Vista Hotel, Pittsburgh, PA.

1992 Co-Author “Radiology Fellowship Reform Legislation” ACR National meeting in Phoenix, Arizona.

1996 Presentation: “Radiology Reading Room” Christy Imaging Service, Pittsburgh, PA

1997, 1998 Presentation: “Radiologists Approach to Plain Films” Christy Imaging Service, Pittsburgh, PA.

Curriculum Vitae

August 2018

PERSONAL DATA

Name: **Terry M. Spear**

Birth Date: 06/23/52

Address: 819 Empire St., Butte, MT 59701

Citizenship: United States

EDUCATION

Baccalaureate Degree (B.A.): Microbiology; June 1975; University of Montana, Missoula, Montana.

Master of Science (M.S.) Environmental Health; December 1980, University of Minnesota.

Doctor of Philosophy (Ph.D.): Environmental Health; April 1996, University of Minnesota

Dissertation Title: Assessment of Workers' Exposure to Lead-Containing Aerosol

PROFESSIONAL EXPERIENCE

Employment (full-time):

Faculty; Safety, Health and Industrial Hygiene Department: 8/1983 to 5/2012

Montana Tech of the University of Montana.

Assistant Professor (1983-1988); Associate Professor (1989-96); Full Professor, Tenured (1997- 2012); Department Head (2002 - 2012); Professor Emeritus (2012 - present).

Developed and taught academic courses in safety and industrial hygiene in the Montana Tech campus and distance learning programs. Taught industrial hygiene, hazardous materials management, air sampling and analysis, instrumentation for industrial hygiene, welding safety and health, safety engineering & technology, construction safety, industrial respiratory protection, epidemiology, radiological safety.

Involved in all aspects of advising, developing, and directing of student research and academic progress.

Senior Engineer, 11/1980 to 8/1983

EG&G Idaho Inc., Idaho National Engineering Laboratory (INEL), Idaho Falls, Idaho. Provided industrial consultation to facility management, including investigation and monitoring of work environments, ventilation evaluations, design and work practice reviews, hazardous materials oversight, and worker education and training.

Related Professional Experience:

Affiliate Professor: 9/1981 - 5/1982

University of Idaho, Idaho Falls, Idaho. Instructor for Mines 433, Environmental Health I, Industrial Hygiene, and Mines 434, Environmental Health II, Occupational Stress.

Consulting: 1985 - Present

Provide consultation to a variety of general industry and mining companies on program document development, health and safety compliance auditing, regulatory issues, industrial hygiene field sampling, on-site hazard assessments, and training. Over 25 years experience in providing expert witness testimony involving consultation and participation in personal injury and illness liability litigation cases for plaintiffs, defendants, private industry, and insurance companies.

RESEARCH AWARDS

Weatherization protocols in homes containing vermiculite and other asbestos-containing material. U.S. Department of Health and Human Services REACH Grant, December 2006.

Yellowstone Winter Use Personal Air Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit, Cooperative Agreement Number H1200040001, January 2006. Yellowstone Winter Use Air Monitoring, continuation of UMT 15, *J1580050167*, 2006.

Yellowstone Winter Use Personal Air Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit, Cooperative Agreement Number H1200040001, January 2005.

Occupational Exposure to Submicron Particle Mass and Number Concentrations from Diesel Emissions In an Underground Mine, Supplemental Research Training Grant, NIOSH, 2002 - 2003.

Lead Exposure Associated with Weatherization Activities in Homes Containing Lead Based Paint, Department of Energy, Spring 2002.

Chemical speciation of two different sources of copper slag, Supplemental Research Training Grant, NIOSH, 2001 - 2002.

Airborne assessment of abrasive blasting aerosol using copper slag abrasive, Supplemental Research Training Grant, NIOSH, 1999 - 2000.

Assessment of workers' exposure to lead containing aerosols, International Lead and Zinc Research Organization (LZRO), 1994 -1996.

Assessment of workers' exposures to lead-containing aerosols during smelter remediation, Minerals Research Institute, 1993 - 1994.

Fugitive dust emissions and worker exposure during furnace slag processing, Minerals Research Institute, 1991.

Volatile organics released from water sprays, Minerals Research Institute, 1989 - 1990.

