

CURRICULUM VITAE

Robert S. Zeiger, M.D., Ph.D.



2/22/22

Born: July 31, 1942, Brooklyn, New York

Education:

1963 B.A. with honors, Tulane University, New Orleans, Louisiana
1969 M.D. cum laude, Downstate Medical Center, New York, New York
1969 Ph.D., Downstate Medical Center, New York, New York

Professional Experience:

1969-1970 Intern in Pediatrics, Johns Hopkins Hospital, Baltimore, Maryland
1970-1972 Staff Associate, National Cancer Institute, N.I.H., Bethesda, Maryland
1972-1973 Resident in Pediatrics, Children's Hospital Medical Center, Boston, Massachusetts
1973-1975 Fellow in Medicine (Allergy), Children's Hospital Medical Center, Boston, MA
1973-1975 Research Fellow in Pediatrics, Harvard Medical School, Boston, Massachusetts
1975-1976 Associate in Allergy, Children's Hospital Medical Center, Boston, Massachusetts
1975-1976 Instructor in Pediatrics, Harvard Medical School, Boston, Massachusetts
1976-1977 Staff Allergist, Southern California Permanente Medical Group, San Diego, California
1976-1984 Clinical Assistant Professor Pediatrics, University of California, San Diego, La Jolla, CA
1984-1990 Clinical Associate Professor Pediatrics, University of California, San Diego, La Jolla, CA
1991-2012 Clinical Professor Pediatrics, University of California, San Diego, La Jolla, CA
1977-2000 Chief, Department of Allergy, Southern California Permanente Medical Group, San Diego, CA
2000-Present Director, Allergy Research, Southern California Permanente Medical Group, San Diego
2000-Present Senior Physician Investigator, Southern California Permanente Medical Group, San Diego, CA
2021- Clinical Professor Department of Clinical Science for the Kaiser Permanente Bernard J. Tyson School of Medicine

Memberships:

Phi Sigma Alpha
Phi Eta Sigma
Diplomate, American Board of Pediatrics, 1975, Certificate # 18496
Diplomate, American Board of Allergy-Immunology, 1975, Certificate #2053
San Diego Allergy Society
Los Angeles Allergy Society
American Thoracic Society
California Society for Allergy and Immunology Joint Council of Allergy and Immunology Society for Pediatric Research, 1984
Fellow - American Academy of Allergy and Clinical Immunology, 1982
Fellow - American Academy of Pediatrics, 1985
Scientific Fellow - ACAAI, 2020

Honors:

Phi Beta Kappa, 1962
Alpha Omega Alpha, 1968

Pfizer Honor Scholarship, 1967-69
USPHS Special Fellow, 1973-76
Charles A. Janeway Scholar of Pediatric Medicine, 1975
American Academy of Allergy Travel Award, 1975
Hood Foundation Grantee, 1975-77
International Committee of the American Academy of Allergy Award, 1979
Mead Johnson Clinical Pediatric Scholar for UCSD School of Medicine, 1991
Dale Daniel Exceptional Physician of the Year Award, SCPMG, 1995
Brett Ratner Award, American Academy of Pediatrics, 2000
AAAAI Distinguished Physician of the Year, 2001

Editorial Boards:

Editorial Family Practice Survey, 1983-1985
Am J Rhinology (Co-editor abstract section) 1990-1994
Pediatric Allergy and Immunology 1990-1994
J Allergy Clinical Immunology 1985-1990, 1999-2004
Deputy Editor; J Allergy Clinical Immunology: In Practice: 2012- present

Scientific Boards/Committee:

Medical Advisory Board, National Tay-Sachs and Allied Disease Assoc., 1973-1979
Advisory Committee, NIH Childhood Asthma Management Program, 1991-1992
Member Kaiser Permanente Interregional Task Force on Asthma 1997-2000
Chair, Clarissa Sosin Allergy Research Foundation, Inc., 1995-2000
Chair, Kaiser Permanente Pediatric Asthma Task Force: 1992-1997
American Academy of Allergy, Asthma and Immunology Chair, Committee on Adverse Reactions to Food, 1999-2001

Data Safety Monitoring Boards:

Genentech: HAE3973g DMC: Omalizumab for peanut allergy: 2004-2005
Novartis: QGE031 DMC: Anti-IgE for peanut allergy: 2011
Allergen Research Corporation/Aimmune: Oral peanut immunotherapy: 2014-2015
NHLBI: Childhood Adenotonsillectomy (ChAt): 2007-2016

BIBLIOGRAPHY

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Original Articles in Refereed Journals

1. **Zeiger, R.S.**, Salomon, R., and Peacock, A.C.: Isolation of mouse satellite DNA by composite polyacrylamide gel electrophoresis. *Biochemistry* 10:4219-4223, 1971.
2. **Zeiger, R.S.**, Salomon, R., Kinoshita, N., and Peacock, A.C.: The binding of 9, 10-Dimethyl-I, 2-benzanthracene to mouse epidermal satellite DNA in vitro. *Cancer Res.* 32:643-647, 1972.
3. **Zeiger, R.S.**, Salomon, R., Dingman, W.W. and Peacock, A.C.: Role of base composition in the electrophoresis of microbial and crab DNA in polyacrylamide gels. *Nature (New Biol.)* 238:65-69, 1972.

4. **Zeiger, R.S.**, Salomon, R., Dingman, W.W., and Peacock, A.C.: Role of base composition in the electrophoresis of heat-treated DNA from HeLa and mouse cells in polyacrylamide gels. *Biochemistry* 13:3388-3393, 1974.
5. Kaback MM, **Zeiger RS**, Reynolds LW, Sonneborn M. Approaches to the control and prevention of Tay-Sachs disease. *Prog Med Genet.* 1974;10:103-34. PMID: 4620174
6. **Zeiger, R.S.**, Yurdin, L. and Twarog, F.J.: Histamine Metabolism I. Thin layer radiochromatographic assays for histaminase and histamine decarboxylase enzyme activities. *J. Lab. Clin. Med.* 87:1065-1074, 1976.
7. **Zeiger, R.S.**, Yurdin, D.L. and Colten, H.R.: Histamine Metabolism. II. Cellular and subcellular localization of the catabolic enzymes, histaminase, and histamine methyl transferase in human leukocytes. *J. Allergy Clin. Immunol.* 58:172-179, 1976.
8. **Zeiger, R.S.**, Twarog, F.J. and Colten, H.R.: Histaminase release from human granulocytes. *J. Exp. Med.*144:1049-1061, 1976.
9. **Zeiger, R.S.** and Colten, H.R.: Histaminase release from human eosinophils. *J. Immunol.* 118:540-543, 1977.
10. Soter, N., Joshi, N., Twarog, F.J., Rothman, P., **Zeiger, R.S.**, Colten, H.R.: Delayed cold induced urticaria: A dominantly inherited disorder. *J. Allergy Clin. Immunol.* 59:294-297, 1977.
11. Herman, J.M., Rosner, I.K., Davis, A.E., **Zeiger, R.S.**, Arnaout, M.A., and Colten, H.R.: Complement dependent histaminase release from human granulocytes. *J. Clin. Invest.* 63:1195-1202, 1979.
12. **Zeiger, R.S.**, Schatz, M., Sperling, W., Simon, R.A., and Stevenson, D.D.: Efficacy of troleandomycin in outpatients with severe corticosteroid-dependent asthma. *J. Allergy Clin. Immunol.* 66:438-446, 1980.
13. Melewicz, F.M., **Zeiger, R.S.**, Mellon, M.H., O'Connor, R.S., and Spiegelberg, H.L.: Increased IgE-dependent cytotoxicity by blood mononuclear cells of allergic patients. *Clin. Immunol.* 43:526-533, 1981.
14. Melewicz, F.M., **Zeiger, R.S.**, Mellon, M.H., O'Connor, R.D., and Spiegelberg, H.L.: Increased peripheral blood monocytes with Fc receptors for IgE in patients with severe allergic disorders. *J. Immunol.*126:1592-1595, 1981.
15. Pleskow, W.W., Stevenson, D.D., Mathison D.A., Simon, R., **Zeiger, R.S.**, and Schatz, M.: Aspirin "desensitization" in aspirin-sensitive asthmatics: Characterization of the refractory period. *J. Allergy Clin. Immunol.* 69:11-19, 1982.
16. Mellon, M., Harden, K., Anderson, P., and **Zeiger, R.S.**: The effectiveness and safety of nebulized cromolyn solution in young childhood asthmatics. *Immun. Allergy Practice* 4:168-172, 1982.

17. Pleskow, W.W., Stevenson, D.D., Mathison, D.A., Simon, R.A., Schatz, M., and **Zeiger, R.S.**: Aspirin-sensitive rhinosinusitis/asthma: spectrum of adverse reactions to aspirin. *J. Allergy Clin Immunol.* 71:574-579, 1983.
18. Lumry, W.R., Curd, J., **Zeiger, R.S.**, Pleskow, W.W., and Stevenson, D.D.: Aspirin-sensitive rhinosinusitis: The clinical syndrome and effects of aspirin administration. *J. Allergy Clin. Immunol.* 71:580-587, 1983.
19. Spiegelberg, H.L., Plummer, J.M., Ruedi, J., Thompson, L., Mellon, M., and **Zeiger, R.S.**: Lack of Pokeweed mitogen induced IgE formation in vitro by human peripheral blood mononuclear cells. Detection of crossreacting idiotypic determinants on polyclonal Ig by antibodies to a single IgE myeloma protein. *J. Immunol.* 131:3001-3005, 1983.
20. Thompson, L.F., Mellon, M.N., **Zeiger, R.S.** and Spiegelberg, H.L.: Characterization with monoclonal antibodies of T lymphocytes bearing Fc receptors for IgE (T cells) in atopic patients. *J. Immunol.* 31:2772-2776, 1983.
21. Hamburger, R.N., Heller, S., Mellon, M.H., O'Connor, R.D., **Zeiger, R.S.**: Current status of the clinical and immunologic consequences of a prototype allergic disease prevention program. *Ann. Allergy* 51 Part II:281-290, 1983.
22. Stevenson, D.D., Pleskow, W.W., Simon, R.A., Mathison, D.A., Lumry, W.R., Schatz, M., **Zeiger, R.S.**: Aspirin-sensitive rhinosinusitis: A double-blind crossover study of treatment with aspirin. *J. Allergy Clin. Immunol.* 73:500-507, 1984.
23. Katz, A.J., Twarog, F.J., **Zeiger, R.S.**, Falchuk, Z.M.: Milk-sensitive and eosinophilic gastroenteritis: Similar clinical features with contrasting mechanisms and clinical course. *J. Allergy Clin. Immunol.* 74:72-78, 1984.
24. **Zeiger, R.S.**: Atopy in infancy and early childhood: Natural history and role of skin testing. *J. Allergy Clin. Immunol.* 75:633-639, 1985.
25. **Zeiger, R.S.**, Heller, S., Mellon, M., O'Connor, R. and Hamburger, R.N.: Effectiveness of dietary manipulation in the prevention of food allergy in infants. *J. Allergy Clin. Immunol.* 78:224-238, 1986.
26. Grammar, L., Schafer, M., Bernstein, D., Schatz, M., **Zeiger, R.S.**, and Patterson, R.: Prevention of chymopapain anaphylaxis by screening chemonucleolysis candidates with cutaneous chymopapain testing. A preliminary report. *Clin. Orthop.* 221:202, 1987.
27. Gardner, M., Schatz, M., Cousins, L., and **Zeiger, R.S.**: Longitudinal effects of pregnancy on the pharmacokinetics of theophylline. *European J. Clin. Pharmacol.* 32:289-206, 1987.
28. Schatz, M., **Zeiger, R.S.**, Harden, K.M., et al.: The safety of inhaled beta agonist bronchodilators during pregnancy. *J. Allergy Clin. Immunol.* 82:686-695, 1988.
29. Blumenthal, M.N., Selcow, J., Spector, S., **Zeiger, R.S.**: A multicenter evaluation of the clinical benefits of cromolyn sodium aerosol (MDI) in the treatment of asthma. *J. Allergy Clin. Immunol.* 81:681-687, 1988.

30. Ferreri, N.R., **Zeiger, R.S.**, and Spiegelberg, H.L.: IgE-induced release of leukotrienes C₄ and B₄ by monocytes isolated from patients with atopic dermatitis. *J. Allergy Clin. Immunol.* 82:556-567, 1988.
31. Schatz, M., Harden, F., Forsythe, A., **Zeiger, R.S.**, et al. The course of asthma during pregnancy, postpartum, and with successive pregnancies. A prospective analysis. *J. Allergy Clin. Immunol.* 81:509-21, 1988.
32. Grammar, L., Schafer, M., Bernstein, D., Schatz, M., **Zeiger, R.S.**, and Patterson, R.: Prevention of chymopapain anaphylaxis by screening chemonucleolysis candidates with cutaneous chymopapain testing. *Clin. Orthop.* 234:12-15, 1988.
33. Bock, S.A., Sampson, H.A., Atkins, F.M., **Zeiger, R.S.**, et al.: Double-blind, placebo-controlled food challenge (DBPCFC) as an office procedure: A manual. *J. Allergy Clin. Immunol.* 82:986-997, 1988.
34. **Zeiger, R.S.**, Heller, S., Mellon, M.H., et al.: Effect of combined maternal and infant food allergen avoidance on development of atopy in early infancy: A randomized study. *J. Allergy Clin. Immunol.* 84:72-89, 1989.
35. Schatz, M., **Zeiger, R.S.**, Hoffman C.P., et al. Intrauterine growth is related to gestational pulmonary function in pregnant asthmatic women. *Chest* 98:389-392, 1990.
36. Schatz, M., **Zeiger, R.S.**, Hoffman, C.P., et al.: Increased transient tachypnea of the newborn in infants of asthmatic mothers. *Am. J. Dis. Child.* 145:156-158, 1991.
37. **Zeiger, R.S.**, Heller, S., Mellon, M.H., et al.: Facilitated referral to asthma specialist reduces relapses in asthma emergency room visits. *J. Allergy Clin. Immunol.* 86:1160-1168, 1991.
38. Webb, L.Z., Kuykendall, D.H., **Zeiger, R.S.**, et al. The impact of status asthmaticus practice guidelines on patient outcome and physician behavior. *Quality Rev Bull* 18:471-476, 1992.
39. Arlian, L.G., Bernstein, D., Bernstein I.L., Friedman, S., Grant, A., Lieberman, P., Lopez, M., Metzger, J., Platts-Mills, T., Schatz, M., Spector, S., Wasserman, S.I., and **Zeiger, R.S.**: Prevalence of dust mites in the homes of asthmatics living in eight different geographical areas of the United States. *J Allergy Clin Immunol* 90:292-300, 1992.
40. **Zeiger, R.S.**, Heller, S., Mellon, M.H., et al.: Genetic and environmental factors affecting the development of atopy through age 4 in children of atopic parents: A prospective randomized study of food allergen avoidance. *Pediatr Allergy Immunol* 3:110-127, 1992.
41. **Zeiger, R.S.**, Heller, S. Development of nasal basophilic cells and nasal eosinophils from age 4 months through 4 years in children of atopic parents. *J Allergy Clin Immunol* 91:723-734, 1993.
42. Schatz, M., Dudl, J., **Zeiger, R.S.**, et al.: Osteoporosis in corticosteroid treated asthmatic patients: Clinical correlates. *Allergy Proc* 14:341-345, 1993.
43. Hovell, M.F., Meltzer, S.B., Zakarian, J.M., Wahlgren, D.R., **Zeiger, R.S.**, et al. Reduction of environmental tobacco smoke exposure among asthmatic children: A controlled trial. *Chest* 106:440-6, 1994.

