

September 21, 2010

**CURRICULUM VITAE**  
**JACK ANGEL ELIAS, M.D.**

**HOME ADDRESS:** 64 Old Quarry Road  
Woodbridge, CT 06525

**OFFICE ADDRESS:** Waldemar Von Zedtwitz Professor of Medicine  
Professor of Immunobiology  
Chairman, Department of Internal Medicine  
Chief, Beeson Medical Service, Yale-New Haven Hospital  
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**SS NUMBER:** Available upon request

**CITIZENSHIP:** U.S.A.

**DATE OF BIRTH:** April 10, 1951

**PLACE OF BIRTH:** Fayetteville, Arkansas

**PERSONAL:** Married - Sandra Gross Elias, Esquire  
One child - Lauren Rachel, Born 12/1/87

**EDUCATION:**

July, 1969 - June, 1973 B.A., University of Pennsylvania (Summa Cum Laude)  
July, 1973 - June, 1976 M.D., University of Pennsylvania

**POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS**

July, 1976 - June, 1977 Intern in Medicine, Tufts-New England Medical Center, Boston, MA  
July, 1977 - June, 1978 Junior Assistant Resident, Internal Medicine, Tufts-New England Medical Center, Boston, MA  
July, 1978 - June, 1979 Senior Resident, Internal Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA  
July, 1979 - June, 1980 Fellowship, Allergy and Immunology, Hospital of the University of Pennsylvania, Philadelphia, PA  
July, 1980 - June, 1982 Fellowship, Cardiovascular-Pulmonary Division, Hospital of the University of Pennsylvania, Philadelphia, PA

**MILITARY SERVICE**

None.

**FACULTY APPOINTMENTS**

July, 1978 - June, 1979	Assistant Instructor in Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA
July, 1979 - June, 1982	Postdoctoral Trainee in Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA
July, 1982 - June, 1988	Assistant Professor of Medicine, Cardiovascular-Pulmonary Division, Hospital of the University of Pennsylvania, Philadelphia, PA
July, 1987 - June, 1990	Immunology Graduate Group, University of Pennsylvania, Philadelphia, Pennsylvania
July, 1988 - June, 1990	Associate Professor of Medicine, Cardiovascular-Pulmonary Division, Hospital of the University of Pennsylvania, Philadelphia, PA
July, 1989 - June, 1990	Interim Chief, Pulmonary Section, Department of Internal Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA
July, 1990 - Sept, 2006	Professor of Medicine and Chief of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
July, 1991 - Present	Member, Yale Comprehensive Cancer Center, Yale University School of Medicine
July, 2000 - Present	Waldemar Von Zedtwitz Professor of Medicine, Yale University School of Medicine
Oct, 2006 - Present	Chair, Department of Internal Medicine, Yale University School of Medicine
Oct, 2006 - Present	Chief, Beeson Medical Service, Yale-New Haven Hospital
Oct, 2006 - Present	Physician-in-Chief, Yale-New Haven Hospital
Oct, 2007 - Present	Professor of Immunobiology

**HOSPITAL AND SCHOOL OF MEDICINE ADMINISTRATIVE APPOINTMENTS**

July, 1982 - 1990	Director, Sarcoidosis and Interstitial Lung Disease Clinic, Hospital of the University of Pennsylvania, Philadelphia, PA
July, 1984 - June, 1986	Director of Outpatient Medicine, Cardiovascular-Pulmonary Division, Hospital of the University of Pennsylvania, Philadelphia, PA
July, 1990 - Sept, 2006	Director, Winchester Chest Clinic, Yale-New Haven Hospital, New Haven, CT
July, 1990 - Sept, 2006	Chief, Pulmonary and Critical Care Medicine, Yale-New Haven Hospital, New Haven, CT
July, 1991 - June, 1992	Director, Medical Intensive Care Unit, Yale-New Haven Hospital, New Haven, CT
July, 1992 - Present	Director and Founder, Yale University Asthma and Airways Disease Working Group
July, 1997 - June, 2001	Appointments and Promotions Committee, Department of Internal Medicine, Yale University
July, 2000 - June, 2003	Development Planning Committee, Department of Internal Medicine, Yale University
July, 2001 - June, 2003	Novel Programs Committee, Congress Avenue Building, Department of Internal Medicine, Yale University
July, 2001 - Oct, 2006	Internship Selection Committee, Department of Medicine, Yale School of Medicine
July, 2001 - June, 2002	General Medicine Search Committee, Department of Internal Medicine, Yale University
July, 2001 - Oct, 2006	House Staff Mentoring Program, Department of Internal Medicine, Yale University
July, 2002 - June, 2003	Representative for Full-time Faculty, Appointments and Affiliation Committee, Department of Internal Medicine, Yale University School of Medicine
July, 2002 - Present	Faculty Advisory Group for the Keck Facility, Yale University
July, 2003 - 2004	Head of Cardiology Section Chief Search Committee, Department of Internal Medicine, Yale University School of Medicine
July, 2003 - Present	Human Translational Immunology Search Committee, Department of Immunobiology, Yale University
July, 2005 - Present	Vascular Biology and Transplantation Steering Committee, Yale University School of Medicine
Oct, 2006 - Present	PET Center Steering Committee, Yale University School of Medicine
Oct, 2006 - Present	Navigant Consultants Steering Committee, Yale University School of Medicine
Oct, 2006 - Present	Dean's Advisory Planning Committee, Yale University School of Medicine
Oct, 2007 - Present	R.W. Johnson Institutional Advisory Committee, Yale University School of Medicine

Oct, 2006 - Present	Yale Medical Group Board of Governors, Yale University School of Medicine
Oct, 2006 - Present	Yale Medical Group Finance Committee, Yale University School of Medicine
Oct, 2006 - Present	Clinical Chairs Committee, Yale-New Haven Hospital
Oct, 2006 - Present	Yale Medical Group Clinical Chairs Executive Committee, Yale University School of Medicine
Oct, 2006 - Present	Clinical Chairs Operations Committee, Department of Internal Medicine-Yale-New Haven Hospital
Oct, 2006 - 2008	Committee to review the timetable for senior faculty appointments at the School of Medicine
Aug, 2007 - Present	YCCI Executive Committee, Yale Clinical and Translational Sciences Award, Yale University School of Medicine
Oct, 2007 - Present	External Scientific Liaison from Yale University to the NIH
Nov, 2007 - Present	Yale Medical Group Board of Governors Nominating Committee
Aug, 2007 - 2010	Standing Advisory and Appointments Committee, Yale School of Nursing
June, 2009 - Present	Strategic Planning Committee of the Yale Medical School Board of Governors
June, 2009 - Present	Clinical Trials Management System Steering Committee
June, 2009 - Present	Chair, Clinical Research Committee, Yale Medical Group
Aug, 2009 - Present	Medical Board Administrative Committee, Yale-New Haven Hospital
June, 2010 - Present	Strategic Planning Committee, Yale-New Haven Hospital
July, 2010 - Present	Chair, Medicine Service Line Planning, Yale-New Haven Hospital
Sept, 2010 - 2011	Medical Board Administrative Committee, Yale-New Haven Hospital

### **SPECIALTY CERTIFICATION**

1979	American Board of Internal Medicine (September 12, 1979; Certificate # 73286)
1981	Allergy and Immunology (October 21, 1981; Certificate # 2120)
1982	Pulmonary Medicine (November 9, 1982; Certificate # 73286)
1991	Critical Care Medicine (November 5, 1991; Certificate # 73286)