PEER-REVIEWED PUBLICATIONS

Hart, JF; Autenrieth, D; Cauda, EG; Chubb, L; Spear, TM; Wock, S; Rosenthal, S. A Comparison of Respirable Crystalline Silica Concentration Measurements Using a Direct-on-Filter Fourier Transform Infrared (FT-IR) Transmission Method Versus a Traditional Laboratory X-ray Diffraction Method. *Journal of Occupational & Environmental Hygiene*. ISSN: 1545-9624 (Print) 1545-9632 (Online) Journal homepage: <http://oeh.tandfonline.com/loi/uoeh20>

E. A. Riley, E. E. Carpenter, J. Ramsay, E. Zamzow, C. Pyke, M. H. Paulsen, L. Sheppard, T. M. Spear, N. S. Seixas, D. J. Stephenson, C. D. Simpson. Evaluation of 1-Nitropyrene as a Surrogate Measure for Diesel Exhaust. *Annals of Work Exposures and Health*, 2017, 1–12, doi: 10.1093/annweh/wxx111.

Dale J. Stephenson, Ashley Kunz, Julie F. Hart, Terry M. Spear, Emily J. Zamzow. Snowmobile Noise Exposure Monitoring of Yellowstone National Park Employees. *Intermountain Journal of Sciences*, Vol. 20, No. 1-3, September 2014.

Spear, TM, Julie F. Hart, JF, Spear, TE, Loushin, M, Shaw, N, Elashheb, MI. The presence of asbestos-contaminated vermiculite attic insulation and/or other asbestos containing materials in homes and the potential for living space contamination. *Journal of Environmental Health*, Volume 75. Number 3, 2012.

Tony J. Ward, Terry M. Spear, Julie F. Hart, James S. Webber & Mohamed I. Elashheb. Asbestos in Tree Bark A Review of Findings for this Inhalational Exposure Source in Libby, Montana. *Journal of Occupational & Environmental Hygiene*. 9: 387–397, April, 2012. ISSN: 1545-9624 print / 1545-9632 online.

Mohamed I. Elashheb, Terry M. Spear, Julie F. Hart, James S. Webber, and Tony J. Ward. “Libby Amphibole Contamination in Tree Bark Surrounding Historical Vermiculite Processing Facilities”. *Journal of Environmental Protection*. Vol.2, No. 8, October 2011) . DOI: 10.4236/jep.2011.28122.

V. Balasubramanian, T.M. Spear, J.F. Hart, J.D. Larson: Evaluation of Surface Lead Migration in Pre-1950 Homes: An On-Site Hand-Held X-Ray Florescence Spectroscopy Study. *Journal of Environmental Health*. Volume 23, Number 10, pp. 14-19, 2011.

Julie F. Hart, Tony J. Ward, Terry M. Spear, Richard J. Rossi, Nicholas N. Holland, and Brodie G. Loushin. “Evaluating the Effectiveness of a Commercial Portable Air Purifier in Homes with Wood Burning Stoves: A Preliminary Study”. *Journal of Environmental and Public Health*, Volume (2011), Article ID 324809. Doi:10.1155/2011/324809.

Julie F. Hart, J.F., Spear, T.M., Ward, T.J., Baldwin, C.E., Salo, M.N. and Elashheb, M.I. “An evaluation of potential occupational exposure to asbestiform amphiboles near a former vermiculite mine”, *Journal of Environmental and Public Health*, vol. 2009, Article ID 189509. Doi:10.1155/2009/189509.

PEER-REVIEWED PUBLICATIONS (continued)

Ward, T.J., Hart, J.F., Spear, T.M., Meyer, B.J., and Webber, J.S. , “Fate of Libby Amphibole Fibers When Burning Contaminated Firewood” , *Environ. Sci. Technol.* 2009, 43, 2878-2883.

Hart, J.F., Ward T.J., Spear T.M., Crispen, K., Zolnikov, T.R. “Evaluation of asbestos exposures during firewood harvesting simulations in Libby, Montana - Preliminary Data,” *Ann. Occup. Hyg.* Volume 51, Number 8, November 2007.

Spear, T.M., Hart, J., Stephenson, D.J., Yellowstone Winter Use Personal Exposure Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU), RM-CESU Cooperative Agreement Number:J1580050167, June 1, 2006.

Ward, T.J., Spear, T.M., Hart, J.; Noonan, C., Holian,A., Getman, M., Webber, J.S. “Trees as reservoirs for amphibole fibers in Libby, Montana”, *Science of The Total Environment*, Vol. 367, Issue 1, August 2006.

Stephenson, D.J., Spear, T.M., Lutte, M.G. “Evaluation of a Direct Reading Sampling Method to Measure Exposure to Diesel Particulate Matter in an Underground Metal Mine,” *Mining Engineering*, Vol. 58, No. 8, August 2006.