44. **Zeiger, R.S.**, Heller, S.: The development and prediction of atopy in high-risk children: Follow-up at age 7 years in a prospective randomized study of combined maternal and infant food allergen avoidance. *J Allergy Clin Immunol* 95:1179-90, 1995.
45. Schatz, M., **Zeiger, R.S.**, Hoffman, C.P., et al.: Perinatal outcomes in the pregnancies of asthmatic women: A prospective controlled analysis. *Am J Respir Care Crit Care Med* 151:1170-4, 1995.
46. **Zeiger, R.S.**: Secondary prevention of allergic disease: an adjunct to primary prevention. *Pediatr Allergy Immunol* 6:127-138, 1995.
47. Delfino R.J., Coate B.D., **Zeiger R.S.**, et al. Daily asthma severity in relation to personal ozone exposure and outdoor fungal spores. *Am J Resp Crit Care Med* 154:633-641, 1996.
48. Delfino R. J., **Zeiger R.S.**, Seltzer J., et al. The effect of outdoor fungal spore concentrations on daily asthma severity. *Environ Health Perspectives*. 105:622-635, 1997.
49. Schatz M., **Zeiger R.S.**, Harden K., Hoffman C, Petitti D. The safety of asthma and allergy medications during pregnancy. *J Allergy Clin Immunol* 100:301-306; 1997.
50. Macy E., Falkoff R., **Zeiger R.S.** Skin testing with penicilloate and penilloate prepared by an improved method: Amoxicillin oral challenge in patients with negative skin test responses to penicillin reagents. *J Allergy Clin Immunol* 100: 586-591,1997.
51. James J.M., **Zeiger R.S.**, Lester M.R., et al. Safe administration of influenza vaccine to patients with egg allergy. *J Pediatrics* 133:624-8,1998.
52. CAMP Research Group. Design and implementation of a patient education program for a the camp asthma management program. *Annals Allergy Asthma Immunol* 81:571-579, 1998.
53. Delfino RJ, **Zeiger RS**, Seltzer JM, Street DH. Symptoms in pediatric asthmatics and air pollution: Differences in effects by symptom severity, anti-inflammatory medication use and particulate averaging time. *Env Health Perspectives* 106:751-761,1998.
54. Childhood Asthma Management Program Research Group: The Childhood Asthma Management Program (CAMP): Design, Rationale, and Methods. *Controlled Clinical Trials*. 1999; 20:91-120.
55. Childhood Asthma Management Program Research Group: Recruitment of participants into the Childhood Asthma Management Program (CAMP). I: Description of methods. *J Asthma* 36:217-237,1999.
56. **Zeiger, R.S.**, Dawson C., Weiss S. and Childhood Asthma Management Program Research Group. Relationships between duration of asthma and asthma severity among children in the Childhood Asthma Management Program (CAMP). 1999; *J Allergy Clin Immunol* 103:376-87.
57. Nelson H., Szeffler S., Jacobs J., Huss K., Shapiro G., Sternberg A. and the Childhood Asthma Management Program Research Group. The relationships among environmental allergen

- sensitization, allergen exposure, pulmonary function, and bronchial hyperresponsiveness in the Childhood Asthma Management Program. 1999; *J Allergy Clin Immunol* 104:775-785.
58. Bursch B., Schwankowsky L., Gilbert J., **Zeiger R.S.** Construction and validation of four childhood asthma self-management scales: parental barriers, child and parent self-efficacy, and parent belief in treatment efficacy. 1999; *J Asthma* 36:115-28.
 59. **Zeiger R.S.**, Sampson H.A., Bock S.A., Burks A.W. Jr., Harden K., Noone S., Martin D., Leong S., Wilson G. Soy allergy in infants and children with IgE-mediated cow's milk allergy. *J Pediatrics* 134:614-622,1999.
 60. Milgrom H., Fick R.B., Su J.Q., Reimann J.D., Bush R.K., Watrous M.L., Metzger W.J., for the rhuMAb-E25 study group. Treatment of allergic asthma with monoclonal anti-IgE antibody. *N Engl J Med* 341;1966-73, 1999.
 61. Yunginger J.W., Ahlstedt S., Eggleston P.A., Homburger H.A., Nelson H.S., Ownby D.R., Platts-Mills T.A., Sampson H.A., Sicherer S.H., Weinstein A.M., Williams P.B., Wood R.A., **Zeiger R.S.** Quantitative IgE antibody assays in allergic diseases. *J Allergy Clin Immunol* 105;1077-1084, 2000.
 62. Annett R., Aylward E., Lapidus J., Bender B., DuHamel T. and the Childhood Asthma Management Program Research Group. Neurocognitive functioning in children with mild and moderate asthma. *J Allergy Clin Immunol* 105;717-724, 1999.
 63. Weiss S., VanNatta M., **Zeiger R.S.** and the Childhood Asthma Management Program Research Group. Relationship between increased airway responsiveness and asthma severity in the Childhood Asthma Management Program (CAMP). *Am J Resp Crit Care* 162;50-56, 2000.
 64. Bender B., Annett R., Bartelson B., DuHamel T., Rand C., Strunk R and the Childhood Asthma Management Program Research Group. Relationship between disease and psychological adaptation in children in the Childhood Asthma Management Program and their families. *Arch Pediatr Adolesc Med* 154;706-713, 2000.
 65. Childhood Asthma Management Program Research Group., Szeffler S, Weiss S, Tonascia J, Adkinson NF, Bender B, Cherniack R, Donithan M, Kelly HW, Reisman J, Shapiro GG, Sternberg AL, Strunk R, Taggart V, Van Natta M, Wise R, Wu M, **Zeiger R.** Long-term effects of budesonide or nedocromil in children with asthma. *N Engl J Med.* 2000 Oct 12;343(15):1054-63.PMID: 11027739
 66. **Zeiger R.S.**, Schatz M. Effect of allergist intervention on patient-centered and societal outcomes: allergists as leaders, innovators, and educators. *J Allergy Clin Immunol* 106:995-1018, 2000.
 67. Schatz M., Harden K., Kagnoff M., **Zeiger R.S.**, Chilingar L. Developmental follow-up in 15-month-old infants of asthmatic vs. control mothers. *Pediatr Allergy Immunol* 12:149-153, 2001.
 68. Weiss S., Horner A., Shapiro G., Sternberg A. and the Childhood Asthma Management Program Research Group. The prevalence of environmental exposure to perceived asthma triggers in children with mild-to-moderate asthma: Data from the Childhood Asthma Management Program (CAMP). *J Allergy Clin Immunol* 107:634-640; 2001.

69. Huss K., Adkinson N.F., Eggleston P., Dawson C., Van Natta M., Hamilton R. and the Childhood Asthma Management Program Research Group. House dust mite and cockroach exposure are strong risk factors for positive allergy skin tests in the Childhood Asthma Management Program. *J Allergy Clin Immunol* 107:48-54; 2001.
70. Taylor SL, Hefle SL, Bindslev-Jensen C, Bock SA, Burks AW Jr, Christie L, Hill DJ, Host A, Hourihane JO, Lack G, Metcalfe DD, Moneret-Vautrin DA, Vadas PA, Rance F, Skrypec DJ, Trautman TA, Yman IM, **Zeiger RS** Factors affecting the determination of threshold doses for allergenic foods: How much is too much? *J Allergy Clin Immunol* 109:24-30;2002
71. Delfino RJ, **Zeiger RS**, Seltzer JM, Street DH and McLaren CE: Association of asthma symptoms with peak particulate air pollution and effect modification by anti-inflammatory medication use. *Environ Health Perspectives* 110:A607-A617; 2002.
72. **Zeiger, RS**: Current issues with influenza vaccination in egg allergy. *J Allergy Clin Immunol* 110:834-840;2002.
73. Strunk RC, Sternberg AL, Bacharier LB, Szeffler SJ. For the Childhood Asthma Management Program (CAMP) Research Group. Nocturnal awakening caused by asthma in children with mild-to-moderate asthma in the childhood asthma management program. *J Allergy Clin Immunol*. 110:395-403;2002
74. Bacharier LB, Dawson C, Bloomberg GR, Bender B, Wilson L, Strunk RC for the Childhood Asthma Management Program Research Group. Hospitalization for asthma: Atopic, pulmonary function, and psychological correlates among participants in the Childhood Asthma Management Program. *Pediatrics* 112:e85-e92;2003.
75. Kelly HW, Strunk RC, Donithan M, Bloomberg GR, McWilliams BC, Szeffler S. For the Childhood Asthma Management Program (CAMP). Growth and bone density in children with mild-moderate asthma: A cross-sectional study in children entering the childhood asthma management program (CAMP). *J Peds* 142:286-291;2003.
76. Strunk RC, Szeffler J, Phillips BR, **Zeiger RS**, Chinchilli VM, Larsen G, Hodgdon K, Morgan W, Sorkness CA, Lemanske, Jr. RF for the Childhood Asthma Research and Education Network of the National Heart, Lung and Blood Institute. Relationship of exhaled nitric oxide to clinical and inflammatory markers of persistent asthma in children. *J Allergy Clin Immunol* 112:883-892;2003.
77. Schatz M, Rodriguez E, Falkoff R, **Zeiger RS**. The relationship of frequency of follow-up visits to asthma outcomes in patients with moderate persistent asthma. *J Asthma* 40:49-53,2003.
78. **Zeiger RS**. Food allergen avoidance in the prevention of food allergy in infants and children. *Pediatrics* 111:1662-1671;2003.
79. Muraro A, Dreborg S, Halken S, Host A, Niggemann B, Aalberse R, Arshad SH, Berg Av A, Carlsen KH, Duschen K, Eigenmann P, Hill D, Jones C, Mellon M, Oldeus G, Oranje A, Pascual C, Prescott S, Sampson H, Svartengren M, Vandenplas Y, Wahn U, Warner JA, Warner JO, Wickman M, **Zeiger RS**. Dietary prevention of allergic diseases in infants and small children.

Part III: Critical review of published peer-reviewed observational and interventional studies and final recommendations. *Pediatr Allergy Immunol.* 2004 Aug;15(4):291-307.

80. Taylor SL, Hefle SL, Bindslev-Jensen C, Atkins FM, Andre C, Bruijnzeel-Koomen C, Burks AW, Bush RK, Ebisawa M, Eigenmann PA, Host A, Hourihane JO, Isolauri E, Hill DJ, Knulst A, Lack G, Sampson HA, Moneret-Vautrin DA, Rance F, Vadas PA, Yunginger JW, **Zeiger RS**, Salminen JW, Madsen C, Abbott P. A consensus protocol for the determination of the threshold doses for allergenic foods: how much is too much? *Clin Exp Allergy.* 2004 May;34(5):689-95.
81. Guilbert RW, Morgan WJ, **Zeiger RS**, et al. Atopic characteristics of children with recurrent wheezing at high risk for the development of childhood asthma. *J Allergy Clin Immunol.* 2004;114:1282-7.
82. Guilbert TW, Morgan WJ, Krawiec M, Lemanske RF Jr, Sorkness C, Szeffler SJ, Larsen G, Spahn JD, **Zeiger RS**, et al. The Prevention of Early Asthma in Kids study: design, rationale and methods for the Childhood Asthma Research and Education network. *Control Clin Trials.* 2004;25:286-310.
83. **Zeiger RS**, Baker JW, Kaplan MS, Pearlman DS, Schatz M, Bird S, Hustad C, Edelman, J. Variability of symptoms in mild persistent asthma: Baseline data from the MIAMI Study. *Respiratory Medicine* 2004; 98:898-905.
84. Schatz M, Chen PT, Macy E, **Zeiger RS**. Dispensing of proton pump inhibitor medication is independently associated with subsequent asthma emergency hospital utilization. *Am J Med* 2005;118:431-4.
85. Macy E, Schatz M, Gibbons C, **Zeiger RS**. The prevalence of reversible airflow obstruction and /or methacholine hyperreactivity in random adult asthma patients identified by administrative data. *J Asthma* 2005; 42:213-220.
86. Schatz M, Mosen D, Apter AJ, **Zeiger RS**, Vollmer WM, Stibolt TB, Leong A, Johnson MS, Mendoza, G, Cook EF. Relationship of validated psychometric tools to subsequent medical utilization for asthma. *J Allergy Clin Immunol.* 2005;115:564-70.
87. Schatz M, Mosen D, Apter AJ, **Zeiger RS**, et al. Relationships among quality of life, severity, and control measures in asthma: an evaluation using factor analysis. : *J Allergy Clin Immunol.* 2005;115:1049-55.
88. Szeffler SJ, Phillips BR, Martinez FD, Chinchilli VM, Lemanske RF, Strunk RC, **Zeiger RS**, Larsen G, Spahn JD, Bacharier LB, Bloomberg GR, Guilbert TW, Heldt G, Morgan WJ, Moss MH, Sorkness CA, Taussig LM. Characterization of within-subject responses to fluticasone and montelukast in childhood asthma. *J Allergy Clin Immunol.* 2005;115:233-42.
89. Friedman NJ, **Zeiger RS**. The role of breast-feeding in the development of allergies and asthma. *J Allergy Clinical Immunol* 2005; 115:1238-48.
90. **Zeiger RS**, Bird S, Kaplan MS, Pearlman DS, Schatz M, Orav J, Hustad C, Edelman, J. Short-term and long-term asthma control in patients with mild persistent asthma receiving montelukast or fluticasone: A randomized controlled trial. *Am J Med,* 2005; 118:649-657.

91. Schatz M, **Zeiger RS**, Mosen D, Apter AJ, et al. Improved asthma outcomes from allergy specialist care : a population-based cross sectional analysis. *JACI*, 2005, 116:1307-13.
92. Schatz M, Gibbons C, Nelle C, Harden K, **Zeiger RS**. Impact of a Care Manager on the Outcomes of Higher Risk Asthmatic Patients: A Randomized Controlled Trial. *J Asthma* 2006;43:225-229.
93. Schatz M, **Zeiger RS**, Vollmer WM, Mosen D, Apter AJ, Stibolt TB et al. Validation of a beta-agonist long-term asthma control scale derived from computerized pharmacy data. *J Allergy Clin Immunol* 2006; 117(5):995-1000.
94. **Zeiger RS**, Szeffler SJ, Phillips BR, Schatz M, Martinez FD, Chinchilli VM et al. Response profiles to fluticasone and montelukast in mild-to-moderate persistent childhood asthma. *J Allergy Clin Immunol* 2006; 117(1):45-52.
95. Guilbert TW, Morgan WJ, **Zeiger RS**, Mauger DT, Boehmer SJ, Szeffler SJ et al. Long-term inhaled corticosteroids in preschool children at high risk for asthma. *N Engl J Med* 2006; 354(19):1985-97.
96. Tantisira KG, Fuhlbrigge AL, Tonascia J, Van Natta M, **Zeiger RS**, Strunk RC, Szeffler SJ, Weiss ST; for the Childhood Asthma Management Program Research Group. Bronchodilation and bronchoconstriction: Predictors of future lung function in childhood asthma. *J Allergy Clin Immunol*. 2006;117:1264-71.
97. Schatz M, **Zeiger RS**, Vollmer WM, Mosen D, Cook EF. Determinants of future long-term asthma control. *J Allergy Clin Immunol*. 2006 Nov;118(5):1048-53.
98. Schatz M, **Zeiger RS**, Vollmer WM, Mosen D, Apter AJ, Stibolt TB, Leong A, Johnson MS, Mendoza G, Cook EF. Development and validation of a medication intensity scale derived from computerized pharmacy data that predicts emergency hospital utilization for persistent asthma. *Am J Manag Care*. 2006 Aug;12(8):478-84.
99. Schatz M, **Zeiger RS**, Vollmer WM, Mosen D, Mendoza G, Apter AJ, Stibolt TB, Leong A, Johnson MS, Cook EF. The controller-to-total asthma medication ratio is associated with patient-centered as well as utilization outcomes. *Chest*. 2006 Jul;130(1):43-50.
100. Strunk RC, Weiss ST, Yates KP, Tonascia J, **Zeiger RS**, Szeffler SJ; for the CAMP Research Group. Mild to moderate asthma affects lung growth in children and adolescents. *J Allergy Clin Immunol*. 2006 Nov;118(5):1040-7.
101. Schatz M, Mosen DM, Kosinski M, Vollmer WM, Magid DJ, O'Connor E, **Zeiger R**. Validity of the Asthma Control Test™ Completed at Home. *Am J Manag Care*. 2007;13:661-667
102. Schatz M, Mosen DM, Kosinski M, Vollmer WM, Magid DJ, O'Connor E, **Zeiger RS**. Predictors of asthma control in a random sample of asthmatic patients. *J Asthma*. 2007;44(4):341-5.
103. Schatz M, Mosen DM, Kosinski M, Vollmer WM, Magid DJ, O'Connor E, **Zeiger RS**. The relationship between asthma-specific quality of life and asthma control. *J Asthma*. 2007;44(5):391-5.