### **LICENSURE**

Pennsylvania  
Connecticut

### **AWARDS, HONORS AND MEMBERSHIP IN HONORARY SOCIETIES**

1973	Phi Beta Kappa
1976	Alpha Omega Alpha
1982	Edward Livingston Trudeau Scholar, American Lung Association
1983	Leonard Dalsemer Scholar, American Lung Association
1984	Edward Livingston Trudeau Scholar, American Lung Association
1986	RJR Nabisco Scholar
1987	Selected Speaker: National Heart, Lung, and Blood Institute Symposium Honoring Clinical Investigator/Physician Scientist Awardees, American Thoracic Society Meeting, New Orleans, LA
1988	Career Investigator, American Lung Association
1991	Fellow, American College of Chest Physicians
1992	American Society for Clinical Investigation
1997	Interurban Clinical Club
1998	Association of American Physicians
1998	Pfizer Visiting Professor in Allergic Diseases and Asthma, University of Iowa
2003	Recognition Award For Scientific Accomplishment, American Thoracic Society

2005	Trudeau Speaker, New York Thoracic Society Meeting, New York City, NY
2005	The Harold and Marilyn Menkes Memorial Lecture, Bloomberg School of Public Health, Johns Hopkins University School of Medicine, Baltimore, MD
2006	Sheldon C. Siegel Lectureship, State-of-the Art Session, American Academy of Allergy, Asthma and Immunology Meeting, Miami Beach, FL
2007	Twentieth Annual Lee E. Far, M.D. Lectureship, Yale University School of Medicine Student Research Day
2008 - 2009	Association of American Physicians, Councilor
2010	Association of American Physicians, Vice President
2011	Association of American Physicians, President
2009 - Present	Council of the National Heart, Lung, and Blood Institute, National Institutes of Health
2010	The Herbert Y. and Anne L. Reynolds Grand Rounds Lecturer, Penn State Milton S. Hershey Medical Center, Hershey, PA
2010	Annual Physician-in-Chief Pro Tempore, Department of Medicine Brigham and Women's Hospital, Boston, MA

## **MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES**

### **National Societies**

1982	American College of Physicians
1982	American Academy of Allergy
1983	American College of Chest Physicians
1984	American Federation for Clinical Research
1985	Reticuloendothelial Society
1985	American Association of Immunologists
1986	Federation of Societies for Experimental Biology
1988	Co-Chairperson Eastern Section Meeting - Pulmonary
American Thoracic Society / American Lung Association	
1987 - 1990	American Lung Association / American Thoracic Society Research Review Committee
1987	Program Committee: Scientific Assembly on Allergy and Clinical Immunology
1988	Secretary: Scientific Assembly on Allergy and Clinical Immunology
1989	Vice-President: Scientific Assembly on Allergy and Clinical Immunology
1990	President: Scientific Assembly on Allergy, Immunology and Inflammation
1991	Nominating Committee, Scientific Assembly on Allergy, Immunology and Inflammation
1991	Long Range Planning Committee, Scientific Assembly on Allergy, Immunology and Inflammation
1991	Program Committee
1992	Board of Directors: American Thoracic Society
1992	Board of Directors: American Lung Association
1992	American Lung Association/American Thoracic Society Task Force, Future Directions for Research on Diseases of the Lung
1994	Southern Regional Council, American Lung Association of Connecticut
1994 - 1996	Chairperson, Long Range Planning Committee, American Thoracic Society
1996	Scientific Advisory Council
1996	Asthma Advisory Committee, Scientific Assembly on Allergy, Immunology and Inflammation
2000 - 2003	Chair, Scientific Advisory Council, American Thoracic Society
2003 - 2006	Scientific Advisory Committee, American Thoracic Society
2007 - Present	Long Range Planning Task Force
2008 - Present	CT Academy of Science and Engineering
2010	American College of Physicians, Fellow

**Association of American Physicians**

1998 Selection  
 2008 Councilor  
 2011 President

**SCIENTIFIC ADVISORY BOARDS**

1998 - 1999 Environmental Health Sciences Research Center, University of Iowa, Iowa City, IA  
 1999 Invited Participant, Singulair Advisory Board, Lisbon, Portugal  
 1999 - 2001 Scientific Advisory Committee, The John B. Pierce Laboratory, Yale University School of Medicine  
 2002 Invited Participant, Scientific Advisory Board at Merck Frost, Merck Frost Respiratory Consultants Conference, Montreal, Canada  
 2002 External Scientific Advisory Board, MedImmune, Gaithersburg, MD  
 2003 External Scientific Advisory Board, Millennium Pharmaceuticals, Cambridge, MA  
 2005 External Scientific Advisory Board, CV Therapeutics, Inc., Palo Alto, CA, New York, NY  
 2006 External Scientific Advisory Board, Roche Pharmaceuticals, Palo Alto, CA  
 2007 - Present Representative for the Sandler Scientific Advisory Board, American Asthma Foundation, San Francisco, CA  
 2007 - Present International Advisory Board, Meakins Christie Institute, McGill University, Montreal, CA  
 2009 External Advisory Committee, Respiratory Biology Training Grant, University of Chicago  
 2010 International Scientific Advisory Board, The Rayne Institute in Edinburgh, The Rayne Institute Paris and Yale University School of Medicine

**LOCAL SOCIETIES**

Laennac Society  
 Pennsylvania Thoracic Society  
 Connecticut Thoracic Society  
 New Haven County Medical Association

**NATIONAL INSTITUTES OF HEALTH AND OTHER REVIEW POSITIONS**

1990 Ad hoc Reviewer, Preventive Pulmonary Academic Award, NIH / NHLBI  
 1990 Ad hoc Reviewer, Veterans Administration Merit Review  
 1990 NIH / NHLBI Research Training Review Committee  
 1990 United States-Israel Bi-national Science Foundation Review Committee  
 1990 Ad hoc Reviewer, NIH / NHLBI Training Research Review Committee, Special Review Committee (K08's)  
 1992 NIH / NHLBI Special Emphasis Panel, Clinical Investigator Development Awards  
 1992 NIH Research Review Committee, Program Project Site Visit, Johns Hopkins Asthma and Allergy Center  
 1992 Ad hoc Reviewer, NIH / NHLBI Lung Biology and Pathology Study Section  
 1993 NIH / NIAID Special Review Committee, Asthma and Allergic and Immunologic Disease Cooperative Research Centers  
 1993 - 1996 Reviewer, NIH, Lung Biology and Pathology Study Section Review Committee  
 1995 Ad Hoc Council Member, National Institute of Allergy and Infectious Diseases, National Institutes of Health  
 1997 Ad Hoc Council Member, National Institute of Allergy and Infectious Diseases Council, National Institutes of Health  
 1997 NIH / NIAID Task Force on Immunology, Asthma Section