Spear, T.M., Stephenson, D.J., Yellowstone Winter Use Personal Exposure Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU), RM-CESU Cooperative Agreement Number: H1200040001, June 1, 2005.

Wilson, T.B., . Douglass, R.J., Spear, T.M., Hart, J.F., and Norman, J.B. “Evaluation of protective clothing for handling small mammals potentially infected with aerosol-borne zoonotic agents,” *Intermountain Journal of Sciences*, Vol. 8(1), 2002.

Spear, T.M., Stephenson, D., Seymour, M., “Characterization of aerosol generated during abrasive blasting with copper slag,” Presented atInhaled Particles IX, Robinson College, Cambridge, UK and published in *Annals of Occupational Hygiene*, Vol. 46, Supplement, pp. 296-299, 2002.

Stephenson, D., Spear, T.M., Seymour, M, and Cashell, L., “Airborne Exposure to Heavy Metals and Total Particulate During Abrasive Blasting Using Copper Slag Abrasive,” *Appl. Occup. Environ. Hyg.*, Volume 17(6): 437-443, 2002.

Spear, T.M., Cannell, C.E., “Mixmaster exposure to dust during mixing of wildland fire retardant chemicals,” *International Journal of Wildland Fire*, Volume 11(1), pp. 65-73, 2002.

Spear, T.M., DuMond, J.W., Lloyd, C.J. and Vincent, J.H., “An Effective Protection Factor Study of Primary Lead Smelter Workers,” *Appl. Occup. Environ. Hyg.*, Volume 15(2): 235-244 (2000).

PEER-REVIEWED PUBLICATIONS (continued)

Spear, T.M., Hardgrove, R., Norman, J.B., Wulf, D.T., and Rossi, R.J. "The Effects of Strapped Spectacles on the Fit Factors of Three Manufactured Brands of Full Facepiece Negative Pressure Respirators," *Ann. Occup. Hyg.*, Vol. 43 (3): 193-199 (1999).

Spear, T.M., Svee, W., Vincent, J.H., Stanisich, N. "Chemical Speciation of Lead Dust Associated With Primary Lead Smelting," *Environmental Health Perspectives*. Vol. 106(9): 565-571 (1998).

Spear, T.M., Werner, M.A., Bootland, J.H., Murray, E.P., Gurumurthy, R. and Vincent, J.H. "Assessment of Particle Size Distributions of Health-Relevant Exposures of Primary Lead Smelter Workers," *Ann Occup. Hyg.*, Vol. 42, No. 2, pp. 73-80 (1998).

Vincent, J.H., Brosseau, L.M., Ramachandran, G., Tsai, P.J., Spear, T.M., Werner, M.A., McCullough, N.V. "Current issues in exposure assessment for workplace aerosols." In: *Inhaled Particles VII* (ed. Ogden TL), *Ann Occup. Hyg.*, 41 (Suppl. 1), 607-614 (1997).

Spear, T.M., Werner, M.A., Bootland, J., Harbour, A., Murray, E.P., Rossi, R. and Vincent, J.H., "Comparison of Sampling Methods for Personal Sampling of Inhalable and 'Total' Lead and Cadmium Containing-Aerosols in a Primary Lead Smelter," *Am. Ind. Hyg. Ass. J.*, 58:893-899 (1997).

Vincent, J.H., Werner, M.A., Tsai, P.-J. And Spear, T.M. (1996). "Studies of occupational aerosol exposures and the impact of introducing new criteria for standards." In: *Occupational Hygiene Solutions* (ed. G.S. Hewson), proceedings of the 15th Annual Conference of the Australian Institute of Occupational Hygienists, Tullamarine, Victoria, Australia, pp 33-41.

M.A. Werner, T.M. Spear and J.H. Vincent. "Investigation Into The Impact of Introducing Workplace Aerosol Standards Based On The Inhalable Fraction." Presented at the Second International Symposium on Modern Principles of Air Monitoring (Sälen, Sweden, February, 1996) and published in *The Analyst*, Vol 21 (1207-14), 1996.

PROFESSIONAL PRESENTATIONS

"Evaluating the Impact of weatherization measures in homes that contain vermiculite insulation and/or other asbestos containing materials". Northwest Occupational Health Conference, Pasco, WA. October 2011.

"Weatherization of houses containing vermiculite or other ACM". Spear, T.M. and Hart, J.F., ASTM Johnson Conference on Asbestos. July 25-29, 2011.