104. Schatz M, **Zeiger RS**, Drane A, Harden K, Cibildak A, Oosterman JE, Kosinski M. Reliability and predictive validity of the Asthma Control Test administered by telephone calls using speech recognition technology. *J Allergy Clin Immunol.* 2007;119(2):336-43.
105. Sorkness CA, Lemanske RF, Mauger DT, Boehmer SJ, Chinchilli VM, Martinez FD, Strunk RC, Szeffler SJ, **Zeiger RS**, et al. Long-term comparison of 3 controller regimens for mild-moderate persistent childhood asthma: The Pediatric Asthma Controller Trial. *J Allergy Clin Immunol* 2007;119:64-72.
106. Bacharier LB, Phillips BR, Bloomberg GR, **Zeiger RS**, Paul IM, Krawiec M et al. Severe intermittent wheezing in preschool children: a distinct phenotype. *J Allergy Clin Immunol* 2007; 119(3):604-10.
107. Rand C, Bilderback A, Schiller K, Edelman JM, Hustad CM, **Zeiger RS**. Adherence with montelukast or fluticasone in a long-term clinical trial: Results from the Mild Asthma Montelukast Versus Inhaled Corticosteroid Trial. *J Allergy Clin Immunol* 2007;119(4):916-23.
108. Liu AH, **Zeiger RS**, Sorkness C, Mahr T, Ostrom N, Burgess S, Rosenzweig JC, and Manjunath R. Development and cross-sectional validation of the Childhood Asthma Control Test. *J Allergy Clin Immunol* 2007;119:817-25.
109. **Zeiger RS**, Hay JW, Contreras R, Chen W, Quinn VP, Seal B, Schatz M. Asthma costs and utilization in a managed care organization. *J Allergy Clin Immunol* 2008,121(4):885-92.
110. Schatz M, **Zeiger RS**, Mosen D, Vollmer WM, Asthma-specific Quality of Life and Subsequent Asthma Emergency Hospital Care. *Am J Manag Care.* 2008;14:206-211.
111. Juniper EF, Schatz M, Juniper BA, **Zeiger RS**. Evaluation of 2 interactive voice-response telephone versions of health-related quality-of-life questionnaires. *J Allergy Clin Immunol.* 2008 Sep;122(3):654-5.
112. Høst A, Halken S, Muraro A, Dreborg S, Niggemann B, Aalberse R, Arshad SH, von Berg A, Carlsen KH, Duschén K, Eigenmann PA, Hill D, Jones C, Mellon M, Oldeus G, Oranje A, Pascual C, Prescott S, Sampson H, Svartengren M, Wahn U, Warner JA, Warner JO, Vandenplas Y, Wickman M, **Zeiger RS**. Dietary prevention of allergic diseases in infants and small children. *Pediatr Allergy Immunol.* 2008;19:1-4.
113. Schatz M, **Zeiger RS**, Chen W, Yang SJ, Corrao MA, Quinn VP. The burden of rhinitis in a managed care organization. *Ann Allergy Asthma Immunol.* 2008;101:240–247.
114. Sharma S, Litonjua AA, Tantisira KG, Fuhlbrigge AL, Szeffler SJ, Strunk RC, **Zeiger RS**, Murphy AJ, Weiss ST; Childhood Asthma Management Program Research Group.. Clinical predictors and outcomes of consistent bronchodilator response in the childhood asthma management program. *JACI* 2008;122:921-8. PMC2947830.
115. Covar RA, Szeffler SJ, **Zeiger RS**, Sorkness CA, Moss M, Mauger DT, Boehmer SJ, Strunk RC, Martinez FD, Taussig LM. Factors associated with asthma exacerbations during a long-term clinical trial of controller medications in children. *J Allergy Clin Immunol* 2008;122:741-7. PMC3024439.

116. Strunk RC, Bacharier LB, Phillips BR, Szeffler SJ, **Zeiger RS**, et al. Azithromycin or montelukast as inhaled corticosteroid-sparing agents in moderate-to-severe childhood asthma study. *JACI* 2008;122:1138-44.
117. Bacharier LB, Phillips BR, **Zeiger RS**, Szeffler SJ, Martinez FD, Lemanske RF Jr, Sorkness CA, Bloomberg GR, Morgan WJ, Paul IM, Guilbert T, Krawiec M, Covar R, Larsen G, Mellon M, Moss MH, Chinchilli VM, Taussig LM, Strunk RC, CARE Network. Episodic use of an inhaled corticosteroid or leukotriene receptor antagonist in preschool children with moderate-to-severe intermittent wheezing. *J Allergy Clin Immunol.* 2008;122:1127-35. PMC2753208 .
118. Larsen GL, Morgan W, Heldt GP, Mauger DT, Boehmer SJ, Chinchilli VM, Lemanske RF, Martinez F, Stunk RC, Szeffler SJ, **Zeiger RS**, Taussig LM, Bacharier LB, Guilbert TW, Radford S, Sorkness CA. Impulse oscillometry versus spirometry in a long-term study of controller therapy for pediatric asthma *J Allergy Clin Immunol.* 2009;123:861-7. PMC4291457.
119. Strunk RC, Tonasica J, **Zeiger RS**, Sternberg AL, Szeffler SJ, Bender B Long-term budesonide or nedocromil treatment, once discontinued, does not alter the course of mild to moderate asthma in children and adolescents. *J Peds* 2009;154:682-7. PMC2942076.
120. Knuffman JE, Sorkness CA, Lemanske RF Jr, Mauger DT, Boehmer SJ, Martinez FD, Bacharier LB, Strunk RC, Szeffler SJ, **Zeiger RS**, Taussig LM; Childhood Asthma Research and Education Network of the National Heart, Lung, and Blood Institute. J Allergy Clin Immunol. Phenotypic predictors of long-term response to inhaled corticosteroid and leukotriene modifier therapies in pediatric asthma. *JACI* 2009; 123:411-416. PMC2662352.
121. Murphy KR, **Zeiger RS**, Kosinski M, Chipps B, Mellon M, Schatz M, Lampl K, Hanlon JT, Ramachandran S. Test for Respiratory and Asthma Control in Kids (TRACK™): a caregiver-completed questionnaire for preschool-aged children. *JACI* 2009,123:833-39.
122. Rivera-Spoljaric K, Chinchilli VM, Camera LJ, **Zeiger RS**, Paul IM, Phillips BR, Taussig LM, Strunk RC, Bacharier LB; Childhood Asthma Research and Education (CARE) Network. Signs and Symptoms that Precede Wheezing in Children with a Pattern of Moderate-to-Severe Intermittent Wheezing. *J Pediatr.* 2009 154:877-81.e4.
123. Rogers AJ, Tantisira KG, Fuhlbrigge AL, Litonjua AA, Lasky-Su JA, Szeffler SJ, Strunk RC, **Zeiger RS**, Weiss ST for the Childhood Asthma Management Program (CAMP) Research Group. Predictors of poor response during asthma therapy differ with definition of outcome. *Pharmacogenomics*, 2009;10:1231-42. PMC2746392.
124. Bacharier LB, Guilbert TW, **Zeiger RS**, Strunk RC, Morgan WJ, Lemanske RF Jr, Moss M, Szeffler SJ, Krawiec M, Boehmer S, Mauger D, Taussig LM, Martinez FD; Childhood Asthma Research and Education Network of the National Heart, Lung, and Blood Institute. Patient characteristics associated with improved outcomes with use of an inhaled corticosteroid in preschool children at risk for asthma.*J Allergy Clin Immunol.* 2009;123:1077-82. PMC2909590.
125. Beigelman A, Mauger DT, R. Phillips BR, **Zeiger, RS**, et al. Effect of elevated exhaled nitric oxide levels on the risk of respiratory tract illness in preschool-aged children with moderate-to-severe intermittent wheezing. *Ann Asthma Allergy Immun* 2009;103:108-13. PMC3652587.

126. Haselkorn T, Fish JE, **Zeiger RS**, Szeffler SJ, et al. Consistently very poorly controlled asthma by the impairment domain of the EPR-3 guidelines increases risk for future severe asthma exacerbations in The Epidemiology and Natural History of Asthma: Outcomes and Treatment Regimens study. *JACI* 2009;124:895-902.
127. Haselkorn T, **Zeiger RS**, Chipps BE, Mink DR, Szeffler SJ, et al. Recent asthma exacerbations predict future exacerbations in children with severe or difficult-to-treat asthma. *J Allergy Clin Immunol*, 2009;124:921-7.
128. **Zeiger RS**, Chipps BE, Haselkorn T, Rasouliyan L, Simons ER, Fish JE. Comparison of asthma exacerbations in pediatric and adult patients with severe or difficult-to-treat asthma. *JACI*, 2009;124:1106-1108.
129. Maykut R **Zeiger RS** and Brown MA. Asthma in Pediatric Patients—Unmet Need and Therapeutic Options. *Clinical Pediatrics*. 2010;49:915-30
130. Covar RA, Strunk R, **Zeiger RS**, Wilson LA, Liu AH, Weiss S, Tonascia J, Spahn JD, Szeffler SJ; Childhood Asthma Management Program Research Group. Predictors of remitting, periodic, and persistent childhood asthma. *J Allergy Clin Immunol*. 2010;125:359-366. PMC2844768.
131. Paul IM, Camera L, **Zeiger RS**, Guilbert TW, Bacharier LB, et al for the Childhood Asthma Research and Education (CARE) Network. Relationship Between Infant Weight Gain and Later Asthma. *Pediatr Allergy Immunol* 2010: 21: 82–89.
132. Getahun D, Strickland D, **Zeiger RS**, Fassett MJ, Chen W, Rhoads GG, Jacobsen SJ. Impact of Chorioamnionitis on Early Childhood Asthma. *Archives of Pediatrics & Adolescent Medicine Arch Pediatr Adolesc Med*. 2010;164(2):187-192.
133. Lemanske RF Jr, Mauger DT, Sorkness CA, Jackson DJ, Boehmer SJ, Martinez FD, Strunk RC, Szeffler SJ, **Zeiger RS**, Bacharier LB, Covar RA, Guilbert TW, Larsen G, Morgan WJ, Moss MH, Spahn JD, Taussig LM. Step-up Therapy for Children with Uncontrolled Asthma Receiving Inhaled Corticosteroids. *N Engl J Med*. 2010;362:975-85. PMC2989902.
134. Schatz M, **Zeiger RS**, Yang SJT, et al. Relationships of asthma control to asthma exacerbations using surrogate markers within a managed care database. *Am J Managed Care* 2010;16:327-333.
135. Cohen RT, Raby BA, Van Steen K, Fuhlbrigge AL, Celedón JC, Rosner BA, Strunk RC, **Zeiger RS**, Weiss ST. In utero smoke exposure and impaired response to inhaled corticosteroids in children with asthma. Childhood Asthma Management Program Research Group. *J Allergy Clin Immunol* 2010;126:491-7. PMC2937829.
136. Schatz M, **Zeiger RS**, Yang SJ, Chen W, Crawford WW, Sajjan SG, Allen-Ramey F. Persistent asthma defined using HEDIS versus survey criteria. *Am J Manag Care*. 2010 Nov 1;16(11):e281-8.
137. Schatz M, **Zeiger RS**. Ineffectiveness of telephone-based environmental control intervention to improve asthma outcomes. *J Allergy Clin Immunol*. 2010;126(4):873-5.

138. Rabinovitch N, Graber NJ, Chinchilli VM, Sorkness CA, **Zeiger RS**, Strunk RC, Bacharier LB, Martinez FD, Szeffler SJ; Childhood Asthma Research and Education Network of the National Heart, Lung, and Blood Institute. Urinary leukotriene E4/exhaled nitric oxide ratio and montelukast response in childhood asthma. *J Allergy Clin Immunol*. 2010;126(3):545-51.
139. Liu AH, **Zeiger RS**, Sorkness CA, Ostrom NK, Chipps BE, Rosa K, Watson ME, Kaplan MS, Meurer JR, Mahr TA, Blaiss MS, Piau-Louis E, McDonald J. The Childhood Asthma Control Test: retrospective determination and clinical validation of a cut point to identify children with very poorly controlled asthma. *J Allergy Clin Immunol*. 2010;126(2):267-73.
140. Brehm JM, Schuemann B, Fuhlbrigge AL, Hollis BW, Strunk RC, **Zeiger RS**, Weiss ST, Litonjua AA; Childhood Asthma Management Program Research Group. Serum vitamin D levels and severe asthma exacerbations in the Childhood Asthma Management Program study. *J Allergy Clin Immunol*. 2010;126:52-8. PMC2902692.
141. Haselkorn T, Szeffler SJ, Simons FE, **Zeiger RS**, Mink DR, Chipps BE, Borish L, Wong DA; TENOR Study Group. Allergy, total serum immunoglobulin E, and airflow in children and adolescents in TENOR. *Pediatr Allergy Immunol*. 2010;21(8):1157-65.
142. **Zeiger RS**, Schatz M, Zhang F, Crawford WW, Kaplan MS, Roth RM, Chen W. Association of exhaled nitric oxide to asthma burden in asthmatics on inhaled corticosteroids. *J Asthma*. 2010 Dec 15. [Epub ahead of print]. PMID: 21155706
143. **Zeiger RS**, Schatz M, Li Q, Zhang F, Purdum A, Chen W. Step-up care improves impairment in uncontrolled asthma: Administrative data study. *Am J Manag Care* 2010;16(12):897-906. PMID:21348560
144. Martinez FD, Chinchilli VM, Morgan WJ, Boehmer SJ, Lemanske RF Jr, Mauger DT, Strunk RC, Szeffler SJ, **Zeiger RS**, et al. Use of beclomethasone dipropionate as rescue treatment for children with mild persistent asthma (TREXA): a randomised, double-blind, placebo-controlled trial. *Lancet*, 2011;377:650-7. PMID: 21324520.
145. Chipps B, **Zeiger RS**, Murphy K, Mellon M, Schatz M, Kosinski M, Lampl K, Ramachandran S. Longitudinal Validation of the Test for Respiratory and Asthma Control in Kids in Pediatric Practices. *Pediatrics*. 2011;127:e737-e747. PMID: 21339276.
146. Schatz M, **Zeiger RS**, Yang SJ, Chen W, Kosinski M. Further validation and definition of the psychometric properties of the Asthma Impact Survey. *J Allergy Clin Immunol*. 2011;128:44-49. PMID: 21320719.
147. Wang L, Hollenbeak CS, Mauger DT, **Zeiger RS**, et al. Cost-effectiveness analysis of fluticasone versus montelukast in children with mild-to-moderate persistent asthma in the Pediatric Asthma Controller Trial. *J Allergy Clin Immunol*. 2011;127:161-6. PMC3061816.
148. Szeffler SJ, **Zeiger RS**, Haselkorn T, Mink DR, Kamath TV, Fish JE, Chipps BE. Economic burden of impairment in children with severe or difficult-to-treat asthma. *Ann Allergy Asthma Immunol*. 2011;107:110-119. PMID: 21802018.
149. Schatz M, **Zeiger RS**. Improving asthma outcomes in large populations. *J Allergy Clin Immunol*. 2011;128:273-7. PMID:21497885