- 1997 NIH / NHLBI Airway Biology and Disease Special Emphasis Panel  
 1998 Invited Participant, US NIH-Germany Cooperative Workshop "Early Life Origins of Asthma," Berlin, Germany  
 1998 Invited Participant, NIH / NHLBI SPARK Conference  
 1998 Invited Participant, Environmental Health Sciences Research Center External Advisory Committee, University of Iowa, College of Medicine Screening, Denver, CO  
 1999 Invited Participant, NIH / NHLBI Specialized Centers of Research and Program Project Centers in Asthma, Rockville, MD  
 1999 Invited Participant, NIH / NHLBI /Joint RFA Meeting: Origins of Asthma in Early Life and Role of Respiratory Infections in Childhood Asthma, Bethesda, MD  
 2000 Invited Participant, NIH / NIAID, Extramural Asthma and Allergy Research Program Review, Bethesda, MD  
 2000 Invited Participant, NIAID / AAAAI Workshop entitled Mouse Models of Asthma  
 2001 - 2007 Board Member and grant reviewer, Sandler Asthma Program  
 2002 Invited Participant, NIH / CSR / PUL Study Section Boundary Team  
 2002 Chairperson, NIH / NHLBI RFA Review of Molecular Mechanisms of Mucous Cell Metaplasia and Excess Mucous Secretion in Human Airway Disease  
 2002 Invited Participant, Program Project Grant External Advisory Board, University of Vermont  
 2003 Co-Chair, NHLBI, NIH Conference entitled Future Research Directions in Asthma Working Group, Rockville, MD  
 2006 Invited Participant, NIH / NHLBI Special Emphasis Panel, RFA SCCOR in COPD, Baltimore, MD  
 2006 Invited External Referee Grant Review, Asthma United Kingdom  
 2006 Invited Participant, Roche Palo Alto Scientific Advisory Board Meeting  
 2006 Invited Participant, NIH / NHLBI Strategic Planning, Division of Lung Diseases Level 1 Working Group on Theme #1: Development and Early Life Origins of Disease  
 2006 Invited Participant, NIH / NHLBI, Division of Lung Diseases Strategic Planning Working Group. Theme #2: Integrative Approaches to Pathogenetic Research on Lung Diseases and Sleep Disorders  
 2007 Invited Participant, Promedior, Inc., Tahoe City, CA, Fibrosis Scientific Advisory Board Meeting, "Mechanisms of Lung Fibrosis"  
 2008 Invited Participant, National Heart and Lung Institute, Respiratory Program, Imperial College, London  
 2008 Invited Participant, NIH / NHLBI Review, Bethesda, MD  
 2009 Invited participant, NIH / NHLBI Advisory Council  
 2009 Invited Participant and Co-Chair, NIH / NHLBI Workshop: Getting From Genes to Function in Lung Disease, NIH Campus, Bethesda, MD  
 2009 Invited Participant, NIH / NHLBI, SCCOR: Fostering Translational Research in Pulmonary and Sleep Diseases Working Group, NIH Campus  
 2009 - Present Advisory Council of the National Heart Lung and Blood Institute of the NIH  
 Nov 2010 - Member, Council of Councils of the National Institutes of Health

### **AD HOC REVIEWER**

American Journal of Respiratory and Critical Care Medicine  
 American Journal of Respiratory Cell and Molecular Biology  
 Journal of Immunology  
 Journal of Clinical Investigation  
 Annals of Internal Medicine  
 Clinical Immunology and Immunopathology  
 American Journal of Pathology  
 New England Journal of Medicine  
 Journal of Infectious Diseases

Nature Medicine  
Nature Immunology  
Science  
Journal of Experimental Medicine  
Journal of Allergy and Clinical Immunology

### **EDITORIAL BOARDS**

American Journal of Medicine  
American Journal of Physiology: Lung, Cellular and Molecular Physiology  
Journal of Laboratory and Clinical Medicine  
Laboratory Investigation  
The Journal of Allergy and Clinical Immunology Advisory Board  
American Journal of Respiratory Cell and Molecular Biology  
Respiratory Research  
Journal of Laboratory Investigation  
Encyclopedia of Respiratory Medicine  
Treatment Strategies – Respiratory

### **ASSOCIATE EDITOR**

American Journal of Respiratory Cell and Molecular Biology  
Proceedings of the American Thoracic Society

### **PRINCIPAL INVESTIGATOR OF GRANTS: PAST**

Clinical Investigator Award, National Heart, Lung, and Blood Institute, National Institutes of Health, HL-01064. 1982 - 1987, \$225,000.

Edward Livingston Trudeau Scholar, American Lung Association. 1982 - 1983.

Leonard Dalsemer Research Scholar, American Lung Association. 1983-1984.

Connective Tissue Regulation in Human Pulmonary Fibrosis, S. Jimenez, M.D., Principal Investigator, National Heart, Lung, and Blood Institute, National Institutes of Health, HL-31650. 1983-1986, \$119,278, Co-Principal Investigator.

Edward Livingston Trudeau Scholar, American Lung Association. 1984-1985.

Modulators of Pulmonary Fibrosis, National Heart, Lung, and Blood Institute, National Institutes of Health, R01-HL-36708. 1986-1989, \$303,227.

RJR Nabisco Scholar. 1986-1989, \$225,000.

Mechanisms of Cytokine Regulation of Collagen Gene Expression, National Heart, Lung, and Blood Institute, National Institutes of Health, R01-HL-41216. 1988-1993, \$536,562.

Characterize the Immune-Effector Functions of Fibroblasts, American Lung Association. 1990-1993, \$105,000 total and direct costs.

Modulators of Pulmonary Inflammation and Fibrosis, National Heart, Lung, and Blood Institute, National Institutes of Health, R01-HL-36708. 1990-1996, \$686,154 direct costs, \$1,135,824 total costs.

Retinoic Acid Regulation of Fibroblast IL-6, Veterans Administration Merit Review. 1993-1996, \$291,300.

Eosinophil Stimulated Stromal Cell Cytokines in Asthma, National Institutes of Health, R01-AI-34953. 1994-1998, \$759,333 direct costs, \$1,165,735 total costs.

Transgenic Modeling of Airway Inflammation in Asthma, Veterans Administration Merit Review. 1995-2000, \$526,000 direct and total costs.

Transgenic Modeling of Airway Inflammation in Asthma, National Heart, Lung, and Blood Institute, National Institutes of Health, R01-HL-54989. 1995-1999, \$739,696 direct costs, \$1,190,212 total costs.

IL-11 in Viral Asthma, National Heart, Lung, and Blood Institute, National Institutes of Health, RO1-HL-36708. 1995-2000, \$390,805 direct costs. \$631,776 total costs.

Specialized Center of Research: Cell and Molecular Biology of Asthma, T Lymphocytes and Cytokines in Asthma, National Heart, Lung, and Blood Institute, National Institutes of Health, P50-HL-56389. 1996-2002, \$5,718,933 direct costs and \$9,365,062 total costs.

Transgenic Modeling of Th1/Th2 Responses in Asthma, National Heart, Lung, and Blood Institute, National Institutes of Health, R01-HL-61904. 1998-2002, \$900,000 direct costs, \$1,471,500 total costs.

Transgenic Investigations of Airway Remodeling, National Heart, Lung, and Blood Institute, National Institutes of Health, R01-HL-64242. 1999-2003, \$900,000 direct costs, \$1,471,500 total costs.

Transgenic Modeling of Chronic Obstructive Pulmonary Disease, National Heart, Lung, and Blood Institute, National Institutes of Health, R01-HL-66571. 2000-2004, \$1,250,000 direct costs, \$2,043,750 total costs.

Innate Mechanisms in Non-Infectious Lung, National Institute of Allergy and Infectious Diseases, National Institutes of Health, R01-AI-052201. 2002-2007, \$250,000 direct costs, \$1,250,000 total costs.

5-P01-HL-056389-10 (Elias), Initiation and Effector Mechanisms in Lung Th2 Immunity, National Heart, Lung and Blood Institute, National Institutes of Health, 1996 - 2007, direct costs \$1,418,447, total costs \$6,922,843.

5-R01-HL-064242-07 (Elias), Transgenic Modeling of TGF- $\beta$  in the Lung, National Heart, Lung and Blood Institute, National Institutes of Health, 1999 - 2008, direct costs \$250,000, total costs \$1,000,000.

1-R01-HL-079328 (Elias), Protease/Cathepsin-Mediated Apoptosis in COPD, National Heart, Lung and Blood Institute, National Institutes of Health, 2005 - 2009, direct costs \$250,000, total costs \$1,250,000.