"The Abundance of Libby Amphibole in Vermiculite Insulation in Homes". Spear, T.M. Pacific Northwest International Section (PNWIS) of the Air & Waste Management Association (A&WMA). Nov 3-5, 2010.

"Evaluating potential asbestos pathways from vermiculite attic insulation and asbestos containing materials in Western Montana homes- Baseline Results". Spear, T.M. Northwest Occupational Health Conference, Vancouver, B.C., October 2009.

PROFESSIONAL PRESENTATIONS (continued)

“Evaluation of Asbestos Exposures during Firewood Harvesting Simulations in Libby, Montana”. Ward, T. J., Spear, T., and Hart, J. 2008 ASTM Johnson Conference, Burlington, VT, July 15, 2008 (poster).

“Trees as Reservoirs for Amphibole Fibers in Libby, Montana”. Presented at the Mine Design, Operations & Closure Conference, April 2007.

“Winter use air monitoring in Yellowstone National Park”. Presented at the Pacific Northwest American Industrial Hygiene Conference, October 2006.

“Occupational exposure to Snowmobile emissions in Yellowstone National Park,” Presented at the American Industrial Hygiene Conference and Exposition, May 2005.

“Occupational Exposure to Submicron Particle Mass and Number Concentrations from Diesel Emissions In an Underground Mine,” Presented at the American Industrial Hygiene Conference and Exposition, May 2003.

“Demonstrating an association between exposure and risk of disease,” Montana Trial Lawyers Association Scientific Evidence Seminar, April 25, 2003.

“Worker exposure to dust and heavy metals during abrasive blasting using copper slag.” Presented at the Pacific Northwest American Industrial Hygiene Conference, October 2001.

“Characterization of aerosol generated during abrasive blasting with copper slag.” Presented at the Inhaled Particles IX Symposium in Cambridge, UK, September 2001.

“Comparison of Methods for Personal Sampling of Inhalable and Total Abrasive Blasting Aerosol.” Presented at the American Industrial Hygiene Conference and Exposition, May 2001.

“Airborne Exposure Assessment of Abrasive Blasting Aerosol Using Copper Slag Abrasive.” Presented at the American Industrial Hygiene Conference and Exposition, May 2000.

“Respirator protection factors.” Presented at the 19th Annual Lead Occupational Health Conference, Chicago, IL. October, 1997.

“An effective protection factor study at a primary lead smelter.” Presented at and published in the abstracts of the American Industrial Hygiene Conference and Exposition, May 1996.

“The impact of introducing workplace standards based on the inhalable fraction.” Presented at the Montana Safety and Health Conference, April 1996.

“Characterization of lead aerosol size distribution in a primary lead smelter.” Presented at the Montana Academy of Sciences, April 1994.

PROFESSIONAL PRESENTATIONS (continued)

“Inhalable Fungal Aerosol Exposure in a Wood Pellet Plant.” Presented at the American Industrial Hygiene Conference and Exposition, May, 1993.

HONORS

Professor Emeritus, June 2012, Montana Tech of the University of Montana

Distinguished Industrial Hygienist Award, 2012, Pacific Northwest Section - American Industrial Hygiene Association.

NIOSH Fellowship, 1994 -1995, University of Minnesota

NIOSH Scholarship, 1979, University of Minnesota

NIOSH Scholarship, 1978, Montana Tech.

ADMINISTRATIVE EXPERIENCE

Program Manager: M.S. Distance Learning/Professional Track Industrial Hygiene Program

Head (2002-2012): Safety, Health & Industrial Hygiene Department, Montana Tech of The University of Montana

Director (2002-2012): Industrial Hygiene Graduate Program, Montana Tech of the University of Montana

Planning Committee: Big Sky Section American Society of Safety Engineers

AIHA and ASSE Student Section: Faculty Representative

Principal Investigator, Eleven funded research grants
Coordinate and direct graduate student research

PROFESSIONAL/COMMUNITY/UNIVERSITY ACTIVITIES

Technical Advisor to the Libby Area Technical Advisory Committee. Jan.2009 to Jan, 2012.

Past Member: Expert panel on “Potential Environmental Impacts of Dust Suppressants: Avoiding Another Times Beach”. Sponsored by U.S. Environmental Protection Agency and the University of Nevada Las Vegas.

Past Member: Libby Amphibole Research Symposium, Libby, MT.

Past Faculty Representative, AIHA and ASSE Student Sections.