150. **Zeiger RS**, Schatz M, Zhang F, Crawford WW, Kaplan MS, Roth RM, Chen W. Elevated exhaled nitric oxide is a clinical indicator of future uncontrolled asthma in asthmatic patients on inhaled corticosteroids. *J Allergy Clin Immunol.* 2011;128:412-4. PMID: 21807253
151. **Zeiger RS**, Mellon, M, Chipps B, et al. Test for Respiratory and Asthma Control in Kids (TRACK): Clinically meaningful changes in score. *J Allergy Clin Immunol.* 2011;128:983-8. PMID: 21906790
152. Schatz M, **Zeiger RS**, Yang SJ, Chen W, Crawford W, Sajjan S, Allen-Ramey F. The Relationship of Asthma Impairment Determined by Psychometric Tools to Future Asthma Exacerbations. *Chest.* 2012;141:66-72. PMID: 21868465.
153. Horner CC, Mauger D, Strunk RC, Graber NJ, Lemanske RF Jr, Sorkness CA, Szeffler SJ, **Zeiger RS**, Taussig LM, Bacharier LB; Childhood Asthma Research and Education Network of the National Heart, Lung, and Blood Institute. Most nocturnal asthma symptoms occur outside of exacerbations and associate with morbidity. *J Allergy Clin Immunol.* 2011;128:977-82; PMC3408598.
154. Guilbert TW, Mauger DT, Allen DB, **Zeiger RS**, Lemanske RF Jr, Szeffler SJ, Strunk RC, Bacharier LB, Covar R, Sorkness CA, Taussig LM, Martinez FD; Childhood Asthma Research and Education Network of the National Heart, Lung, and Blood Institute. Growth of preschool children at high risk for asthma 2 years after discontinuation of fluticasone. *J Allergy Clin Immunol.* 2011;128:956-63. PMC3224818.
155. **Zeiger RS**, Mauger DT, Bacharier LB, Guilbert TW, Martinez FD, Lemanske Jr RF, Strunk RC, Covar R, Szeffler SJ, Boehmer S, Jackson DJ, Sorkness CA, Gern JE, Kelly HW, Friedman NJ, Mellon MH, Schatz M, Morgan WJ, Chinchilli WM, Raissy HH, Bade E, Malka-Rais J, Beigelman A, and Taussig LM. Daily versus Intermittent Budesonide in High-Risk Toddlers with Recurrent Wheezing, *NEJM*, 2011;365:1990-2001. PMC3247621
156. Krishnan JA; Bender BG; Wamboldt FS; Szeffler SJ; Adkinson, NF Jr; **Zeiger RS**; Wise RA; Bilderback AL; Cynthia S Rand CS. Adherence to inhaled corticosteroids: An ancillary study of the Childhood Asthma Management Program clinical trial. *J Allergy Clin Immunol.* 2012;129:112-8. PMC3350797.
157. Schatz M, **Zeiger RS**, Yang SJ, et al. The Relationship of Asthma Impairment Determined by Psychometric Tools to Future Asthma Exacerbations. *Chest* 141: 66-72 2012. PMID: 21868465
158. **Zeiger RS**, Yegin A, Simons FER, Haselkorn T, et al. Evaluation of the National Heart, Lung, and Blood Institute guidelines impairment domain for classifying asthma control and predicting asthma exacerbations. *Ann Allergy Asthma Immunol* 2012;108:81-87. PMID: 22289725
159. Schatz M, **Zeiger RS**, Zhang R, Chen W. Development and Preliminary Validation of the Asthma Intensity Manifestations Score (AIMS) Derived from Asthma Control Test, FEV1, Fractional Exhaled Nitric Oxide, and Step Therapy Assessments. *J Asthma.* 2012;49:172-7. PMID: 22304003

160. Schatz M, **Zeiger RS**, Chen W, Yang SJ, Stanford RH, Garris CP. A comparison of the psychometric properties of the Mini-Rhinitis Quality of Life Questionnaire and the Rhinitis Control Assessment Test. *Am J Rhinol Allergy*. 2012;2:127-33. PMID: 22487290
161. Kelly HW, Sternberg AL, Lescher R, Fuhlbrigge AL, Williams P, **Zeiger RS**, Raissy HH, Van Natta ML, Tonascia J, Strunk RC; CAMP Research Group. Effect of inhaled glucocorticoids in childhood on adult height. *N Engl J Med*. 2012; 367:904-12. PMC3517799.
162. Himes BE, Jiang X, Hu R, Wu AC, Lasky-Su JA, Klanderman BJ, Ziniti J, Senter-Sylvia J, Lima JJ, Irvin CG, Peters SP, Meyers DA, Bleecker ER, Kubo M, Tamari M, Nakamura Y, Szeffler SJ, Lemanske RF Jr, **Zeiger RS**, et al. Genome-Wide Association Analysis in Asthma Subjects Identifies SPATS2L as a Novel Bronchodilator Response Gene. *PLoS Genet*. 2012; 8:e1002824. PMC3390407.
163. Papadopoulos NG, Arakawa H, Carlsen KH, Custovic A, Gern J, Lemanske R, Le Souef P, Mäkelä M, Roberts G, Wong G, Zar H, Akdis CA, Bacharier LB, Baraldi E, van Bever HP, de Blic J, Boner A, Burks W, Casale TB, Castro-Rodriguez JA, Chen YZ, El-Gamal YM, Everard ML, Frischer T, Geller M, Gereda J, Goh DY, Guilbert TW, Hedlin G, Heymann PW, Hong SJ, Hossny EM, Huang JL, Jackson DJ, de Jongste JC, Kalayci O, Ait-Khaled N, Kling S, Kuna P, Lau S, Ledford DK, Lee SI, Liu AH, Lockey RF, Lødrup-Carlsen K, Lötvalld J, Morikawa A, Nieto A, Paramesh H, Pawankar R, Pohunek P, Pongracic J, Price D, Robertson C, Rosario N, Rossenwasser LJ, Sly PD, Stein R, Stick S, Szeffler S, Taussig LM, Valovirta E, Vichyanond P, Wallace D, Weinberg E, Wennergren G, Wildhaber J, **Zeiger RS**. International consensus on (ICON) pediatric asthma. *Allergy*. 2012; 67:976-97. PMC4442800.
164. Chipps BE, **Zeiger RS**, Borish L, Wenzel SE, Yegin A, Hayden ML, Miller DP, Bleecker ER, Simons FE, Szeffler SJ, Weiss ST, Haselkorn T; TENOR Study Group. Key findings and clinical implications from The Epidemiology and Natural History of Asthma: Outcomes and Treatment Regimens (TENOR) study. *J Allergy Clin Immunol*. 2012; 130:332-342. PMC3622643.
165. Chipps BE, **Zeiger RS**, Dorenbaum A, Borish L, Wenzel SE, Miller DP, Hayden ML, Bleecker ER, Simons FE, Szeffler SJ, Weiss ST, Haselkorn T; TENOR Study Group. Assessment of asthma control and asthma exacerbations in the epidemiology and natural history of asthma: outcomes and treatment regimens (TENOR) observational cohort. *Curr Respir Care Rep*. 2012; 1:259-269. PMC3485530.
166. Schatz M, **Zeiger RS**. Telephone-based environmental control interventions in asthmatic patients: what are patients willing to do? *Ann Allergy Asthma Immunol*. 2012;109:99-102. PMID:22840249.
167. Himes BE, Sheppard K, Berndt A, Leme AS, Myers RA,**Zeiger RS**, et al. Integration of Mouse and Human Genome-Wide Association Data Identifies KCNIP4 as an Asthma Gene. *PLoS ONE* 2013; 8: e56179. PMC3572953.
168. Himes BE, Qiu W, Klanderman B, Ziniti J, Senter-Sylvia J, Szeffler SJ, Lemanske RF Jr, **Zeiger RS**, Strunk RC, Martinez FD, Boushey H, Chinchilli VM, Israel E, Mauger D, Koppelman GH, Nieuwenhuis MA, Postma DS, Vonk JM, Rafaels N, Hansel NN, Barnes K, Raby B, Tantisira KG, Weiss ST. ITGB5 and AGFG1 variants are associated with severity of airway responsiveness. *BMC Med Genet*. 2013;14:86. PMC3765944.

169. Beigelman A, King TS, Mauger D, **Zeiger RS**, Strunk RC, et al. Do oral corticosteroids reduce the severity of acute lower respiratory tract illnesses in preschool children with recurrent wheezing? *J Allergy Clin Immunol*. 2013; 131:1518-1525.. PMC3810170.
170. Schatz, M, **Zeiger RS**, Yang SJ, Weinstein AG, et al. Development and Preliminary Validation of the Adult Asthma Adherence Questionnaire. *J Allergy Clin Immunol Pract.*, 2013, 1:280-288. PMID: 24565486.
171. Schatz M, Hsu JW, **Zeiger RS**, Chen W, Dorenbaum A, Chipps BE, Haselkorn T. Phenotypes determined by cluster analysis in severe or difficult-to-treat asthma. *J Allergy Clin Immunol*. 2014;133:1549-56. PMID: 24315502
172. Schatz M, **Zeiger RS**, Zhang F, Chen W, Yang SJ, Camargo CA Jr. Overweight/Obesity and risk of seasonal asthma exacerbations.*J Allergy Clin Immunol Pract*. 2013;1:618-22. PMID: 24565709.
173. Litonjua AA, Lange NE, Carey VJ, Brown S, Laranjo N, O'Connor GT, Sandel M, Strunk RC, Bacharier LB, **Zeiger RS**, Schatz M, et al. The Vitamin D Antenatal Asthma Reduction Trial (VDAART): Rationale, design, and methods of a randomized, controlled trial of vitamin D supplementation in pregnancy for the primary prevention of asthma and allergies in children. *Contemp Clin Trials*. 2014;38:37-50. PMC4086903.
174. Calhoun WJ, Haselkorn T, Mink DR, Miller DP, Dorenbaum A, **Zeiger RS**. Clinical Burden and Predictors of Asthma Exacerbations in Patients on Guideline-based Steps 4-6 Asthma Therapy in the TENOR Cohort. *J Allergy Clin Immunol Pract*. 2014;2:193-200. PMID: 2460704.
175. Schatz M, **Zeiger RS**, Yang SJ, Chen W, Crawford W, Sajjan S, Allen-Ramey F. Change in asthma control over time: predictors and outcomes. *J Allergy Clin Immunol Pract*. 2014;2:59-64. PMID: 24565770.
176. Beigelman A, **Zeiger RS**, Kelly HW, Bacharier LB; for the Childhood Asthma Research and Education Network of the National Heart, Lung, and Blood Institute. The challenge of treating preschool wheezing episodes: The need for evidence-based approaches. *J Allergy Clin Immunol*. 2014;133:1016-7. PMC4121115.
177. Rabinovitch N, Mauger DT, Reisdorph N, Covar R, Malka J, Lemanske RF Jr, Morgan WJ, Guilbert TW, **Zeiger RS**, Bacharier LB, Szeffler SJ. Predictors of asthma control and lung function responsiveness to step 3 therapy in children with uncontrolled asthma. *J Allergy Clin Immunol*. 2014;133:350-6. PMC3960329 .
178. Beigelman A, **Zeiger RS**, Mauger D, Strunk RC, Jackson DJ, Martinez FD, Morgan WJ, Covar R, Szeffler SJ, Taussig LM, Bacharier LB; Childhood Asthma Research and Education (CARE) Network of the National Heart, Lung, and Blood Institute. The association between vitamin D status and the rate of exacerbations requiring oral corticosteroids in preschool children with recurrent wheezing. *J Allergy Clin Immunol*. 2014;133:1489-92. PMC4086617.
179. Howrylak JA, Fuhlbrigge AL, Strunk RC, **Zeiger RS**, Weiss ST, Raby BA; Childhood Asthma Management Program Research Group. Classification of childhood asthma phenotypes and long-term clinical responses to inhaled anti-inflammatory medications. *J Allergy Clin Immunol*. 2014;133:1289-300. PMC4047642.

180. Malka J, Mauger DT, Covar R, Rabinovitch N, Lemanske RF Jr, Spahn JD, Strunk RC, **Zeiger RS**, Morgan WJ, Szeffler SJ. Eczema and race as combined determinants for differential response to step-up asthma therapy. *J Allergy Clin Immunol*. 2014; 134:483-5. PMC4119870.
181. **Zeiger RS**, Schatz M, Li Q, Solari P, Zazzali JL, Chen W. Real-time asthma outreach reduces excessive short-acting beta-agonist use. A randomized study. *J Allergy Clin Immunol Pract*. 2014;2:445-456. PMID: 25017534.
182. **Zeiger RS**, Schatz M, Li Q, Chen W, Khatry DB, Gossage D, and Tran TN. High Blood Eosinophil Count Is A Risk Factor For Future Asthma Exacerbations in Adult Persistent Asthma. *J Allergy Clin Immunol: Pract*. 2014; 2:741-50. PMID: 26282160.
183. **Zeiger RS**, Schatz M, Li Q, Chen W, Khatry DB, Gossage D, Tran TN. The association of blood eosinophil counts to future asthma exacerbations in children with persistent asthma. *J Allergy Clin Immunol Pract*. 2015;3:283-287. PMID: 25609347
184. **Zeiger RS**, Schatz M, Dalal AA, Qian L, Chen W, Ngor EW, Suruki RY, Kawatkar AA. Utilization and Costs of Severe Uncontrolled Asthma in a Managed-Care Setting. *J Allergy Clin Immunol Pract*. 2016;4:120-129.. PMID: 26439182
185. Gerald JK, Gerald LB, Vasquez MM, Morgan WJ, Boehmer SJ, Lemanske RF Jr, Mauger DT, Strunk RC, Szeffler SJ, **Zeiger RS**, Bacharier LB, Bade E, Covar RA, Guilbert TW, Heidarian-Raissy H, Kelly HW, Malka-Rais J, Sorkness CA, Taussig LM, Chinchilli VM, Martinez FD. Markers of Differential Response to Inhaled Corticosteroid Treatment Among Children with Mild Persistent Asthma. *J Allergy Clin Immunol Pract*. 2015; 3:540-6. PMC4500671
186. Rank MA, Liesinger JT, Branda ME, Gionfriddo MR, Schatz M, **Zeiger RS**, Shah ND. Comparative safety and costs of stepping down asthma medications in patients with controlled asthma. *J Allergy Clin Immunol*. 2016, in press. PMID: 26506020
187. **Zeiger RS**, Schatz M, Chen W, Li Q, Khatry DB, Tran TN. Adherent uncontrolled adult persistent asthma: Characteristics and asthma outcomes. *J Allergy Clin Immunol Pract*. 2015;3:986-90. PMID: 26282160
188. Tran TN, **Zeiger RS**, Peters SP, Colice G, Newbold P, Goldman M, Chipps BE. Overlap of atopic, eosinophilic, and TH2-high asthma phenotypes in a general population with current asthma. *Ann Allergy Asthma Immunol*. 2016;116:37-42. PMID: 26707771
189. Schatz M, **Zeiger RS**, Yang SJ, Chen W, Sajjan S, Allen-Ramey F, Camargo CA Jr. Prospective Study on the Relationship of Obesity to Asthma Impairment and Risk. *J Allergy Clin Immunol Pract*. 2015;3:560-5. PMID: 25975622
190. Sicherer SH, Bock SA, **Zeiger RS**. Implications of the "Consensus Communication on Early Peanut Introduction in the Prevention of Peanut Allergy in High-Risk Infants" for Allergists, Primary Care Physicians, Patients, and Society. *J Allergy Clin Immunol Pract*. 2015;3(5):649-51.
191. **Zeiger RS**, Schatz M, Li Q, Chen W, Khatry DB, Tran TN. Characteristics and Outcomes of HEDIS-Defined Asthma Patients with COPD Diagnostic Coding. *J Allergy Clin Immunol Pract*. 2016;4:273-283. PMID: 26619923