5-R01-HL-078744 (Elias), VEGF in Th2 Inflammation and Asthma, National Heart, Lung and Blood Institute, National Institutes of Health, 08/23/04 - 07/31/09, direct costs \$250,000, total costs \$1,250,000.

1-R01-HL-081639 (Elias), AMCase and BRP-39 in Th2 Inflammation and Asthma, National Heart, Lung and Blood Institute, National Institutes of Health, 09/29/05 - 07/31/09, direct costs \$250,000, total costs \$1,250,000.

#### **PRINCIPAL INVESTIGATOR OF GRANTS: PRESENT**

2-R01-HL-079328-05 (Elias), Cigarette Smoke, RIG-like Helicases and Alveolar Remodeling, National Heart, Lung and Blood Institute, National Institutes of Health, 08/01/09 – 07/31/15, direct costs 250,000, total costs \$1,250,000.

T-32-HL-007778-15 (Elias), Training in Respiratory Biology and Pathobiology, National Heart, Lung and Blood Institute, National Institutes of Health, 07/01/10 – 06/30/15, direct costs \$542,052, total costs \$2,899,680.



Cigarette Smoke and Rig-like Helicase Innate Immunity, Flight Attendants Medical Research Institute (FAMRI), 07/01/09 - 06/30/12, direct costs \$250,000, total costs \$1,250,000.

R01-HL-093017 (Elias), BRP-39/YKL-40 in Th2 Inflammation and Asthma, National Heart, Lung and Blood Institute, National Institutes of Health, 01/18/10 – 12/31/13, direct costs \$250,000, total costs \$1,250,000

### **CO-PRINCIPAL INVESTIGATOR OF GRANTS: PRESENT**

R01-HL-084225, Genetic Factors Controlling Effector Function of TGF- $\beta$  in COPD and Fibrosis, C. Lee, M.D., Principal Investigator, National Heart, Lung and Blood Institute, National Institutes of Health, 12/01/06 - 11/31/11, direct costs \$250,000, total costs \$1,250,000.

### **PRINCIPAL INVESTIGATOR OF INDUSTRIAL GRANTS: PAST**

IL-13 in COPD, Genetics Institute. 2000-2002, \$200,822 direct costs, \$323,899 total costs.

Generation of CC10-OAF065 Overexpression Transgenic Mice, Genetics Institute. 2000-2002, \$92,670 direct costs, \$148,669 total costs.

Study of Interleukin-13 (IL-13) Mouse Model and its Pathway in the Development of Asthma, Millennium Pharmaceuticals. 2001-2002, \$275,000 direct costs, \$449,625 total costs.

Research Agreement With Aventis, Aventis Pharmaceuticals, Bridgewater, NJ. 2001-2003, \$611,620 direct costs, \$1,000,000 total costs.

Pathogenesis of the COPD-Like Lesions in Gamma Interferon Transgenic Mice, GlaxoSmithKline. 2002, \$49,107 direct costs, \$55,000 total costs.

Study Examining Pathogenesis of Asthma and Molecular Mechanisms of Lung Injury and Airway Remodeling, Yamanouchi USA Foundation. 2002, \$26,786 direct costs, \$30,000 total costs.

Chitinases in Lung Disease, MedImmune, Inc., 2004 - 2006 total costs \$500,000.  
NF- $\kappa$ B in Asthma, and COPD, Millennium, Inc., 2004 - 2006 total costs \$250,000.

Philip Morris, Influence of Lung Inflammation on Th2 Priming, Kim Bottomly PhD. Principal Investigator, 08/01/05 - 07/31/07, direct costs \$189,889, total costs \$391,016.

Zenyth, Role of IL-11 in Asthma, 09/01/05 - 03/01/08, total costs \$247,612.

### **PATENTS ISSUED**

<b><u>Docket Number</u></b>	<b><u>Title</u></b>	<b><u>Date Filed</u></b>	<b><u>Date Issued</u></b>	<b><u>Country</u></b>
OCR 1181US01	Methods, Compositions and Kits Relating to Chitinase and Chitinase-Like Molecules and Inflammatory Disease	7/23/02	5/8/07	United States
OCR 1181AU00	Methods, Compositions and Kits Relating to Chitinase and Chitinase-Like Molecules and Inflammatory Disease	7/23/02	9/8/08	Australia

**PATENTS PENDING**

<b><u>Docket Number</u></b>	<b><u>Title</u></b>	<b><u>Date Filed</u></b>	<b><u>Application Number</u></b>	<b><u>Country</u></b>
OCR 00001181CA00	Methods, Compositions and Kits Relating to Chitinase and Chitinase-Like Molecules and Inflammatory Disease	1/19/04	2,454,342	Canada
OCR 00001181JP00	Methods, Compositions and Kits Relating to Chitinase and Chitinase-Like Molecules and Inflammatory Disease	1/21/04	3515201	Japan
OCR 00001181IL00	Methods, Compositions and Kits Relating to Chitinase and Chitinase-Like Molecules and Inflammatory Disease	1/22/04	160000	Israel
OCR 00001181EP00	Methods, Compositions and Kits Relating to Chitinase and Chitinase-Like Molecules and Inflammatory Disease	2/23/04	2750284.8	European Union
OCR 00001581US03	Methods and Compositions Relating to Vascular Endothelial Growth Factor and TH2 Mediated Inflammatory Diseases	7/16/06	10/586,254	United States
OCR 00001617US01	Methods and Compositions Relating to CCR5 Antagonist, IFN- $\gamma$ and IL-13-Induced Inflammation	9/20/07	10/582,610	United States
OCR 00004473EP00	C/CLP Antagonists and Methods of Use Thereof	3/27/08	6802602	European Union
OCR 00001181US04	Methods, Compositions, and Kits relating to Chitinase and Chitinase-like Molecules and Inflammatory Disease	7/18/08	12/218,840	United States
OCR 00001181US05	Methods, Compositions, and Kits relating to Chitinase and Chitinase-like Molecules and Inflammatory Disease	7/18/08	12/218,836	United States
OCR 00005092US01	Treatment and prophylaxis of TH2 mediated disorders	10/23/08	12/256,883	United States
OCR 00001181US07	Methods, Compositions, and Kits relating to Chitinase and Chitinase-like Molecules and Inflammatory Disease	11/21/08	12/275,737	United States
OCR 00004473US01	C/CLP Antagonists and Methods of Use Thereof	1/9/09	12/351,145	United States