Past Member, Curriculum Review Committee, Montana Tech of The University of Montana

Past Member, Chancellor’s Advisory Committee, Montana Tech of The University of Montana

Past Member, Graduate Council

PROFESSIONAL SOCIETIES

American Industrial Hygiene Association

Americas Section, International Society for Respiratory Protection

American Association for the Advancement of Science

CURRICULUM VITAE

Julie F. Hart

Professor and Department Chair
Department of Safety, Health and Industrial
Hygiene Montana Tech

Education:

University of Montana	Ph.D	Toxicology	2013
Montana Tech	M.S.	Industrial Hygiene	1991
Montana Tech	B.S.	Occupational Safety & Health	1989

Professional Registration and Licenses:

Certified Industrial Hygienist (1998) American Board of Industrial Hygiene (No. 7751)

Work Experience:

Montana Tech	Professor and Department Chair, Safety, Health and Industrial Hygiene (August, 2014-present)
Montana Tech	Professor in Safety, Health and Industrial Hygiene (August, 2013-August, 2014)
Montana Tech	Associate Professor in Safety, Health and Industrial Hygiene (August, 2010-August, 2013)
Montana Tech	Assistant Professor in Safety, Health and Industrial Hygiene (2000-2010)
Montana Power Co. 2000)	Corporate Health and Safety Auditor (1997-
Thunder Basin Coal Co.	Senior Safety Advisor (1994-1997)
Thunder Basin Coal Co.	Safety Advisor (1991-1994)
Wyoming/MSHA State Grants 1997)	Part-Time Instructor (1995-

Professional Affiliations:

American Board of Industrial Hygiene (1996 – present)
American Industrial Hygiene Association (1990 – present)
American Industrial Hygiene Association - Pacific Northwest Section: Montana Local Education (2000 to present)
American Industrial Hygiene Association – Pacific Northwest Section: Secretary (2017 – present)
American Conference of Governmental Industrial Hygienists (2017 – present)

Honors and Awards:

Montana Tech: Rose and Anna Busch Endowment Faculty Achievement Award for in Recognition of Outstanding Teaching, Scholarship and Professional Service (2017)

Montana Tech: Merit Award: Meritorious achievement in Teaching, Scholarship and Professional Service (2016)

Montana Tech: Alumni Recognition Award (2011)

Pacific Northwest Section of the American Industrial Hygiene Association:

Distinguished Industrial Hygienist Award (2009)

Funded Grants:

Hart, J.F., Combined Undergraduate and Graduate Training Program.

DPHHS/CDC/NIOSH. T03OH008630. 7/1/13 – 6/30/19. Occupational Safety and Health Training Project Grant.

Spear, T.M., Hart, J.F., Evaluating the impact of weatherization activities in homes with vermiculite insulation or other asbestos containing material. Department of Energy
\$100,000 (2007-2010).

Hart, J.F., An Evaluation of Potential Occupational Exposure to Asbestiform Amphiboles near a Former Vermiculite Mine. The Rocky Mountain Center for Occupational and Environmental Health (RMCOEH), Department of Family and Preventive Medicine, University of Utah School of Medicine. This Pilot/Small Projects Program was supported by the National Institute for Occupational Safety and Health (NIOSH). (2008-2009).

Principle Publications:

Hart, JF, Autenrieth, DA, Cauda, E., Chubb, LG, Spear, TM, Wock, S, Rosenthal, S. (2018 in press). A Comparison of Respirable Crystalline Silica Concentration Measurements Using a Direct-on-Filter Fourier Transform Infrared (FT-IR) Transmission Method Versus a Traditional Laboratory X-ray Diffraction Method. *Journal of Occupational & Environmental Hygiene* (in press – anticipated publication October, 2018).

Sheehy, A, Autenrieth, D, Hart, J, Risser, S (2017). Making it Sound as Good as it Tastes. Artisan Spirits - Summer Issue. <http://artisanspiritmag.com/current-issue/>.

Richardson, C., Capoccia, S, Hart, J (2016). Population Dynamics of the Feral Pigeon in the Central Business District of Butte, Montana. Conference Proceedings. 27th Vertebr. Pest Conf. R. M. Timm and R. A. Baldwin, Eds.) Published at Univ. of Calif., Davis. 2016. Pp. 217-220.

Richardson, KS, Kuenzi, A, Douglass, RJ, Hart, J, Carver, S (2013). Human exposure to particulate matter potentially contaminated with Sin Nombre virus. *EcoHealth*. DOI: 10.1007/s10393-013-0830-x.