192. Litonjua AA, Carey VJ, Laranjo N, Harshfield BJ, McElrath TF, O'Connor GT, Sandel M, Iverson RE Jr, Lee-Paritz A, Strunk RC, Bacharier LB, Macones GA, **Zeiger RS**, Schatz M, Hollis BW, Hornsby E, Hawrylowicz C, Wu AC, Weiss ST. Effect of Prenatal Supplementation With Vitamin D on Asthma or Recurrent Wheezing in Offspring by Age 3 Years: The VDAART Randomized Clinical Trial. *JAMA*. 2016;315:362-70. PMID: 26813209
193. Stempel DA, Szeffler SJ, Pedersen S, **Zeiger RS**, Yeakey AM, Lee LA, Liu AH, Mitchell H, Kral KM, Raphiou IH, Prillaman BA, Buaron KS, Yun Kirby S, Pascoe SJ; VESTRI Investigators. Safety of Adding Salmeterol to Fluticasone Propionate in Children with Asthma. *N Engl J Med*. 2016 Sep 1;375(9):840-9. PMID: 27579634
194. McGeachie MJ, Yates KP, Zhou X, Guo F, Sternberg AL, Van Natta ML, Wise RA, Szeffler SJ, Sharma S, Kho AT, Cho MH, Croteau-Chonka DC, Castaldi PJ, Jain G, Sanyal A, Zhan Y, Lajoie BR, Dekker J, Stamatoyannopoulos J, Covar RA, **Zeiger RS**, Adkinson NF, Williams PV, Kelly HW, Grasemann H, Vonk JM, Koppelman GH, Postma DS, Raby BA, Houston I, Lu Q, Fuhlbrigge AL, Tantisira KG, Silverman EK, Tonascia J, Weiss ST, Strunk RC; CAMP Research Group. Patterns of Growth and Decline in Lung Function in Persistent Childhood Asthma. *N Engl J Med*. 2016 May 12;374(19):1842-52. PMID: 27168434
195. McGeachie MJ, Yates KP, Zhou X, Guo F, Sternberg AL, Van Natta ML, Wise RA, Szeffler SJ, Sharma S, Kho AT, Cho MH, Croteau-Chonka DC, Castaldi PJ, Jain G, Sanyal A, Zhan Y, Lajoie BR, Dekker J, Stamatoyannopoulos J, Covar RA, **Zeiger RS**, Adkinson NF, Williams PV, Kelly HW, Grasemann H, Vonk JM, Koppelman GH, Postma DS, Raby BA, Houston I, Lu Q, Fuhlbrigge AL, Tantisira KG, Silverman EK, Tonascia J, Strunk RC, Weiss ST; CAMP Research Group. Genetics and Genomics of Longitudinal Lung Function Patterns in Asthmatics. *Am J Respir Crit Care Med*. 2016 Dec 15;194(12):1465-1474. PMID: 27367781
196. **Zeiger RS**, Schatz M, Dalal AA, Chen W, Sadikova E, Suruki RY, Kawatkar AA, Qian L. Blood Eosinophil Count and Outcomes in Severe Uncontrolled Asthma: A Prospective Study. *J Allergy Clin Immunol Pract*. 2017 Jan - Feb;5(1):144-153.e8. doi: 10.1016/j.jaip.2016.07.015. PMID: 27665383
197. **Zeiger RS**, Schatz M, Li Q, Chen W, Khatry DB, Tran TN. Burden of Chronic Oral Corticosteroid Use by Adults with Persistent Asthma. *J Allergy Clin Immunol Pract*. 2017 Jul - Aug;5(4):1050-1060.e9. doi: 10.1016/j.jaip.2016.12.023. Epub 2017 Feb 10. PMID: 28215604
198. Wolsk HM, Harshfield BJ, Laranjo N, Carey VJ, O'Connor G, Sandel M, Strunk RC, Bacharier LB, **Zeiger RS**, Schatz M, Hollis BW, Weiss ST, Litonjua AA. Vitamin D supplementation in pregnancy, prenatal 25(OH)D levels, race, and subsequent asthma or recurrent wheeze in offspring: Secondary analyses from the Vitamin D Antenatal Asthma Reduction Trial. *J Allergy Clin Immunol*. 2017 Mar 9. pii: S0091-6749(17)30217-8. doi: 10.1016/j.jaci.2017.01.013. [Epub ahead of print] PMID: 28285844
199. Schatz M, Sicherer SH, **Zeiger RS**. The Journal of Allergy and Clinical Immunology: In Practice - 2016 Year in Review. *J Allergy Clin Immunol Pract*. 2017 Mar - Apr;5(2):218-236. PMID: 28143692
200. Mirzakhani H, Litonjua AA, McElrath TF, O'Connor G, Lee-Parritz A, Iverson R, Macones G, Strunk RC, Bacharier LB, **Zeiger R**, Hollis BW, Handy DE, Sharma A, Laranjo N, Carey V, Qiu

- W, Santolini M, Liu S, Chhabra D, Enquobahrie DA, Williams MA, Loscalzo J, Weiss ST. Early pregnancy vitamin D status and risk of preeclampsia. *J Clin Invest*. 2016 Dec 1;126(12):4702-4715. doi: 10.1172/JCI89031. PMID: 27841759
201. Sordillo JE, Zhou Y, McGeachie MJ, Ziniti J, Lange N, Laranjo N, Savage JR, Carey V, O'Connor G, Sandel M, Strunk R, Bacharier L, **Zeiger R**, Weiss ST, Weinstock G, Gold DR, Litonjua AA. Factors influencing the infant gut microbiome at age 3-6 months: Findings from the ethnically diverse Vitamin D Antenatal Asthma Reduction Trial (VDAART). *J Allergy Clin Immunol*. 2017;139(2):482-491.e14. doi: 10.1016/j.jaci.2016.08.045. PMID: 27746239
202. **Zeiger RS**, Tran TN, Schatz M, Li Q, Chen W, Khatry D, Davis J, and Kawatkar AA. Drivers of Health Care Costs for Adults with Persistent Asthma. *J Allergy Clin Immunol Pract*. 2018, 6: 265-8. doi: 10.1016/j.jaip.2017.05.026. [Epub ahead of print] PMID: 28709819.
203. Chipps BE, Haselkorn T, Paknis B, Ortiz B, Bleecker ER, Kianifard F, Foreman AJ, Szeffler SJ, **Zeiger RS**, for the TENOR Study Group, More Than a Decade Follow-up in Severe or Difficult-to-Treat Asthma: TENOR II, *Journal of Allergy and Clinical Immunology* 2018;141;1590-7. doi:10.1016/j.jaci.2017.07.014.
204. Mirzakhani H, Carey VJ, McElrath TF, Laranjo N, O'Connor G, Iverson RE, Lee-Parritz , Strunk RC, Bacharier LB, Macones GA, **Zeiger RS**, Schatz M, Hollis B, Litonjua AA, Weiss ST. The Association of Maternal Asthma and Early Pregnancy Vitamin D with Risk of Preeclampsia: An Observation From Vitamin D Antenatal Asthma Reduction Trial (VDAART). *J Allergy Clin Immunol Pract*. 2017 Sep 8. pii: S2213-2198(17)30543-3. doi: 10.1016/j.jaip.2017.07.018. [Epub ahead of print]
205. Mirzakhani H, O'Connor G, Bacharier LB, **Zeiger RS**, Schatz MX, Weiss ST, Litonjua AA. Asthma control status in pregnancy, body mass index, and maternal vitamin D levels. *J Allergy Clin Immunol*. 2017 Jun 9. pii: S0091-6749(17)30928-4. doi: 10.1016/j.jaci.2017.03.053. [Epub ahead of print] PMID: 28606587
206. Lang JE, Fitzpatrick AM, Mauger DT, Guilbert TW, Jackson DJ, Lemanske RF Jr, Martinez FD, Strunk RC, **Zeiger RS**, Phipatanakul W, Bacharier LB, Pongracic JA, Holguin F, Cabana MD, Covar RA, Raissy HH, Tang M, Szeffler SJ; National Institutes of Health/National Heart, Lung and Blood Institute AsthmaNet.. Overweight/obesity status in preschool children associates with worse asthma but robust improvement on inhaled corticosteroids. *J Allergy Clin Immunol*. 2017 Dec 8. pii: S0091-6749(17)31738-4. doi: 10.1016/j.jaci.2017.09.043. [Epub ahead of print] PMID: 29273557
207. Lee-Sarwar K, Hauser R, Calafat AM, Ye X, O'Connor GT, Sandel M, Bacharier LB, **Zeiger RS**, Laranjo N, Gold DR, Weiss ST, Litonjua AA, Savage JH. Prenatal and early-life triclosan and paraben exposure and allergic outcomes. *J Allergy Clin Immunol*. 2017 Oct 27. pii: S0091-6749(17)31652-4. doi: 10.1016/j.jaci.2017.09.029. [Epub ahead of print] PMID: 29111213
208. Chipps BE, **Zeiger RS**, Luskin AT, Busse WW, Trzaskoma BL, Antonova EN, Pazwash H, Limb SL, Solari PG, Griffin NM, Casale TB. Baseline asthma burden, comorbidities, and biomarkers in omalizumab-treated patients in PROSPERO. *Ann Allergy Asthma Immunol*. 2017 Dec;119(6):524-532.e2. doi: 10.1016/j.anai.2017.09.056. Epub 2017 Oct 18. PMID: 29054589

209. **Zeiger RS**, Tran TN, Butler RK, Schatz M, Li Q, Khatry DB, Martin U, Kawatkar AA, Chen W. Relationship of Blood Eosinophil Count to Exacerbations in Chronic Obstructive Pulmonary Disease. *J Allergy Clin Immunol Pract.* 2018;6:944-54. doi: 10.1016/j.jaip.2017.10.004.PMID: 29153881
210. Schatz M, Sicherer SH, **Zeiger RS**. The Journal of Allergy and Clinical Immunology: In Practice 2017 Year in Review. *J Allergy Clin Immunol Pract.* 2018 Mar - Apr;6 (2):328-352. doi: 10.1016/j.jaip.2017.12.016. Epub 2018 Feb 1. PMID: 29397373.
211. Zeiger JS, **Zeiger RS**. Mental toughness latent profiles in endurance athletes. *PLoS One.* 2018 Feb 23;13(2):e0193071. doi: 10.1371/journal.pone.0193071. eCollection 2018. PMID: 29474398
212. Chipps BE, Bacharier LB; Farrar JR, Jackson DJ, Murphy KR, Phipatanaku W, Szeffler SJ, Teague WG, **Zeiger RS**. The Pediatric Asthma Yardstick: Recommendations for a sustained step-up in asthma therapy for poorly-controlled asthma. *Ann Allergy Asthma Immunol.* 2018 Apr 10. pii: S1081-1206(18)30253-9. doi: 10.1016/j.anai.2018.04.002. [Epub ahead of print] PMID: 29653238
213. Lee-Sarwar K, Kelly RS, Lasky-Su J, Moody DB, Mola AR, Cheng TY, Comstock LE, **Zeiger RS**, O'Connor GT, Sandel MT, Bacharier LB, Beigelman A, Laranjo N, Gold DR, Bunyavanich S, Savage JH, Weiss ST, Brennan PJ, Litonjua AA. Intestinal microbial-derived sphingolipids are inversely associated with childhood food allergy. *J Allergy Clin Immunol.* 2018 May 2. pii: S0091-6749(18)30628-6. doi: 10.1016/j.jaci.2018.04.016. [Epub ahead of print] PMID: 29729303.
214. Savage JH, Lee-Sarwar KA, Sordillo J, Bunyavanich S, Zhou Y, O'Connor G, Sandel M, Bacharier LB, **Zeiger R**, Sodergren E, Weinstock GM, Gold DR, Weiss ST, Litonjua AA. A prospective microbiome-wide association study of food sensitization and food allergy in early childhood. *Allergy.* 2018;73(1):145-152. doi: 10.1111/all.13232. Epub 2017 Aug 2. PMID: 28632934
215. Chen W, Schatz M, Liang Z, Li Q, Sadikova S, Zhang Z, Bagga S, and **Zeiger RS**. Controller Therapy in Asians and Whites with Persistent Asthma. *Asian Pac J Allergy Immunol DOI* 10.12932/AP-210617-0105. (In Press)
216. Bacharier LB, Covar RA, Haselkorn T, Iqbal A, Alvarez C, Mink DR, Chen H, **Zeiger RS**. Consistently Very Poorly Controlled Asthma is Associated with Greater Activity and School Impairment in Children with Severe or Difficult-to-Treat Asthma. *J Allergy Clin Immunol Pract.* 2018 Jun 5. pii: S2213-2198(18)30348-9. doi:10.1016/j.jaip.2018.05.026
217. Casale TB, Luskin AT, Busse W, **Zeiger RS**, Trzaskoma B, Yang M, Griffin NM, Chipps BE. Omalizumab Effectiveness by Biomarker Status in Patients with Asthma: Evidence From PROSPERO, A Prospective Real-World Study. *J Allergy Clin Immunol Pract.* 2019;7:156-64. doi: 10.1016/j.jaip.2018.04.043.
218. **Zeiger RS**, Schatz M, Yang SJ, Chen W. Fractional Exhaled Nitric Oxide-Assisted Management of Uncontrolled Persistent Asthma: A Real-World Prospective Observational Study. *Perm J.* 2019;23. doi: 10.7812/TPP/18-109. PMID: 31050641