<u>Docket Number</u>	<u>Title</u>	<u>Date Filed</u>	<u>Application Number</u>	<u>Country</u>
OCR 00004445US01	Semaphorin 7a Plays a Critical Role in TGF-Beta1-induced Pulmonary Fibrosis and Alveolar Destruction	2/18/09	12/377,940	United States
OCR 00004129US01	Toll-Like Receptors Agonist Regulation of VEGF-induced Tissue Responses	4/15/09	12/445,692	United States
OCR 00004445US02	Semaphorin 7a Plays a Critical Role in TGF-Beta1-induced Pulmonary Fibrosis and Alveolar Destruction	10/29/09	12/604,192	United States
OCR 00004715US01	IL 18 and Protein Kinase R Inhibition for the Treatment of COPD	11/24/09	12/601,778	United States
OCR 00004715EP00	IL 18 and Protein Kinase R Inhibition for the Treatment of COPD	12/24/09	8767942.9	European Union
OCR 00004715CA00	IL 18 and Protein Kinase R Inhibition for the Treatment of COPD	12/24/09	2,691,039	Canada
OCR 00004715AU00	IL 18 and Protein Kinase R Inhibition for the Treatment of COPD	12/24/09	2008260572	Australia
OCR 00004794US01	MicroRNA Compositions in the Treatment of VEGF-Mediated Disorders	3/28/10	12/677,625	United States
OCR 00004826US01	Variation in the CHI3L1 Gene Influences Serum YKL-40 Levels, Asthma Risk, and Lung Function	5/28/10	12/744,987	United States
OCR 00005115US00	The use of recombinant human YKL-40 to treat oxidant-mediated lung injury and apoptosis.	6/16/10	61/397,766	United States
OCR 00005475US00	Human Validation of Chitinase-3-like Protein 1 as a Biomarker of Recovery From Kidney Injury	7/12/10	61/363,413	United States
OCR 00001181US08	Methods, Compositions, and Kits relating to Chitinase and Chitinase-like Molecules and Inflammatory Disease	7/12/10	12/834,650	United States
OCR 00005476US00	The interactions of BRP-39/YKL-40 and IL-13Ra2 and the roles of IL-13Ra2 in the pathogenesis of the biologic effects of BRP-39/YKL-40	7/14/10	61/399,549	United States
OCR 00005503US00	BRP-39/YKL-40 in the regulation of fat accumulation	8/17/10	61/374,362	United States

**GENETIC SEQUENCES**

Mouse chitotriosidase- GenBank™, accession number AY458654.  
 Mouse Muc 4- GenBank™ accession number AF218819.

**MAJOR TEACHING AND CLINICAL RESPONSIBILITIES**

1. Attending Physician, Pulmonary Consultation Service, Yale-New Haven Hospital and West Haven Veterans Administration Hospital.
2. Attending Physician, Medical Intensive Care Unit, Yale-New Haven Hospital.
3. Director, Interstitial and Occupational Lung Disease Program, Yale University School of Medicine, 1990-1992.
4. Director, Medical Intensive Care Unit, Yale-New Haven Hospital, 1991-1992.

**THESIS COMMITTEES**

1. Erica Herzog, Postdoctoral Fellow, Pulmonary and Critical Care Medicine, PhD conferred 2005
2. Karin Provost, Postdoctoral Fellow, Pulmonary and Critical Care Medicine, candidate for Ph.D. in Experimental Medicine
3. Paulette Wright, Graduate student, Ph.D. candidate in Pharmacology
4. Rachel Wattier, candidate for M.D./M.H.S.
5. Heather McGee, Graduate student, M.D. / Ph.D. candidate in Immunobiology
6. Rachel Rosentstein, M.D. / Ph.D. candidate in Immunobiology

**PAST AND PRESENT RESEARCH TRAINEES**

<b><u>Name</u></b>	<b><u>Dates</u></b>	<b><u>Current Position</u></b>
Jon Leff, MD	1984 -1985	Vice President and Chief Medical Officer, Halozyme Therapeutics, Inc, San Diego, CA
Thomas J. Ferro, MD	1984 -1986	Professor of Internal Medicine and Physiology, Department of Internal Medicine, Medical College of Virginia, Richmond, VA
Ronald Krol, MD	1985 -1986	Private practice, Pulmonary Medicine, Reading, PA
James Beck, MD	1987 -1988	Associate Professor, University of Michigan, Ann Arbor, MI
Robert Kotloff, MD	1988 - 1990	Craig and Elaine Dobbin/Nancy P. Blumenthal Professor of Medicine, Chief Section of Advanced Lung Diseases and Lung Transplantation, Section of Pulmonary and Critical Care Medicine, University of Pennsylvania School of Medicine, Philadelphia, PA
Horace DeLisser, MD	1989 – 1990	Associate Professor, Hospital of the University of Pennsylvania, Philadelphia, PA
Ralph J. Zitnik, MD	1990 - 1994	Vice President, Development, Nuvelo, Inc., Santa Barbara, CA
Carolyn Rochester, MD	1991 - 1994	Associate Professor, Section of Pulmonary and Critical Care Medicine Yale University School of Medicine

<u>Name</u>	<u>Dates</u>	<u>Current Position</u>
Oskar Einarsson, MD	1991 - 1994	Pulmonary Division, University of Reykjavik, Iceland
Terence Trow, MD	1991 - 1993	Assistant Professor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Zhou Zhu, MD, PhD	1993 - 1995	Associate Professor, Johns Hopkins University, Baltimore, MD
Robert Nolfo, MD	1994 - 1995	Private Practice, Guilford Pediatrics, Guilford, CT
Robert Schilz, DO, PhD	1994 - 1996	Associate Professor, Case-Western Reserve University, Cleveland, OH
Jingming Wang, PhD	1995 - 1999	Research Scientist, Roche, Inc., Palo Alto, CA
Shawn X. Leng, MD, PhD	1995 - 1997	Assistant Professor, Geriatrics, Johns Hopkins University, Baltimore, MD
Weilang Tang	1995 - 1997	Ph.D. University of Washington, Seattle, WA Senior Scientist, CellCyte Genetics Inc
Carolyn D'Ambrosio, MD	1995 - 1998	Assistant Professor of Medicine, Associate Program Director, Sleep Medicine, Tufts-New England Medical Center, Boston, MA
Lauren Cohn, MD	1995 - 1997	Associate Professor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine
Aaron Waxman, MD, PhD	1996 - 1999	Assistant Professor, Brigham Hospital, Harvard Medical School, Boston MA
Ho Joo Yoon, MD, PhD	1996 - 1999	Associate Professor, Hanyang University Hospital, Seoul, Korea
Lielie Hong, MD, PhD	1997 - 1999	Attending Allergist, Immunologist and Pediatrician, New York University Downtown Hospital, New York, NY
Nicholas Ward, MD	1997 - 1999	Associate Professor of Medicine, Brown University, Providence, RI
Zhongde Wang, PhD	1998 - 2000	Research Scientist, Department of Virology, Beckman Research Institute of the City of Hope, Temple City, CA
John McArdle, MD	1998 - 2001	Associate Professor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Bing Ma, MD	1998 - 2001	Associate Research Scientist, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Margaret Pisani, MD	1998 - 2002	Assistant Professor of Medicine and Fellowship Director, Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT

<u>Name</u>	<u>Dates</u>	<u>Current Position</u>
Jonathan Corne, MB, BS, MRCP	1999 - 2000	Queens Medical Centre, Nottingham, United Kingdom
Sophie Lanone, PhD	2000 - 2002	INSERM U408, Faculte de Medecine Xavier Bichat, Paris, France
Chun Geun Lee, MD, PhD	2000 - 2002	Associate Professor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Alfin Vicencio, MD	2000 - 2002	Assistant Professor, Department of Pediatrics (Respiratory and Sleep Medicine), Albert Einstein College of Medicine, Bronx, NY
Holger Link, MD	2000 - 2002	Assistant Professor, Department of Pediatrics, University of Oregon, Portland, OR
Klar H. Yaggi, MD, MPH	2000 - 2003	Assistant Professor and Associate Director, Pulmonary and Critical Care Medicine Fellowship Program, Yale University School of Medicine, New Haven, CT
Smita Desai, DO	2001 - 2003	Associate Professor, Section of Pulmonary and Critical Care Medicine, University of California, San Diego, CA
Gulshan Sharma, MD	2001 - 2004	Associate Professor of Medicine and Fellowship Director, University of Texas, Galveston, TX
Erica Herzog, MD, PhD	2001 - 2004	Assistant Professor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Morgan Rabach, MD	2002 - 2003	Primary Care Resident, Yale-New Haven Hospital, New Haven, CT
Yun Shim (Mike), MD, PhD	2002 - 2004	Assistant Professor, University of Virginia, Charlottesville, VA
Lesley Rabach, MD	2002 - 2004	Resident in Surgery, Yale-New Haven Hospital, New Haven, CT
Karin Provost, DO, PhD	2002 - 2005	Assistant Professor of Medicine, State University New York, Buffalo, NY
Peter Marshall, MD, MPH	2002 - 2005	Assistant Professor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Svetlana Chapoval, MD, PhD	2002 - 2005	Assistant Professor, University of Maryland, Baltimore, MD
Vineet Bhandari, MD, DM	2001 - 2003	Associate Professor of Pediatrics, Neonatology Section, Yale University School of Medicine, New Haven, CT
Kristina Crothers, MD	2003 - 2006	Assistant Professor, Pulmonary and Critical Care Medicine, University of California, San Francisco, CA