- Ward, TJ, Spear, TM, Hart, JF, Webber, JS, Elashheb, MI (2012). Amphibole asbestos in tree bark – A review of findings for this inhalation exposure source in Libby, Montana. *Journal of Occupational and Environmental Hygiene*, 9:6, 387-397.
- Spear, TM, Hart, JF, Spear, TE, Loushin, M, Shaw, N, Elashheb, MI (2012). The presence of asbestos-contaminated vermiculite attic insulation and/or other asbestos containing materials in homes and the potential for living space contamination. *Journal of Environmental Health*, 75:3, 24-29.
- Elashheb ML, Spear TM, Hart JF, Webber JS, Ward TJ (2011). Libby Amphibole Contamination in Tree Bark Surrounding Historical Vermiculite Processing Facilities. *Jour of Env Prot.* 2: 1062-1068.
- Balasubramanian, V., Spear, T.M., Hart, J.F., Larson, J.D. (2011) Evaluation of surface lead migration in pre-1950 homes: An onsite hand-held X-ray florescence spectroscopy study. *Jour of Env Health* Vol.73, No. 10, 14-19.
- Hart, J.F., Ward, T.J., Spear, T.M., Rossi, R.J., Holland, N.N., Loushin, B.G. (2011). Evaluating the effectiveness of a commercial portable air purifier in homes with wood burning stoves: A preliminary study. *Jour of Env and Public Health*. Doi:10.1155/2011/324809.
- Hart, J.F., Spear, T.M., Ward, T.J., Baldwin, C.E., Salo, M.N., Elashheb, M.I. (2009). An evaluation of potential occupational exposure to asbestiform amphiboles near a former vermiculite mine. *Jour of Env and Public Health*. Doi:10.1155/2009/189509.
- Ward, T.J., Hart, J.F., Spear, T.M., Meyer, B.J., Webber J.S. (2009). Fate of Libby amphibole fibers when burning contaminated firewood. *Environ. Sci. Technol.*, Vol. 43, 2878-2883.
- Hart, J.F., Ward, T.J., Spear, T.M., Crispen, K., and Zolnikov, T.R., (2007). Evaluation of Asbestos Exposures During Firewood Harvesting Simulations in Libby, Montana, *Annals of Occupational Hygiene*, 51, 8: 1-7.
- Ward, T.J., Spear, T.M., Hart, J.F., Noonan, C., Holian, A., Getman, M., Webber, J.S., (2006). Trees as reservoirs for amphibole fibers in Libby, Montana, *Science of the Total Environment*, Vol. 367, 460 – 465.
- Spear, T.M., Hart, J., Stephenson, D.J., (2006). Yellowstone Winter Use Personal Exposure Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU), RM- CESU Cooperative Agreement Number: J1580050167.
- Wilson, T.B., Douglass, R.J., Spear, T.M., Hart, J.F., and Norman, J.B., (2002). Evaluation of protective clothing for handling small mammals potentially infected with aerosol-borne zoonotic agents, *Intermountain Journal of Sciences*, Vol. 8(1).

Service:

Butte Silver Bow Health Board member (2009-present) (January 2015- present)

Montana Local Education Officer, Pacific Northwest Section of the American Industrial Hygiene Association, (2000-present).

Peer Reviewer, Journal of Environmental and Public Health (2014)

Grant Peer Reviewer, National Institute for Occupational Safety and Health – Total Worker Health Programs (2016)

Grant Peer Reviewer, National Institute for Occupational Safety and Health – Total Worker Health Programs (2017)

Tenure Application Reviewer, Colorado State University, College of Veterinary Med and Bio Sciences (2017)

Application Reviewer, National Institute for Occupational Safety and Health – Pittsburgh Mining Research Division – Advancing Exposure Monitoring for Airborne Particulates (2017)

Grant Peer Reviewer, National Institute for Occupational Safety and Health – National Occupational Research Agenda (2018)

Industrial Hygiene Program Reviewer, Air Force Institute of Technology – Dayton, Ohio (2018)

Professional Development in Last Five Years:

Attended 7 professional society conferences, presented at 3

JENNIFER L. CROWLEY BSN, RN, CLCP, MSCC, CADDCT, CDP

PROFILE

Registered Nurse with over 25 years of experience including professional care management, critical care, long-term care planning, worker's compensation, geriatric consulting and as medical service consultant and assessor for the long-term care industry. Jennifer is a Certified Life Care Planner and Medicare Set-Aside Certified Consultant serving private, personal and government entities with diverse needs.

Experience includes deposition and trial testimony as a long-term care planning expert in numerous cases involving catastrophic & personal injury. She is a Certified Dementia Practitioner and provides education on national standards for Alzheimer's disease and Dementia Care to professionals, caregivers, and community partners. She is author of *7 Steps to Long-Term Care Planning*, a guidebook for designing a road map for aging.