219. Fitzpatrick AM, Bacharier LB, Guilbert TW, Jackson DJ, Szeffler SJ, Beigelman A, Cabana MD, Covar R, Holguin F, Lemanske RF Jr, Martinez FD, Morgan W, Phipatanakul W1, Pongratic JA, **Zeiger RS**, Mauger DT; NIH/NHLBI AsthmaNet. Phenotypes of Recurrent Wheezing in Preschool Children: Identification by Latent Class Analysis and Utility in Prediction of Future Exacerbation. *J Allergy Clin Immunol Pract*. 2018 Sep 26. pii: S2213-2198(18)30593-2. doi: 10.1016/j.jaip.2018.09.016. PMID: 30267890.
220. Guilbert T, **Zeiger RS**, Haselkorn T, Iqbal A, Alvarez C, Mink DR, Chipps BE, Szeffler SJ. Racial Disparities in Asthma-Related Health Outcomes in Children with Severe/Difficult-to-Treat Asthma. *J Allergy Clin Immunol Pract*. 2019 Feb;7(2):568-577. doi: 10.1016/j.jaip.2018.07.050. Epub 2018 Aug 29. PMID: 30172020.
221. Mirzakhani H, Carey VJ, McElrath TF, Qiu W, Hollis BW, O'Connor GT, **Zeiger RS**, Bacharier L, Litonjua AA, Weiss ST. Impact of Preeclampsia on the Relationship of Maternal Asthma with Offspring Asthma: An Observation from the VDAART Clinical Trial. *Am J Respir Crit Care Med*. 2019 Jan 1;199(1):32-42. doi: 10.1164/rccm.201804-0770OC. PMID: 30153046.
222. Lee-Sarwar K, Kelly RS, Lasky-Su J, Kachroo P, **Zeiger RS**, O'Connor GT, Sandel MT, Bacharier LB, Beigelman A, Laranjo N, Gold DR, Weiss ST, Litonjua AA. Dietary and Plasma Polyunsaturated Fatty Acids Are Inversely Associated with Asthma and Atopy in Early Childhood. *J Allergy Clin Immunol Pract*. 2018 Aug 24. pii: S2213-2198(18)30515-4. doi: 10.1016/j.jaip.2018.07.039. PMID: 3014536.
223. Karvonen A, Sordillo J, Gold D, Bacharier L, O'Connor G, **Zeiger RS**, Beigelman A, Weiss S, and Litonjua A. Gut Microbiota and Overweight in 3-year Old Children. *Int J Obes (Lond)*. 2019 Apr;43(4):713-723. doi: 10.1038/s41366-018-0290-z. Epub 2018 Dec 19. PMID: 30568265
224. Chipps BE, Bacharier LB, Murphy KR, Lang D, Farrar JR, Rank M, Oppenheimer J, **Zeiger RS**. The Asthma Controller Step-down Yardstick. *Annals of Allergy, Asthma & Immunology* 2018 Dec 11. pii: S1081-1206(18)31504-7. doi: 10.1016/j.anai.2018.12.004. [Epub ahead of print] PMID: 30550809
225. Schatz M, Sicherer SH, Khan D, **Zeiger RS**. The Journal of Allergy and Clinical Immunology: In Practice 2018 Highlights. *J Allergy Clin Immunol Pract*. *J Allergy Clin Immunol Pract*. 2019 Feb;7(2):393-411. doi: 10.1016/j.jaip.2018.12.007. Epub 2018 Dec 15. Review. PMID: 30557718.
226. Zeiger JS, Silvers WS, Fleegler EM, and **Zeiger RS**. Cannabis use behaviors are related to subjective effects to cannabis in active athletes. *PLoS One*. 2019 Jun 28;14(6):e0218998. doi: 10.1371/journal.pone.0218998. eCollection 2019. PMID: 31251769
227. Szeffler SJ, Raphiou I, **Zeiger RS**, Stempel D, Kral K, Pascoe S. Seasonal variation in asthma exacerbations in the AUSTRI and VESTRI studies. *ERJ Open Res*. 2019 Apr 26;5(2). pii: 00153-2018. doi: 10.1183/23120541.00153-2018. eCollection 2019 Apr. PMID: 31086795.
228. Mirzakhani H, Carey VJ, McElrath TF, Hollis BW, O'Connor GT, **Zeiger RS**, Bacharier L, Litonjua AA, Weiss ST. Maternal Asthma, Preeclampsia and Risk of Childhood Asthma at Age Six. *Am J Respir Crit Care Med*. 2019 May 6. doi: 10.1164/rccm.201901-0081LE. [Epub ahead of print] PMID: 3105928

229. Lee-Sarwar KA, Kelly RS, Lasky-Su J, **Zeiger RS**, O'Connor GT, Sandel MT, Bacharier LB, Beigelman A, Laranjo N, Gold DR, Weiss ST, Litonjua AA. Integrative analysis of the intestinal metabolome of childhood asthma. *J Allergy Clin Immunol*. 2019 Mar 23. pii: S0091-6749(19)30406-3. doi: 10.1016/j.jaci.2019.02.032. [Epub ahead of print] PMID: 30914378
230. Luo G, Stone BL, Koebnick C, He S, Au DH, Sheng X, Murtaugh MA, Sward KA, Schatz M, **Zeiger RS**, Davidson GH, Nkoy FL. Using Temporal Features to Provide Data-Driven Clinical Early Warnings for Chronic Obstructive Pulmonary Disease and Asthma Care Management: Protocol for a Secondary Analysis. *JMIR Res Protoc*. 2019 Jun 6;8(6):e13783. doi: 10.2196/13783. PMID: 31199308
231. Zeiger JS, Silvers WS, Fleegler EM, **Zeiger RS**. Age related differences in cannabis use and subjective effects in a large population-based survey of adult athletes. *Journal of Cannabis Research*. 2019; 1: July 29.
232. Lee-Sarwar KA, Kelly RS, Lasky-Su J, **Zeiger RS**, et al. Fecal short-chain fatty acids in pregnancy and offspring asthma and allergic outcomes. *J Allergy Clin Immunol Pract*. 2019 Sep 5. pii: S2213-2198(19)30759-7. doi: 10.1016/j.jaip.2019.08.036. [Epub ahead of print]
233. Caspard H, Ambrose CS, Tran TN, Chipps BE, **Zeiger RS**. Associations Between Individual Characteristics and Blood Eosinophil Counts in Adults with Asthma or COPD. *J Allergy Clin Immunol Pract*. 2019 Dec 28. pii: S2213-2198(19)31053-0. doi: 10.1016/j.jaip.2019.12.019. [Epub ahead of print] PMID: 31891826
234. Schatz M, Sicherer SH, Khan DA, **Zeiger RS**. The Journal of Allergy and Clinical Immunology: In Practice 2019 Highlights. *J Allergy Clin Immunol Pract*. 2020 Jan 21. pii: S2213-2198(20)30035-0. doi: 10.1016/j.jaip.2020.01.002. [Epub ahead of print] Review. PMID: 31980411
235. **Zeiger RS**, Schatz M, Butler RK, Weaver JP, Bali V, Chen W. Burden of Specialist-Diagnosed Chronic Cough in Adults. *J Allergy Clin Immunol Pract*. 2020 May;8(5):1645-1657.e7. doi: 10.1016/j.jaip.2020.01.054. Epub 2020 Feb 12. PMID: 32059869
236. Angel DM, **Zeiger RS**, Sicherer SH, Khan DA, Schatz M. JACI: In Practice Response to COVID-19 Pandemic. *J Allergy Clin Immunol Pract*. 2020 May;8(5):1475-1476. doi: 10.1016/j.jaip.2020.03.027. Epub 2020 Apr 6. PMID: 32272283
237. Fitzpatrick AM, Bacharier LB, Jackson DJ, Szeffler SJ, Beigelman A, Cabana M, Covar R, Guilbert T, Holguin F, Lemanske RF, Martinez FD, Morgan W, Phipatanakul W, Pongratic JA, Raissy HH, **Zeiger RS**, Mauger DT. Heterogeneity of Mild to Moderate Persistent Asthma in Children: Confirmation by Latent Class Analysis and Association with 1-Year Outcomes. *J Allergy Clin Immunol Pract*. 2020 Mar 7:S2213-2198(20)30231-2. doi: 10.1016/j.jaip.2020.02.032. Online ahead of print. PMID: 32156610
238. Murphy KR, Chipps B, Beuther DA, Wise RA, McCann W, Gilbert I, Eudicone JM, Gandhi HN, Harding G, Coyne KS, **Zeiger RS**; Development of the Asthma Impairment and Risk Questionnaire (AIRQ): A Composite Control Measure. US PRECISION Advisory Board. *J Allergy Clin Immunol Pract*. 2020 Jul-Aug;8(7):2263-2274.e5. doi: 10.1016/j.jaip.2020.02.042. Epub 2020 May 6. PMID: 32387166

239. Litonjua AA, Carey VJ, Laranjo N, Stubbs BJ, Mirzakhani H, O'Connor GT, Sandel M, Beigelman A, Bacharier LB, **Zeiger RS**, Schatz M, Hollis BW, Weiss ST. Six-Year Follow-up of a Trial of Antenatal Vitamin D for Asthma Reduction. *N Engl J Med*. 2020 Feb 6;382(6):525-533. doi: 10.1056/NEJMoa1906137. PMID: 32023372
240. **Zeiger RS**, Sullivan P, Chung Y, Kreindler JL, Zimmerman NM, Tkacz J. Systemic Corticosteroid-related Complications and Costs in Adults with Persistent Asthma. *J Allergy Clin Immunol Pract*. 2020;8(10):3455-3465. doi: 10.1016/j.jaip.2020.06.055 [Epub ahead of print].
241. Haselkorn T, Szeffler SJ, Chipps BE, Bleecker ER, Harkins MS, Paknis B, Kianifard F, Ortiz B, **Zeiger RS**. *J Allergy Clin Immunol Pract*. 2020 Jul-Aug;8(7):2243-2253. doi: 10.1016/j.jaip.2020.02.040. Epub 2020 Mar 12. PMID: 32173511
242. Lu M, Litonjua AA, O'Connor GT, **Zeiger RS**, Bacharier L, Schatz M, Carey VJ, Weiss ST, Mirzakhani H. Effect of early and late prenatal vitamin D and maternal asthma status on offspring asthma or recurrent wheeze. *J Allergy Clin Immunol*. 2020 Aug 19:S0091-6749(20)31164-7. doi: 10.1016/j.jaci.2020.06.041. Online ahead of print. PMID: 3282269
243. **Zeiger RS**, Schatz M, Hong B, et al. Patient Reported Burden of Chronic Cough in a Managed Care Organization. *JACI: In Practice*, 2021 Apr;9(4):1624-1637.e10. doi: 10.1016/j.jaip.2020.11.018. Epub 2020 Nov 20. PMID: 33227523
244. Decuyper II, Green BJ, Sussman GL, Ebo DG, Silvers WS, Pacheco K, King BS, Cohn JR, **Zeiger RS**, Zeiger JS, Naimi DR, Beezhold DH, Nayak AP. Occupational Allergies to Cannabis. *J Allergy Clin Immunol Pract*. 2020 Nov-Dec;8(10):3331-3338. doi: 10.1016/j.jaip.2020.09.003. PMID: 33161961
245. **Zeiger RS**, Xie F, Schatz M, Hong BD, Weaver JP, Bali V, Schelfhout J, Chen W. Prevalence and characteristics of chronic cough in adults identified by administrative data. *Perm J* 2020;24:20.022. DOI: <https://doi.org/10.7812/TPP/20.022>
246. Luo G, Nau CL, Crawford WW, Schatz M, **Zeiger RS**, Rozema E, Koebnick C. Developing a Predictive Model for Asthma-Related Hospital Encounters in Patients With Asthma in a Large, Integrated Health Care System: Secondary Analysis. *JMIR Med Inform*. 2020 Nov 9;8(11):e22689. doi: 10.2196/22689. PMID: 33164906.
247. Sullivan PW, Ghushchyan VH, Skoner DP, LeCocq J, Park S, **Zeiger RS**. Complications and Healthcare Resource Utilization Associated with Systemic Corticosteroids in Children and Adolescents with Persistent Asthma. *J Allergy Clin Immunol Pract*. 2021 Apr;9(4):1541-1551.e9. doi: 10.1016/j.jaip.2020.11.049. Epub 2020 Dec 5. PMID: 33290914
248. Zeiger JS, Silvers WS, Winders TA, Hart MK, **Zeiger RS**. Cannabis attitudes and patterns of use among followers of the Allergy & Asthma Network. *Ann Allergy Asthma Immunol*. 2021 Apr;126(4):401-410.e1. doi: 10.1016/j.anai.2021.01.014. Epub 2021 Jan 17. PMID: 33465453

249. Meltzer EO, **Zeiger RS**, Dicipinigaitis P, Bernstein JA, Oppenheimer JJ, Way NA, Li VW, Boggs R, Doane MJ, Urdaneta E, Weaver JP, Schelfhout J, Fonseca E. Prevalence and Burden of Chronic Cough in the United States. *J Allergy Clin Immunol Pract*. 2021 Jul 29:S2213-2198(21)00824-2. doi: 10.1016/j.jaip.2021.07.022. PMID: 34333189
250. Knihtilä HM, Stubbs BJ, Carey VJ, Laranjo N, Chu SH, Kelly RS, **Zeiger RS**, Bacharier LB, O'Connor GT, Lasky-Su J, Weiss ST, Litonjua AA. Low gestational vitamin D level and childhood asthma are related to impaired lung function in high-risk children. *J Allergy Clin Immunol*. 2021 Jul;148(1):110-119.e9. doi: 10.1016/j.jaci.2020.12.647. Epub 2021 Jan 22. PMID: 33485958
251. Izadi N, Baraghoshi D, Curran-Everett D, **Zeiger RS**, Szeffler SJ, Covar RA; Childhood Asthma Management Program Research Group. Factors Associated with Persistence of Severe Asthma from Late Adolescence to Early Adulthood. *Am J Respir Crit Care Med*. 2021 May 24. doi: 10.1164/rccm.202010-3763OC. PMID: 34029510
252. Chen YS, Mirzakhani H, Lu M, **Zeiger RS**, O'Connor GT, Sandel MT, Bacharier LB, Beigelman A, Carey VJ, Harshfield BJ, Laranjo N, Litonjua AA, Weiss ST, Lee-Sarwar KA. The Association of Prenatal Vitamin D Sufficiency With Aeroallergen Sensitization and Allergic Rhinitis in Early Childhood. *J Allergy Clin Immunol Pract*. 2021 Jun 21:S2213-2198(21)00674-7. doi: 10.1016/j.jaip.2021.06.009. PMID: 34166843
253. Luo G, Nau CL, Crawford WW, Schatz M, **Zeiger RS**, Koebnick C. Generalizability of an Automatic Explanation Method for Machine Learning Prediction Results on Asthma-Related Hospital Visits in Patients With Asthma: Quantitative Analysis. *J Med Internet Res*. 2021 Apr 15;23(4):e24153. doi: 10.2196/24153. PMID: 33856359
254. Lu M, Litonjua AA, O'Connor GT, **Zeiger RS**, et al. Effect of early and late prenatal vitamin D and maternal asthma status on offspring asthma or recurrent wheeze. *J Allergy Clin Immunol*. 2021 Apr;147(4):1234-1241.e3. doi: 10.1016/j.jaci.2020.06.041. Epub 2020 Aug 19. PMID: 32822692
255. Angel DM, Schatz M, **Zeiger RS**, Sicherer SH, Khan DA. Diversity, Equity, and Inclusion: What Can a Journal Do? *J Allergy Clin Immunol Pract*. 2021 Nov;9(11):3853-3856. doi: 10.1016/j.jaip.2021.09.019. Epub 2021 Sep 23. PMID: 34563739.
256. Sully K, Bonner N, Bradley H, von Maltzahn R, Arbuckle R, Walker-Nthenda L, Mahon A, Becker B, O'Hara L, Bevans KB, Kosinski M, **Zeiger RS**, Mackenzie R, Nelsen L. Development and equivalence of new faces for inclusion in the Childhood Asthma Control Test (C-ACT) response scale. *J Patient Rep Outcomes*. 2021 Nov 6;5(1):118. doi: 10.1186/s41687-021-00390-2. PMID: 34743264; PMCID: PMC8572277.
257. Zeiger RS, Schatz M, Zhou Y, et al. Risk Factors for Persistent Chronic Cough During Consecutive Years: A Retrospective Database Analysis. *J Allergy Clin Immunol Pract*. 2022 (in press).