<u>Name</u>	<u>Dates</u>	<u>Current Position</u>
Jonathan Siner, MD	2003 - 2006	Assistant Professor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Soo Jun Cho, MD	2003 - 2006	Postdoctoral Fellow, New York University, New York, NY
Carla Da Silva PhD	2006 - 2009	Research Scientist, Astra Zeneca, Lund, Sweden
Masashi Yamasaki, PhD	2004 - 2005	Associate Research Head, Division of Pharmaceutical Research, Takeda Pharmaceutical Company, Osaka, Japan
Hye-Ryun, Kang	2004 - 2006	Seoul National University Hospital, Seoul, Korea
Ryan Pavlovich, MD, PhD	2004 - 2006	Clinical Instructor, New York University Hospital, Pulmonary and Critical Care, New York, NY
Michael Nead, MD, PhD	2003 - 2006	Associate Professor, University of Rochester Medical Center, Rochester, NY
Jennifer Possick, MD	2005 - 2008	Academic Hospitalist Yale New Haven Hospital, New Haven, CT
Charles Dela Cruz, MD, PhD	2005 - 2009	Assistant Professor in Medicine, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Bianca Montiero, MD	2005 - 2006	Hospitalist, Yale-New Haven Hospital, New Haven, CT
Dominik Hartl, MD	2007 - 2009	Assistant Professor, Children's Hospital, University of Munich, Munich, Germany
Barbara Koller, MD	2007 - 2009	Children's Hospital, University of Munich, Germany
Seyedtaghi Takyar, MD, PhD	2007 - Present	Instructor, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Farida Ahangari, MD	2007 - Present	Postdoctoral Associate, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Heather McGee	2007 - Present	MD/PhD student, Immunobiology, Yale University School of Medicine, New Haven, CT
Yang Zhou PhD	2010 - Present	Postdoctoral Associate, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT
Stephen Rosenberg	2010 - Present	Postdoctoral Fellow, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT

**LECTURES BY INVITATION**

- December 11, 1981, University of Iowa, Iowa City, IA, "Mononuclear Cell Modulation of Lung Fibroblast Growth."
- December 18, 1981, University of Michigan, Ann Arbor, MI, "Mononuclear Cell Modulation of Lung Fibroblast Growth in Normals and Patients With Sarcoidosis."
- July 2, 1984, Barnes Hospital, St. Louis, MO, "Mononuclear Cell-Fibroblast Interactions in the Human Lung."
- July 25, 1984, Pulmonary Biology Gordon Research Conference, Plymouth State College, Plymouth, NH, Poster Presentation, "Lung Mononuclear Cell Inhibition of Lung Fibroblast Growth."
- March 22, 1985, University of Nebraska Medical Center, Omaha, NE, "Mononuclear Phagocyte Inhibition of Lung Fibroblast Growth: Relationship to Interleukin-1."
- April, 15, 1985, Participant, FASEB Meeting, Anaheim, CA, Symposium on "The Role of the Lung Macrophage in Host Defenses and the Lungs' Injury and Repair Process."
- October 28, 1985, Immunologic and Interstitial Lung Disease Postgraduate Course sponsored by the American College of Chest Physicians, New Orleans, LA, "Systemic Sarcoidosis: State of the Art."
- March 2-4, 1987, Visiting Professor, University of Colorado, Boulder, CO, "Mononuclear Cell and Recombinant Cytokine Regulation of Fibroblast Growth and Glycosaminoglycan Production."
- May 10, 1987, Chairperson, Scientific Session, Annual Meeting of the American Thoracic Society, New Orleans, LA, "Regulation of Fibroblast Function."
- May 25-27, 1987, Visiting Professor, University of Michigan, Ann Arbor, MI, "Mononuclear Modulation of the Pulmonary Fibrotic Response."
- October 5, 1987, Visiting Professor, Pulmonary Division, University of Tennessee, Memphis, TN, "Mononuclear Cell Regulation of the Pulmonary Fibrotic Response."
- October 19, 1987, Visiting Professor, Pulmonary Division and Pathology Division, McMaster University, Hamilton, Ontario, Canada, "Sarcoidosis State of the Art" and "Mononuclear Cell Regulation of Pulmonary Fibrosis."
- January 12, 1988, Visiting Professor, Pulmonary Section, College of Physicians and Surgeons, Columbia University, New York, NY, "Mononuclear Cell-Fibroblast Interactions in the Human Lung."
- February 10, 1988, Visiting Professor, Pulmonary Division, Yale-New Haven Hospital, New Haven, CT, "Mononuclear Cell Regulation of Fibroblast Function."
- May 7, 1988, Director, Postgraduate Course, Annual Meeting of the American Thoracic Society, Las Vegas, NV, "Molecular Biology in the Investigation of Pulmonary Disease."
- May 9, 1988, Participant, Symposium on the "Interaction of Inflammation and Matrix in the Lung," Annual Meeting of the American Thoracic Society, Las Vegas, NV, "Inflammatory Cell Regulation of Mesenchymal Cell Function."
- February 26-28, 1989, Visiting Professor, University of Southern California, Los Angeles, CA, "Mononuclear Cell-Fibroblast Interactions in the Human Lung."
- May 13, 1989, Director, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, Cincinnati, OH, "Molecular Biology and the Investigation of Pulmonary Disease."



May 14, 1989, Chairperson and Speaker presented at the Annual Meeting of the American Thoracic Society, Cincinnati, OH, Symposium entitled "Cytokines and Cytokine Networks in the Lung."

May 14, 1989, Chairperson, Immunology Session presented at the Annual Meeting of the American Thoracic Society, Cincinnati, OH.

July, 8, 1989, Visiting Professor, Section of Pulmonary and Critical Care Medicine, Yale-New Haven Hospital, New Haven, CT, "Cytokines in Lung Granulomagenesis."

July 25, 1989, Visiting Professor, Pulmonary Division, Stanford University Medical Center, Palo Alto, CA, "Cytokines in Lung Granulomagenesis."

March 26-27, 1990, Invited Participant, National Heart, Lung and Blood Institute Workshop, Bethesda, MD, "Intervention in Idiopathic Pulmonary Fibrosis."

March 28, 1990, Grand Rounds, Hospital of the University of Pennsylvania, Philadelphia, PA, "Systemic Sarcoidosis."

May 17, 1990, Invited Panelist, Meeting of the International Society for Aerosols in Medicine, Rochester, NY, Symposium on "Particle-Lung Interactions."

May 20, 1990, Director, Postgraduate Course, "Molecular Biology and the Investigation of Pulmonary Disease," World Conference on Lung Health, Boston, MA.

May 21, 1990, Chairperson, Immunology Session entitled "Pulmonary Fibrosis," World Conference on Lung Health, Boston, MA.