EXPERIENCE

June 2006-Present:

Eagleview Consulting, LLC DBA Eagleview West

Owner/Operating Manager

Kalispell, Montana

Professional Services include life care planning for catastrophic injury and/or complex disease, care management, comprehensive assessment services, coordination of care, elder issue resolution, education, training and outreach, and Medicare Set-Aside consulting.

Partnerships, Affiliations & Contracts:

- June 2001-Present:
LTCG, formerly Univita
Minneapolis, Minnesota
- September 2010-Present:
U.S. Dept. of Labor
Dept. of Federal Employee Compensation
Office of Worker's Compensation Programs
Denver District Office
Denver, Colorado
- August 2012-Present:
Genex, formerly M Hayes
Hunt Valley, Maryland
- May 2015-Present:
ANS Solutions
Somerville, New Jersey
- February 2016-Present:
Orchard Medical Consulting
Phoenix, Arizona
- February 2016-Present
National Multiple Sclerosis Society
Greater Northwest Chapter
Seattle, Washington
- September 2016-Present
Capgemini, formerly CHCS Services, Inc.
Pensacola, Florida

JENNIFER L. CROWLEY BSN, RN, CLCP, MSCC, CADDCT, CDP

EXPERIENCE Continued

June 1999-Aug 2014: **Kalispell Regional Medical Center**

Kalispell, Montana

Intensive Care Unit, Charge Nurse for over 10 years

Case Manager Discharge Planner RN for 3 years, providing discharge planning, insurance review, coordination of care, status determination based on utilization standards and compliance regulations.

Feb. - May 1999:

Preferred Mobile Nurses

Greeley, Colorado

Travel Nurse Assignment: Benefis Hospital, Great Falls, Montana. Clinical Support Nurse, with specialization in the critical care and progressive care units.

July 1998-Feb. 1999: **Davis-Smith, Inc.**

Southfield, Michigan

Independent Contractor at Blue Care Network of Southeastern Michigan providing utilization & medical review for this HMO division of Blue Cross Blue Shield of SE Michigan

Jan 1997-1998

United States Peace Corps

Papua New Guinea, South Pacific Asia

Rural Community Development Facilitator

April 1996-Dec 1996 **Detroit Medical Center**

Gershenson Radiation Oncology Center, Detroit, Michigan

Radiation Oncology/Gamma Knife Nurse

Aug 1995-Apr 1996 Harper Hospital

Surgical Intensive Care Unit, Staff Nurse

July 1993-Aug 1995 **Garden City Osteopathic Hospital**

Garden City, Michigan; Specialty Care Unit, Staff Nurse

EDUCATION

Ohio State University

Columbus, Ohio

June 1993

Bachelors of Science in Nursing

Kaplan University

January 2009

Life Care Planning

University of Florida

June 2012

Medicare Set-Aside Consultant

JENNIFER L. CROWLEY BSN, RN, CLCP, MSCC, CADDCT, CDP

CERTIFICATIONS Certified Life Care Planner (CLCP)
Medicare Set-Aside Certified Consultant (MSCC)
Certified Dementia Practitioner (CDP)
Certified Alzheimer's Disease & Dementia Care Trainer (CADDCT)

PROFESSIONAL AFFILIATIONS & MEMBERSHIPS

International Academy of Life Care Planners (IALCP)
International Association of Rehabilitation Professionals (IARP)
Health Care Transitions Coalition, professional group, Kalispell, MT
Kalispell Chamber of Commerce, Kalispell, MT
Montana Gerontology Society, Statewide
Alzheimer's Disease & Related Dementias Work Group for completion of
State plan for Alzheimer's (Montana)
National Council of Certified Dementia Practitioners (NCCDP)

Publications

Crowley, J. January 2015. Housing Considerations for Dementia. *Montana 55: Annual Housing Guide*. Lee Enterprises, Missoula, Montana., 28-29.

October/November 2013. The Journey to Successful Aging with Dementia. *Montana Senior News*. 30(1), 8.

7 Steps to Long Term Care Planning, 2017. Scott Publishing, Kalispell, Montana.

Crowley, J. 2018. Predicting long-term care: Determinants of probability. *Journal of Life Care Planning, International Association of Rehabilitation Professionals*. 16(3), 29-33.

Speaking Engagements & Presentations

Geriatric Mental Health Annual Conference, October 2014, Kalispell, MT: Alternative Therapies to Support Mental Health in the Aging Population.