Chapters, Books, and Non-Refereed Material

- 1 Kaback, M.M., **Zeiger, R.S.**, Reynolds, L.W., and Sonneborn, M.: Birth defects. *Excerpta Medica*, 248-262, 1973.
- 2 Kaback, M.M., **Zeiger, R.S.**, Reynolds, I.W., and Sonneborn, M.: A community experience in the prevention of genetic disease. *Prog. Med. Genet.* 9:104-134, 1974.
- 3 Colten, H.R., Frick, O.L., Mascia, A.V., May, C.D., Pierson, W.E., Sogn, D., Stiehm, R., and **Zeiger, R.S.**: Special problems of allergic children. N.I.A.I.D. Task Force Report. U.S. Department H.E.W. N.I.H. Publ. No. 79-387, May, 1979, pp 265-291.
- 4 Katz, S., Gigli, I., Gilliam, J., Hanifin, J., Kaplan, A., Provost, T.T., Sams, Jr., W.M., Soter, N.A., Storrs, F., and **Zeiger, R.S.**: Dermatologic Allergy, in N.I.A.I.D. Task Force Report. U.S. Department H.E.W. N.I.H. Publ. No. 79-387, May, 1979, pp 367-466.
- 5 Schatz, M. and **Zeiger, R.S.**: Chronic rhinitis: A therapeutic challenge. *Consultant*, Vol 20, May 1980, pp 61-79.
- 6 Jalowayski, A.A. and **Zeiger, R.S.**: A practical guide for the examination of nasal cytology in the diagnosis of nasal disorders. U.C.S.D. Press, San Diego, Calif., 1980. pp 1-12.
- 7 **Zeiger, R.S.** and Schatz, M.: Immunotherapy of atopic disorders: Present state of the art and future perspectives. *Medical Clinics of North America* 65:987-1012, 1981.
- 8 **Zeiger, R.S.**: Atopic Dermatitis of Childhood: Current Concepts and Management. *Immunol. Allergy Prac.* 3:198-210, 1982.
- 9 Schatz, M. and **Zeiger, R.S.**: An approach to asthma and rhinitis in pregnancy. *J Resp Dis* 3:89-99, 1982.
- 10 **Zeiger, R.S.** and Schatz, M.: Chronic Rhinitis: A practical approach to diagnosis and treatment. *Immun Allergy Practice* 4:63-78, 4:108-118, 1982.
- 11 **Zeiger, R.S.**, and Schatz, M.: ARhinitis@ in Stein, M., ed., *Internal Medicine*. Elsevier/Northern Holland, Inc. N.Y. pp 977-982, 1982, and 2nd edition, 1987.
- 12 **Zeiger, R.S.**, Jalowayski, A. and Schatz, M.: Chronic Rhinitis: Only Half a Diagnosis. *Diagnosis* 5:91-97, 1983.
- 13 Meltzer, E.O., **Zeiger, R.S.**, Schatz, M., and Jalowayski, A.A.: Chronic Rhinitis in Infants and Children: Etiologic, Diagnostic, and Therapeutic Considerations. *Ped. Clin. North Am.* 30:847-871, 1983.
- 14 **Zeiger, R.S.**: Asthma in Childhood in the *Practical Management of Asthma*. Dawson, A. & Simon R. eds. Grune and Stratton, Inc., San Diego, CA 1984 pp 167-194.
- 15 Schatz, M. and **Zeiger, R.S.**: Upper airway and asthma physiologic and clinical relationships: In Dawson A., Simon, R.A. editors. *The Practical Management of Asthma*. Grune and Stratton, Inc. San Diego, CA, 1984, pp 155-165.

- 16 **Zeiger, R.S.** and Schatz, M.: Immunologic approach to the management of asthma. *J. Asthma* 20:391-409, 1983.
- 17 **Zeiger, R.S.:** Special considerations in the approach to asthma in infancy and early childhood. *J. Asthma* 20:341-359, 1983.
- 18 Bernstein, J.M., Schatz, M., and **Zeiger, R.S.:** Immunological ear disease in adults: in *Clin. Rev. of Allergy*. 2:349-375, 1984.
- 19 **Zeiger, R.S.**, Schatz, M., and Simon, R.A.: Troleandomycin therapy in corticosteroid dependent asthma in *Bronchial Asthma: Mechanisms and Therapeutics*, 2nd edition, eds. Weiss, E.B., Segal, M.S. and Stein, M. Little Brown, Boston, 1985, pp 714-723.
- 20 Schatz, M., Porreco, R., **Zeiger, R.S.:** The management of asthma and rhinitis during pregnancy in Guilligan T (editor) *Current Therapy in Obstetrics and Gynecology*, W.B. Saunders Phil. 1983, p. 105.
- 21 **Zeiger, R.S.:** Offspring of high-risk allergic families. in *Nutrition for Special Needs in Infancy: Protein Hydrolysates*. Lifshitz, F. (ed.) Marcel Defker, Inc., N.Y. pp 239-255, 1985.
- 22 Brodie, D., Schatz, M., and **Zeiger, R.S.:** Current status of anti-rhinitis pharmacotherapy. *Ear Nose Throat J.* 65:222-226, 1986.
- 23 Schatz, M., **Zeiger, R.S.**, Falkolf, R. *Nasal Manifestations of systemic conditions*. *Immunologic & Allergy Clinics of N. Am.* 7:159-174, 1987.
- 24 **Zeiger, R.S.:** Development and Prevention of Allergic Disease in Childhood. *In Allergy: Principles and Practice*, 3rd Ed. Middleton, E. Jr., et al. (eds) 930-968, 1988.
- 25 Meltzer, E.D., Schatz, M., and **Zeiger, R.S.:** Evaluation and Therapy of Rhinitis. *In Allergy: Principles and Practice*, 3rd Ed. 1253-1290, 1988.
- 26 **Zeiger, R.S.:** Challenges in the prevention of allergic disease in infancy. *Clinical Reviews in Allergy* 5:349-373, 1987.
- 27 Schatz, M. and **Zeiger, R.S.:** *Otologic manifestations of systemic immunologic diseases in immunology of the ear*. Bernstein, J.M. and Ogra, P.L. (eds.) Raven Press. pp 481-488, 1987.
- 28 Jalowayski, A.A. and **Zeiger, R.S.:** Examination of nasal and conjunctival epithelium specimens in *Manual of Allergy and Immunology: Diagnosis and Therapy*. Lawlor, C.J. and Fischer, T.J. (eds.) 2nd Edition. Little Brown Pub. Boston, Mass 1987, pp 432-434.
- 29 Schatz, M., Hoffman, C.P., **Zeiger, R.S.**, et al: The course and management of asthma and allergic diseases during infancy. *In Allergy: Principles and Practice: 3rd Ed.* 1093-1155, 1988.
- 30 Schatz, M., **Zeiger, R.S.:** Diagnosis and management of rhinitis during pregnancy. *New England Allergy Proc.* 9:545-554, 1988.

- 31 **Zeiger, R.S.:** Allergic and Nonallergic Rhinitis. Classification and Pathogenesis. Part 1 Allergic Rhinitis. *Am. J. Rhinology* 3:21-47, 1989. Part 2 Nonallergic Rhinitis. *Am. J. Rhinology* 3:113-140, 1989.
- 32 **Zeiger, R.S.** Prevention of Food Allergy in Infancy. *Annals of Allergy* 65:430-442, 1990.
- 33 **Zeiger, R.S.** Preventing food allergy in infants. The current state of knowledge. *Advance* Oct/Nov: 3-5, 1990.
- 34 Schatz, M., **Zeiger, R.S.:** Allergic Diseases in Pregnancy: Recognition and Treatment. In Gleicher N. (Editor) *Principle of Medical Therapy in Pregnancy: 2nd Ed.* Plenum Medical Book Co., N.Y. 1991, pp 435-454.
- 35 Schatz, M., **Zeiger, R.S.:** Drug therapy in the allergic pregnant patient. *Immunology Allergy Clin. N. Am.* 11:153-171, 1991.
- 36 Schatz, M., **Zeiger, R.S.,** Settupane, G. (Editors) *Nasal manifestations of systemic diseases.* OceanSide Publications. Providence, RI. 1991.
- 37 Schatz, M. **Zeiger R.S.:** The management of asthma, rhinitis, and anaphylaxis during pregnancy. In Lee, R.V. (Editor) *Current Obstetric Medicine* Vol. 1. Year Book Medical Publishers, Chicago, Chapter 3, pp 65-97, 1991.
- 38 Sampson, H.A., Bock, S.A., **Zeiger, R.S.** Food Allergy. *American Acad of Pediatrics Update* 112(10):1-10, 1991.
- 39 Schatz, M. and **Zeiger, R.S.** Editorial: Treatment of asthma and allergic rhinitis during pregnancy. *Ann Allergy* 65:1990.
- 40 **Zeiger, R.S.** Differential diagnosis and classification of rhinosinusitis in *Nasal Manifestations of Systemic Diseases*, Schatz, M., **Zeiger, R.S.,** Settupane G.(Editors), Oceanside Publications, R.I. pp 3-33, 1991.
- 41 **Zeiger, R.S.:** Mechanisms, diagnoses, and treatments of sinusitis, current interventions in 1992: Ancillary treatments of sinusitis. *J Allergy Clin Immunol* 90:478-95, 1992.
- 42 Schatz, M. and **Zeiger, R.S.:** Allergic Diseases in Pregnancy: In Gleicher N., editor, *Medical Therapeutics in Pregnancy*, 2nd edition, East Norwalk, CT, Appleton-Lange, p 435, 1992.
- 43 Schatz, M. and **Zeiger, R.S.** (Editors): *Asthma and Allergic Disease in Pregnancy and Early Infancy* Marcel Decker, Publisher, NY, 1993.
- 44 **Zeiger, R.S.:** Development and Prevention of Allergic Disease in Childhood. *In Allergy: Principles and Practice.* 4th Ed. Middleton, E. Jr., et al (Editors), Chapter 44, pages 1137-1171, 1993.
- 45 **Zeiger, R.S.** and Szeffler, S.: Troleandomycin therapy in corticosteroid dependent asthma in *Bronchial Asthma: Mechanisms and Therapeutics*, 3rd edition, eds. Weiss, E.B., Segal, M.S. and Stein, M. Little Brown, Boston, 1993.

- 46 **Zeiger, R.S.** Prevention of Allergic Disease in Infancy: in *Asthma and Allergic Disease in Pregnancy and Early Infancy*, eds. Schatz, M. and **Zeiger, R.S.** Marcel Decker Publisher, NY, pp 535-574, 1993.
- 47 Schatz, M., Hoffman, C.P., **Zeiger, R.S.** et al.: The course and management of asthma and allergic diseases during infancy. In *Allergy: Principles and Practice*: 4th edition. eds. Middleton, E. Jr., et al. Chapter 50, pages 1301-1342, 1993.
- 48 **Zeiger, R.S.** and Schatz, M.: "Rhinitis" in Stein, M. editor, *Internal Medicine*. Elsevier/Northern Holland, Inc. N.Y., 3rd edition, 1993.
- 49 Businco, L., Dreborg, S., Einarsson, R., Giampietro, P.G., Host, A., Keller, K.M., Strobel, S., Wahn, U., Bjorksten, B., Kjellman, N.I.H., Sampson, H., **Zeiger, R.S.** Hydrolysed cow's milk formulae. Allergenicity and use for treatment and prevention. A position paper of ESPACI. *Pediatr Allergy Immunol*;4:101-111, 1993.
- 50 Schatz, M., **Zeiger, R.S.** Managing asthma and allergy during pregnancy. *J Respir Dis*: 14:1227-1243, 1993.
- 51 **Zeiger, R.S.** Dietary manipulation in infants and their mothers and the natural course of atopic disease. *Pediatric Allergy Immunol* 5 (suppl 1): 33-43, 1994.
- 52 Friedman, N.J., **Zeiger, R.S.** Risk factors and prevention of allergy. In *Allergy, Clinical Immunology, and Asthma: Management in Infants, Children, and Adults*. Bierman, W., Pearlman, D., Shapiro, G., Busse, W., editors. Saunders and Co. 1995.
- 53 Schatz, M., **Zeiger, R.S.** Asthma and allergic disorders during pregnancy. In *Allergy, Clinical Immunology, and Asthma: Management in Infants, Children, and Adults*. Bierman, W., Pearlman, D., Shapiro, G., and Busse, W., editors. Saunders and Co. 1995.
- 54 Jalowayski, A.A. and **Zeiger, R.S.**: Examination of nasal and conjunctival epithelium specimens in *Manual of Allergy and Immunology: Diagnosis and Therapy*. Lawlor, C. J. and Fiscger, T.J. (eds.) 3rd Edition. Little Brown Pub. Boston, Mass, pp 508-510, 1995.
- 55 **Zeiger, R.S.** Breast feeding and dietary avoidance. In *Intestinal Immunology and Food Allergy*. Sampson, H.A., de Weck, A., editors. Raven Press, NY, NY, pp. 203-223, 1995.
- 56 **Zeiger, R.S.**: Prevention of food allergy and atopic disease. *J Roy Soc Med* 90(suppl 30): 22-34, 1997.
- 57 Schatz, M. & **Zeiger, R.S.** Asthma and allergy in pregnancy. *Clinics in Perinatology* 24:407-432, 1997.
- 58 White G.M. and **Zeiger R.S.** Cutaneous diseases during pregnancy. In *Asthma and Immunologic Diseases in Pregnancy and Early Infancy*. Schatz, M. Zeiger, R.S, Claman, H. (Editors): 2nd Edition, in *Lung Biology in Health and Diseases Vol 110*; Marcel Decker, Publisher, NY, 1998, pp 331-366.
- 59 Schatz, M. **Zeiger, R.S.**, Claman, H. (Editors): *Asthma and Allergic Disease in Pregnancy and Early Infancy*. 2nd Edition. Marcel Decker, Publisher, NY, 1998.

- 60 **Zeiger, R.S.** and Schatz, M.: "Rhinitis" in Stein, M. editor, *Internal Medicine*. Elsevier/Northern Holland, Inc. N.Y., 5th edition, 1998, pp 1180-1185.
- 61 **Zeiger, R.S.** Prevention of allergic disease in infancy. In. *Asthma and Immunologic Diseases in Pregnancy and Early Infancy*. Schatz, M. Zeiger, R.S, Claman, H. (Editors): 2nd Edition, in Lung Biology in Health and Diseases Vol 110; Marcel Decker, Publisher, NY, 1998 pp 761-812.
- 62 Bjorksten, B., Kjellman, NIM., and **Zeiger, R.S.**: Development and Prevention of Allergic Disease in Childhood. In *Allergy: Principles and Practice*. 5th Ed. Middleton, E. Jr., et al. (Editors), Chapter 58, Mosby, St. Louis Mo. 1998; pp 816-837.
- 63 Schatz, M., Hoffman, C.P., **Zeiger, R.S.** et al.: The course and management of asthma and allergic diseases during infancy. In *Allergy: Principles and Practice*: 5th edition. eds. Middleton, E. Jr., et al. Mosby, St. Louis, 1998; pp 938-952.
- 64 **Zeiger, R. S.**: Use of elemental formulas: Hydrolysates in allergy prevention in 107th Ross Conference on Pediatric Research: Physiologic/Immunologic Responses to Dietary Nutrients: Role of Elemental and Hydrolysate Formulas in Management of the Pediatric Patient. Ross Products Division Abbott Lab Inc. Columbus, Ohio, 1998, pp108-122.
- 65 Schatz M, **Zeiger R.S.**: Managing asthma during pregnancy. *J Respir Dis* 19:731-38,/98.
- 66 **Zeiger, R.S.**: Prevention of Food Allergy in Infants and Children *Immunology and Allergy Clinics of North America* 19:619-646, 1999.
- 67 **Zeiger, R.S.**: Dietary aspects of food allergy prevention in infants and children. *J Pediatr Gastroenterol Nutrition* 30 (Suppl 1):S77-86, 2000.
- 68 **Friedman NJ, Zeiger R.S.**: Prevention and natural history of food allergy. In: *Pediatric Allergy: Principles and Practice*. Eds: Leung, D.Y.M., Sampson, H.A., Geha, R.S., Szeffler, S.J.. Mosby, St. Louis, 2003; pp. 495-509.
- 69 **Zeiger RS, Friedman NJ.** The relationship of breastfeeding to the development of atopic disorders. *Nestle Nutr Workshop Ser Pediatr Program*. 2006; 57:93-105.
- 70 Abstracts not listed after 2006.