May 21, 1990, Chairperson, Symposium entitled "Cytokine Networks in the Lung," World Conference on Lung Health, Boston, MA.

May 22, 1990, Speaker, Symposium entitled "The Fibroblast as an Immune Effector Cell," World Conference on Lung Health, Boston, MA,

August 24, 1990, Grand Rounds, Greenwich Hospital, Greenwich, CT, "Systemic Sarcoidosis."

December 4, 1990, Grand Rounds, Lawrence and Memorial Hospital, New London, CT, "Systemic Sarcoidosis."

January 11, 1991, Grand Rounds, Waterbury Hospital, Waterbury, CT, "Systemic Sarcoidosis."

January 15, 1991, Invited Speaker, Research Seminar, Boehringer-Ingelheim, Inc., Ridgefield, CT, "Fibroblast Immune Effector Function."

January 24, 1991, Grand Rounds, Norwalk Hospital, Norwalk, CT, "Systemic Sarcoidosis."

January 29, 1991, Grand Rounds, Van Etten Hospital, New York, NY, "Systemic Sarcoidosis."

January 29, 1991, Pulmonary Grand Rounds, Memorial Sloan-Kettering Medical Center, New York, NY, "Cytokine Networks in the Lung."

January 31, 1991, Grand Rounds, St. Vincent's Hospital, Bridgeport, CT, "Systemic Sarcoidosis."

February 25, 1991, Invited Speaker, University of Chicago, Chicago, IL, Advanced Pathophysiology Seminar Series: "Cytokine Networking in the Lung."

March 7, 1991, Medical Grand Rounds, Yale-New Haven Hospital, New Haven, CT, "Systemic Sarcoidosis: A Prototype of Cytokine Networking."

March 13, 1991, Invited Speaker, Research Seminar, Pfizer, Inc., Groton, CT, "Cytokine Networks in the Lung."

May 15, 1991, Chairperson of Session presented at the Annual Meeting of the American Thoracic Society, Anaheim, CA, "Interleukin-6 in the Lung."

June 5, 1991, Grand Rounds, Graduate Hospital, Philadelphia, PA, "Systemic Sarcoidosis."

June 10, 1991, Invited Speaker, Research Seminar, Ciba-Geigy, Inc., Summit, NJ, "Cytokine Networks Regulating IL-6 in Human Lung."

June 12, 1991, Invited Speaker, Research Seminar, Section of Pulmonary and Critical Care Medicine, New York Medical College, Westchester, NY, "Cytokine-Cytokine Interactions in the Lung."

September 25, 1991, Invited Speaker, Fourth International Conference on Environmental Lung Diseases, Montreal, Quebec, Canada, "Inflammatory Cytokines in Pulmonary Disorders."

October 28, 1991, Invited Speaker, Research Seminar, Department of Medicine Research Series, University of Alabama, Birmingham, AL, "Cytokine Networking in the Lung."

November 20, 1991, Keynote Speaker, Annual Meeting and Scientific Session, Connecticut Thoracic Society, Trumbull-Marriott, Trumbull, CT, "Clinical and Therapeutic Implications of Cytokines and Cytokine Networks in the Lung."

January 22, 1992, Keynote Speaker, Annual Meeting of the Rhode Island Thoracic Society, Providence, RI, "Cytokines in Airway and Interstitial Lung Disease."

January 22, 1992, Pulmonary Grand Rounds, Brown University, Providence, RI, "Cytokines and Pulmonary Granulomagenesis."

February 18, 1992, Medical House Staff Conference, Yale-New Haven Hospital, New Haven, CT, "Sarcoidosis."

March 18, 1992, House Staff Conference, Hospital of Saint Raphael, New Haven, CT, "Systemic Sarcoidosis."

April 6, 1992, Invited Speaker, FASEB Annual Meeting, Anaheim, CA, "Immune Regulatory Cytokines Derived From Fibroblasts."

April 7, 1992, Invited Speaker, FASEB Annual Meeting, Anaheim, CA, "Pulmonary Cytokine Networking."

May 16, 1992, Director, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, Miami Beach, FL, "Cytokine and Cytokine Receptor Biology Update and Applications."

May 19, 1992, Chairperson of Session presented at the Annual Meeting of the American Thoracic Society, Miami Beach, FL, "Mechanisms of Inflammation and Immune Reactions."

June 26, 1992, Grand Rounds, St. Mary's Hospital, Waterbury, CT, "Systemic Sarcoidosis."

September 8, 1992, Invited Speaker, Genetics Institute, Cambridge, MA, "Interleukin-11 in the Context of Lung Fibroblast Immune Effector Function and Pulmonary Cytokine Networking."

September 16, 1992, Invited Speaker, National Institutes of Health, National Heart, Lung, and Blood Institute Workshop on Adhesion Molecules and the Lung, Bethesda, MD, "CD-44 in the Lung."

September 22, 1992, Co-Chairperson of Session, Seventh International Colloquium on Pulmonary Fibrosis, Trinity College, Cambridge, England, "Growth Factors and Cytokines."

October 8, 1992, Pathology Grand Rounds, Yale University School of Medicine, New Haven, CT, "Clinical Implications of Cytokines and Cytokine Networking in the Lung."

October 25, 1992, Invited Speaker, American College of Chest Physicians Postgraduate Literature Review Course, Hyatt Regency, Chicago, IL, "Pulmonary Cytokines: Basic Networking and Clinical Relevance."

October 27, 1992, Invited Speaker, American College of Chest Physicians Sunrise Symposium, Hyatt Regency, Chicago, IL, "Overview of Cytokines."

March 16, 1993, Yale-New Haven Hospital Medical House Staff, New Haven, CT, "Sarcoidosis."

April 2, 1993, Grand Rounds, Memorial Sloan-Kettering Cancer Center, New York, NY, "Clinical Implications on Pulmonary Cytokine Networking."

May 1, 1993, Chairperson and Organizer, Session presented at the Annual Meeting of the American Federation for Clinical Research, Washington, D.C., "Molecular Biology for the Non-Molecular Biologist."

May 4, 1993, Grand Rounds, Hospital of Saint Raphael, New Haven, CT, "Clinical Implications of Pulmonary Cytokine Networking."

May 15, 1993, Invited Speaker, Postgraduate Course, "Laboratory Techniques in Pulmonary Immunology," presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Untangling Cytokine Networks: An Overview of Methods of Detection of Cytokine Expression."

May 16, 1993, Chairperson, Session presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Cytokines and Epithelial Cells in the Lung."

May 17, 1993, Chairperson, Session presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Gene Regulation in Airway Epithelium."

May 17, 1993, Chairperson, Session presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Pathogenesis of Interstitial Lung Disease."

May 18, 1993, Chairperson, Session presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Transforming Growth Factor-Beta and Other Cytokines in Interstitial Lung Diseases."

May 27, 1993, Grand Rounds, Bridgeport Hospital, Bridgeport, CT, "Systemic Sarcoidosis."

June 17, 1993, Invited Speaker, Fourth International Conference on Bronchoalveolar Lavage, Umeå, Sweden, "Cytokines in Chronic Inflammatory Pulmonary Disorders."

July 8, 1993, Grand Rounds, The Medical Center of Delaware, Newark, Delaware, "Sarcoidosis."

August 13, 1993, Invited Speaker, The Proctor and Gamble Company, Cincinnati, OH, "IL-6 Type Cytokines in the Lung."

September 23, 1993, Invited Speaker, Yale-New Haven House Staff, New Haven, CT, "Workshop in Ambulatory Medicine."