Personal Touch Home Health Caregiver Staff Training, December 2014, Kalispell, MT: Dementia Basics

Montana Governor's Conference on Aging & Montana Gerontology Society Annual Conference, May 2015, Helena, MT: Designing a Road-Map for Aging with Alzheimer's.

International Symposium on Life Care Planning, September 2015, Scottsdale, AZ: LCP Methodology & Application in Elder Care Management.

Montana Gerontology Society Annual Conference, April 2016, Billings, MT: 7 Steps to Long-Term Care Planning.

The Springs of Whitefish, Winter Educations Series, March 23, 2017, Whitefish, MT: Communication Changes with Dementia: Strategies for Improvement

Area Agency on Aging Council Meeting, April 13, 2017: Alzheimer's Update

Immanuel Lutheran Communities, The Retreat, April 21, 2017: Financial Considerations for Long Term Care Planning, Expert Panel

Winter Educations Series, April 27, 2017, Whitefish, MT: When Moving Makes Sense-Planning for a Transition.

National Council of Certified Dementia Practitioners (NCCDP) Alzheimer's Disease & Dementia Care Seminar, ongoing training and continuing education, multiple locations throughout MT. 2017 Dates: January 21, March 4, May 6: Whitefish, MT; January 31: Kalispell, MT; May 24: Libby, MT. 2018 Dates: April 13: Kalispell, MT; May 17 & 18: Plains, MT; June 26: Browning, MT.

A Plus Home Care, Staff In-service, April 28, 2017, Kalispell, MT: Understanding Dementia & Communication Changes with Dementia, How to Improve Interaction.

Speaking Engagements & Presentations, continued

The Springs of Whitefish, Spring Education Series, May 25, 2017, Whitefish, MT: Meaningful Activities with Dementia: Strategies for Interaction.

International Association of Rehabilitation Professionals (IARP) 2017 annual conference, October 13, 2017, St. Louis, Missouri: 7 Steps to Long Term Care Planning: Designing a Road Map for Aging.

Flathead County Imagine IF staff education, October 20, 2017, Kalispell, MT: Aging Topics: Dementia

University of Montana Family Medical Residency didactic session, November 22, 2017, Missoula, MT: Advance Care Planning: Crucial Conversations & Patient Engagement.

Montana Gerontology Society 36th Annual Conference. April 27 2018, Bozeman, MT: 7 Steps to Long Term Care Planning: Redefining the Aging Life Care Plan.

R. Gunlikson & Associates CPAs P.C.

Certified Public Accountants

22 Second Avenue West, Suite 3300
Kalispell, Mt 59901
Phone 406 752-3449
Fax 406 756-6873
email rgacpa@centurytel.net

*Richard D. Gunlikson, CPA/Retired
Reed J. Gunlikson, CPA MBA*

*Nancy A. Iverson
Willa Manger*

Resume of Reed Gunlikson

CPA

Awarded August 1987
100% Shareholder R. Gunlikson & Associates CPAs PC (established Dec 1985)

Education

Bachelor of Science degree - University of Montana 1982
Masters of Business Administration - Gonzaga University 1983

Professional Associations

Montana Society of CPAs (member)
American Institute of CPAs (member)

Civic/Other Associations

Past Chairman of Kalispell Chamber of Commerce (July 2013 through December 2014)
Past Treasurer of Kalispell Chamber of Commerce (January 2012 through June 2013)
Current board member of Kalispell Chamber of Commerce (2009 through 2015)
Past board member and Chairman of combined Flathead/Glacier Booster club
Member of the Grizzly Scholarship Association
Past board member of the Salvation Army
Past board member of the Glacier Symphony and Chorale
Current Finance Council St Matthews Parish
Past Pastoral and Finance Councils St Matthews Parish
Rotary (Daybreak of Kalispell) Current Member
Current member of Flathead Valley Community College Accounting Advisor Board

Past Board seats (Private Industry)

Past board member of BankWest (Sold interest when Mountain West Bank acquired)
Past board member of Provident Financial Inc. (Assisted PF through bankruptcy)

Personal interests

My wife Mary Jo and Family
3 grown daughters all married, educated and working professional jobs
2 (and soon to be 3) grandchildren
Native Montanan (born in Cut Bank 1960)
Snow Skiing, Water Skiing and boating, Golfing, Bird Hunting, Shooting
Traveling

Past Work Experience

Trust Department – United Banks of Colorado 1983 – 1985
Roughneck, Gandy Dancer, Roofer, Glacier County Weed control

July 6, 2015