GRANTS

- A. Government contracts/grants awarded in past/present:
- (1) Study: Nutritional Individuality and Dietary Patterns: A Prototype Allergic Disease Prevention Program

- Number: NO1-HV-92832
 Services: Dr. Zeiger PI of both contract and subcontract
 Sponsor: NICHHD
 Officers: Dr. Thorsten Fjellstedt and H. Shifrin
 Period: 9/30/79 - 10/31/81
 Personnel: 11
 Subjects: Studied/Contracted: 618/500 in period above
- (2) Study: Effect of Gestational Asthma on Pregnancy and the Infant
 Number: 5R01-AI-20426
 Services: Dr. Zeiger, Co-investigator
 Sponsor: NIAID
 Officers: Dr. Dorothy Sogn and Gary E. Thompson
 Period: 1/1/85 - 12/31/90
 Personnel: 11
 Subjects: Studied/Planned: 900/842
- (3) Study: Efficacy of Immunotherapy in Mite Allergic Asthma
 Number: NO1-AI-21987
 Services: Dr. Zeiger Co-PI for Subcontract
 Sponsor: NIAID
 Officers: Dr. Dorothy Sogn
 Period: 9/30/85 - 8/31/90
 Personnel: 9
 Subjects: Studied/Planned: 52/80
- (4) Study: Clinical Trial of Pharmacologic Prophylaxis of Anaphylactoid Reaction to Radiocontrast Media (RCM)
 Number: NO1-AI-52606
 Services: Dr. Zeiger Co-PI for subcontract
 Sponsor: NIAID
 Officers: Dr. Dorothy Sogn
 Period: 12/1/85 - 9/1/89
 Personnel: 3
 Subjects: Studied/Planned: 800/2000
- (5) Study: Biochemical Correlates of Asthma Course during Pregnancy
 Number: 1-RO1-AI-22639
 Services: Dr. Zeiger, Co-investigator
 Sponsor: NIAID
 Officers: Dr. Dorothy Sogn and Mr. Gary Thompson
 Period: 7/1/86 - 7/1/91
 Subjects: Studied/Planned: 102/120
- (6) Study: Reduction of Passive Smoking in Asthmatic Children: A Clinical Trial
 Number: 1RT509
 Services: Dr. Zeiger PI of subcontract
 Sponsor: State of California
 Officers: University of California
 Period: 1/92 - 12/93

- Subjects: Studied/Planned: 91/100 (KP major site of enrollment)
- (7) Study: Asthma and Air Pollution-Aeroallergen Interactions
 Number: 1 R29ES06214-01
 Services: Dr. Zeiger, PI of KP consortium
 Sponsor: NIEHS
 Officers: George S. Malindzak, Jr, PhD, Dorothy Williams
 Period: 12/1/92-11/30/97
 Personnel: 6
 Subjects: Studied/Planned: 41/75, still recruiting
- (8) Study: Adherence in the Childhood Asthma Management Program Trials
 Number: NIH-91-08-0
 Services: Dr. Zeiger PI of subcontract
 Sponsor: NHLBI
 Officers: Susan Czajkowski, PhD
 Period: 7/1/92-6/30/95
 Personnel: 4
 Subjects: Studied/Planned: 124/120 (Ancillary study of CAMP)
- (9) Study: Childhood Asthma Management Program
 Number: NIH N01 HR16045
 Services: Dr. Zeiger PI of contract and subcontract
 Sponsor: NHLBI
 Officers: Sydney Parker, MD, Virginia Taggart
 Period: 9/30/91 - 12/31/99
 Personnel: 20
 Subjects: Studied/Planned: 124 with 40% minority/120 with 33% minority
- (10) Study: Childhood Asthma Management Program Continuation Studies (1-3)
 Number: NIH N01 HR16045
 Services: Dr. Zeiger PI of contract and subcontract
 Sponsor: NHLBI
 Officers: Virginia Taggart
 Period: 10/1/99 - 6/30/11
 Personnel: 10
 Subjects: Studied/Planned: 112 with 33% minority
- (11) Study: Childhood Asthma Research and Education Network (CARE)
 Number: NIH 1-U12-HL64295
 Services: Dr. Zeiger PI of contract and subcontract
 Sponsor: NHLBI
 Officers: Jim Kiley, MD
 Period: 9/30/99 - 11/30/11
 Personnel: 10
 Subjects: Multiple studies over 10 years involving hundreds of patients
- (12) Study: Vitamin D Asthma Reduction Trial (VDAART)
 Number: NIH 1-U02-HL091528
 Services: Dr. Zeiger PI of subcontract

Sponsor: NHLBI
Officers: Jim Kiley, MD
Period: 3/01/09 - 02/28/19
Personnel: 10
Subjects: 300 pregnant women 10-18 weeks gestation with family history of allergies

- (13) Study: Environmental influences on Child Health Outcomes (ECHO) Program
Number: NIH 1UG3OD023268
Services: Dr. Zeiger PI of subcontract
Sponsor: NHLBI
Period: 09/01/17 - 08/31/23
Personnel: 6
Subjects: Children of 300 pregnant women 10-18 weeks gestation with family history of allergies followed through age 11

B. Non-Governmental Multi-Center Studies:

- (1) Study: Efficacy of Nebulized Drug in Young Asthmatic Children
Sponsor: Fisons Corp.
Services: Dr. Zeiger, Co-Investigator
Period: 1978 - 1979
Subjects: Studied/Planned: 24/24
Outcome: Publication, Immunol Allergy Practice 1982;4:168-72.
- (2) Study: Inhalational Drug vs Placebo in Steroid-Dependent Asthmatics
Sponsor: Upjohn Co.
Services: Dr. Zeiger, Co-Investigator
Period: 1982-83
Subjects: Studied/Planned: 22/24
Outcome: Study found drug no better than placebo
- (3) Study: ASA-Sensitive Rhinosinusitis: A Double-Blind Crossover Study of Treatment with ASA
Sponsor: Scripps Research Institute
Services: Dr. Zeiger Co-Investigator
Period: 1982-84
Subjects: Studied/Planned: 25/25
Outcome: Publication, J Allergy Clin Immunol 1984;74:72-8
- (4) Study: Oral Drug vs Placebo in Treatment of Young Asthmatics
Sponsor: Sandoz Pharmaceuticals
Services: Dr. Zeiger, Co-Investigator
Period: 3/84 - 3/85
Subjects: Studied/Planned: 30/30
Outcome: No publication
- (5) Study: Treatment of Asthma by MDI Drug vs Placebo
Sponsor: Fisons Corp.
Services: Drs. Zeiger, Co-PI

- Period: 1984
 Subject: Studied/Planned: 44/50
 Outcome: Publication: J Allergy Clin Immunol 1988;81:681-7
- (6) Study: Comparative Study of Drug vs Placebo in the Treatment of Patients with Allergic Disease
 Sponsor: Burroughs Wellcome
 Services: Dr. Zeiger, Co-Investigator
 Period: 1984
 Subjects: Studied/Planned: 60/60
 Outcome: No publication
- (7) Study: Double Blind Multicenter Group Comparative Study of the Efficacy and Safety of MDI Drug vs Placebo in the Management of Asthma
 Sponsor: Fisons Corp.
 Services: Dr. Zeiger, Co-PI
 Period: 1985
 Subject: Studied/Planned: 26/26
 Outcome: Drug used BID had borderline efficacy for symptoms and spirometry
- (8) Study: The Effects of a Nasal Spray vs Placebo on Subjects with Allergic Rhinitis: A Multi-Center Study
 Sponsor: Bristol Myers;
 Services: Dr. Zeiger, Co-Investigator
 Period: 1985
 Subjects: Studied/Planned: 60/60
 Outcome: No effect seen with active drug
- (9) Study: Double-Blind, Placebo Controlled Food Challenges
 Sponsor: Kaiser Foundation Hospitals
 Services: Dr. Zeiger, PI
 Period: 1982 - 1985
 Subjects: Studied/Planned: 34/50
 Outcome: Publication: J Allergy Clin Immunol 1988;82:986-97
- (10) Study: Development and Prevention of Allergic Disease in Infancy
 Sponsor: Kaiser Foundation Hospitals
 Services: Dr. Zeiger, PI
 Period: 1983 - 1994
 Subjects: Studied/Planned: 288/300
 Outcome: Publications: J Allergy Clin Immunol 1986;78:224-38, 1989;84:72-89
 1993;91:723-34; 1995;95:1179-90; and Pediatr Allergy Immunol 1992;3:110-27
- (11) Study: Prevention of Corticosteroid-Induced Osteoporosis
 Sponsor: Schering Labs and Kaiser Foundation Hospitals
 Services: Dr. Zeiger, Co-Investigator
 Period: 2/1/85 - 1/31/87
 Subjects: Studied/Planned: 65/90
 Outcome: Publication: Allergy Proc 1993;14:341-5

- (12) Study: Asthma Specialist vs Generalist Care for Asthma
 Sponsor: Kaiser Foundation Hospitals
 Services: Dr. Zeiger, PI
 Period: 5/1/88 - 4/30/90
 Subjects: Studied/Planned: 309/250
 Outcome: Publication: J Allergy Clin Immunol 1991;86:1160-8
- (13) Study: Ethnic, Socioeconomic and Psychosocial Predictors of Self-management and Emergency Room Use in Asthma Patients
 Sponsor: Garfield Memorial Fund
 Services: Dr. Zeiger, PI
 Period: 11/1/91-11/1/93
 Subjects: Studied/Planned: 210/225 (1/3 white, 1/3 Hispanic, 1/3 African American)
 Outcome: Data being analyzed
- (14) Study: Soy Allergy in Infants and Children with IgE-Mediated Cow's Milk Allergy
 Sponsor: Ross Labs
 Services: Dr. Zeiger, PI of KP center of multicenter study
 Period: 7/91-11/95
 Subjects: Studied/Planned: 24/25
 Outcome: Publication: J Allergy Clin Immunol
- (15) Study: Effect of Feedback to Physicians on Asthma Patients' Health Related QOL
 Sponsor: Kaiser Permanente Research Foundation
 Services: Dr. Zeiger, Co-PI
 Period: 7/1/94 -6/30/96
 Subjects: Studied/Planned: 109/109
 Outcome: Publication: J Allergy Clin Immunol 99(Part 2):S70, 1997
- (16) Study: A Multicenter Double-Blind Placebo-Controlled Trial of Oral Drug vs Inhaled Drug in Asthma
 Sponsor: ICI Pharmaceuticals
 Services: Dr. Zeiger, Co-PI
 Period: 9/93 - 9/94
 Subjects: Studied/Planned: 18/18
 Outcome: Published
- (17) Study: International Asthma Outcome Registry
 Sponsor: Medical Research International
 Services: Dr. Zeiger, PI of subcontract
 Period: 9/95 - 8/98
 Subjects: Studied/Planned: 1500/1,000
 Outcome: Published
- (18) Study: A Randomized, Open-Label Study to Assess the Health Related Cost Effectiveness of Inhaled Drug vs Inhaled Drug in Patients with Asthma
 Sponsor: BioPharm/Astra
 Services: Dr. Zeiger, Co-PI
 Period: 7/96-11/97
 Subjects: Studied/Planned: 60/50
 Outcome: Published

- (19) Study: A Phase II, Multicenter DBPC Study to Evaluate the Safety and Efficacy of Drug vs Placebo in Subjects with Moderate to Severe Allergic Asthma
 Sponsor: Genentech
 Services: Dr. Zeiger, PI
 Period: 6/96-6/97
 Subjects: Studied/Planned: 18/15
 Outcome: Annals Allergy Asthma Immunol 1998;80:80; NEJM 341:1966-73.
- (20) Study: A Phase IV, Multicenter DBPC Study to Evaluate the Safety and Efficacy of Oral Drug vs Inhaled Drug in Subjects with Mild Persistent Asthma
 Sponsor: Merck
 Services: Dr. Zeiger, PI
 Period: 4/00-1/02
 Subjects: Studied/Planned: 15/15
- (21) Study: Cost of Asthma Burden and Economic Consequences of Asthma Controller Medication Use in the Kaiser Permanente Southern California Health Plan
 Sponsor: Aventis
 Services: Dr. Zeiger, PI
 Period: 4/05-4/07
 Subjects: Administrative database study: Published JACI 2008
- (22) Study: Exhaled Nitric Oxide and Health Care Utilization Relationship in Asthmatics on Monotherapy or Combination ICS (EXURIA)
 Sponsor: Aerocrine
 Services: Dr. Zeiger, PI
 Period: 8/08-7/10
 Subjects: Planned 300 and Administrative database study. Published
- (23) Study: A Retrospective Study Masuring Asthma Guideline Changes and Subsequent Asthma Outcomes Relative to an Uncontrolled Asthma Event (MAGCUNA)
 Sponsor: Genentech
 Services: Dr. Zeiger, PI
 Period: 8/08-7/10
 Subjects: Administrative database study: Published
- (24) Study: Reduction in Uncontrolled Asthma (RIDUNA)
 Sponsor: Genentech
 Services: Dr. Zeiger, PI
 Period: 12/10-12/31/14
 Subjects: 3,000, Clinical Trial: Published
- (25) Study: Predictors of Uncontrolled Asthma (PREDUNA)
 Sponsor: MedImmune
 Services: Dr. Zeiger, PI
 Period: 10/12-12/31/17
 Subjects: Tens of thousands, Administrative database study: Published

- (26) Study: Severe Uncontrolled Asthma (SUCAS)
 Sponsor: GSK
 Services: Dr. Zeiger, PI
 Period: 1/13- 12/18
 Subjects: Tens of thousands. Administrative database study: Ongoing
- (27) Study: The Value of FENO-Assisted Step Therapy in the Management of Persistent Asthma (FASTA)
 Sponsor: Aerocrine
 Services: Dr. Zeiger, PI
 Period: 9/12-6/15
 Subjects: 1,357: Comparative Effectiveness Study: Ongoing
- (28) Study: Retrospective Administrative Chronic Cough Study
 Sponsor: MERCK, Inc
 Services: Dr. Zeiger, PI
 Period: 10/2/2017 – 06/28/2019
 Subjects: 12,000 Outcome Study: Ongoing Determine the prevalence and characteristics of chronic cough in managed care
- (29) Study: Post-Market Integrated Electronic Health Record (EMR) Based Study of Serious Allergic Reactions and Eosinophilic Esophagitis (EoE) in Marketed Use of ODACTRA in the United States (US)
 Sponsor: ALK
 Services: Dr. Zeiger, PI
 Period: 07/01/2018 - 06/30/2023
 Subjects: Outcome Study: Ongoing
- (30) Study: SABA Under-Reporting: Predictors and Outcomes in a Real-World Database
 Sponsor: TEVA
 Services: Dr. Zeiger, PI
 Period: 11/1/2018 - 12/31/2021
 Subjects: Outcome Study: Ongoing