October 5, 1993, Invited Speaker, Graduate School of Basic Medical Sciences, New York Medical College, New York, NY, "Cytokine Networks: A Pulmonary Perspective."

November 10, 1993, Invited Discussant, Clinical Panel Discussion, Annual Meeting and Scientific Session, Connecticut Thoracic Society.

December 14, 1993, Invited Speaker, New York University Medical Center, New York, NY, "IL-6 Type Cytokines in Pulmonary Inflammation."

January 12, 1994, Visiting Pulmonary Scholar, University of North Carolina, Chapel Hill, NC, "Cytokine Network in Pulmonary Inflammation With Emphasis on IL-6-Type Cytokines."

January 24, 1994, Invited Speaker, John B. Pierce Foundation, New Haven, CT, "IL-6-Type Cytokines in the Lung."

March 11, 1994, Invited Speaker, Norwalk Hospital, Norwalk, CT, "Clinical Implications of Cytokine Networking in the Lung."

March 24, 1994, Invited Speaker, Genetics Institute, Cambridge, MA, "IL-11 in the Pathogenesis of Viral-Induced Pulmonary Airways Disease."

March 31, 1994, Visiting Professor, Hospital of the University of Pennsylvania, Philadelphia, PA, "IL-11 in the Pathogenesis of Viral-Induced Asthma."

April 14, 1994, Visiting Professor, Boston University, Boston, MA, "IL-11 in the Pathogenesis of Airways Dysfunction."

June 20, 1994, Invited Speaker, New York Academy of Sciences Meeting on IL-6-Type Cytokines, Poznan, Poland (Sponsored jointly by the New York Academy of Sciences and the Polish Academy of Sciences), "IL-11 and Respiratory Inflammation."

June 22, 1994, Chairperson, New York Academy of Sciences Meeting on IL-6-Type Cytokines, Poznan, Poland (Sponsored jointly by the New York Academy of Sciences and the Polish Academy of Sciences), Scientific Session on "Preclinical and Clinical Therapeutics of Interleukin-6-Type Cytokines."

June 22, 1994, Roundtable Panelist, New York Academy of Sciences Meeting on IL-6-Type Cytokines (Sponsored jointly by the New York Academy of Sciences and the Polish Academy of Sciences), Poznan, Poland, "IL-6-Type Cytokines in Diagnostics and Therapeutics."

July 20, 1994, Grand Rounds, Stamford Hospital, Stamford, CT, "Sarcoidosis."

August 8, 1994, Invited Speaker, Summer Lecture Series, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Sarcoidosis."

September 19, 1994, Invited Speaker, Pulmonary Lung Biology Research Conference, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Molecular Techniques."

September 22, 1994, Invited Speaker, Primary Care Clerkship, Yale-New Haven Hospital, New Haven, CT, "Pulmonology in the Primary Care Setting."

September 26, 1994, Invited Speaker, University of Arizona, Tucson, AZ, "IL-6-Type Cytokines in Pulmonary Inflammation."

October 17, 1994, Chairperson, 8th International Colloquium on Pulmonary Fibrosis, Dijon, France, "Cytokines / Growth Factors/Mediators."

November 30, 1994, Medical Grand Rounds, Veterans Affairs Medical Center, San Diego, CA, "Sarcoidosis."

December 1, 1994, Pulmonary Grand Rounds, University of California at San Diego, San Diego, CA, "Implications of Cytokine Networking in the Lung."

December 8, 1994, Invited Speaker, Waterbury Hospital, Waterbury, CT, "Sarcoidosis."

December 12, 1994, Invited Speaker, Pulmonary Lung Biology Conference, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "IL-6-Type-Cytokines in Pulmonary Inflammation."

December 13, 1994, Visiting Professor, University of Maryland, Baltimore, MD, "Interleukin-6 and -11 in Respiratory Inflammation."

January 17, 1995, Medical Rounds, Bridgeport Hospital, Bridgeport, CT, "Clinical Implications of Cytokines."

January 26, 1995, Invited Speaker, Hill Health Center, New Haven, CT, "Diagnosis and Clinical Management of Sarcoidosis."

February 9, 1995, Visiting Professor, University of Wisconsin, Madison, WI, "IL-6 and IL-11 in Infection and Inflammation."

February 9, 1995, Pulmonary Grand Rounds, University of Wisconsin, Madison, WI, "Clinical Implications of Cytokine Networking in the Lung."

March 2, 1995, Invited Speaker, Miles Pharmaceutical Division, Miles Laboratories, Inc., West Haven, CT, "IL-4 and IL-11 in Respiratory Inflammation and Viral Infection."

March 16, 1995, Medical Grand Rounds, Yale University School of Medicine, New Haven, CT, "Asthma as an Inflammatory Disease."

March 30, 1995, Invited Speaker, University of Massachusetts, Worcester, MA, "IL-11 in Respiratory Inflammation."

April 8, 1995, Invited Speaker, 171st Meeting of the Interurban Clinical Club, Frontiers in Biomedical Research at Yale, The Historical Library, Harvey Cushing/John Hay Whitney Medical Library, Yale University School of Medicine, New Haven, CT, "IL-11 and IL-6 in Respiratory Inflammation and Viral Infection."

April 18, 1995, Invited Speaker, National Institutes of Health Workshop: The Mouse as a Model for Cardiovascular and Pulmonary Research, Bethesda, MD, "Transgenic Modeling of Airways Inflammation and Hyperresponsiveness."

April 25, 1995, Invited Speaker, Abbott Laboratories, Abbott Park, IL, "IL-11 in Respiratory Viral Infections and Airway Hyperresponsiveness."

May 20, 1995, Chairperson, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, Seattle, WA, "Virus-Induced Airways Dysfunction."

May 20, 1995, Invited Speaker, Postgraduate Course entitled "Virus-Induced Airways Dysfunction" presented at the Annual Meeting of the American Thoracic Society, Seattle, WA, "Interleukin-11 in Viral Respiratory Infection."

May 24, 1995, Invited Speaker, Symposium entitled "Gene Control in the Bronchial Epithelium: Mechanisms of Airway Disease and New Treatment Strategies" presented at the Annual Meeting of the American Thoracic Society, Seattle, WA, "Mechanisms of Regulation of Epithelial IL-6-Type Cytokine Production."

June 10, 1995, Invited Speaker, Aspen Lung Conference, Aspen, CO, "Transgenic Modeling of Cytokines in the Investigation of Lung Disease."

July 15-17, 1995, Invited Speaker and Co-Chairman of Symposium entitled "Cytokines in Asthma: New Frontiers" presented at the Asthma 95: Theory to Treatment Joint Conference (Sponsored by the American Academy of Allergy and Immunology and the American Thoracic Society), Chicago, IL, "Interleukin-11 in Viral Asthma."

September 1, 1995, Invited Speaker, Norwalk Hospital, Norwalk CT, "The Inflammatory Pathogenesis of Human Asthma."

September 8, 1995, Invited Speaker, The Robert L. Mayock M.D. Honorary Lecture, Annual Meeting of the Pennsylvania and New Jersey Thoracic Societies, Philadelphia, PA, "Clinical Implications of Cytokine Networking in the Lung."

September 12, 1995, Invited Speaker, Council of the National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, "Transgenic Modeling of Airway Inflammatory Disorders."

September 13, 1995, Invited Speaker, St. Vincent's Hospital, Bridgeport, CT, "Systemic Sarcoidosis."

October 20, 1995, Invited Speaker, Course entitled "Update on Bronchial Asthma," Tufts University School of Medicine, Boston, MA, "Inflammatory Pathogenesis of Asthma."

October 20, 1995, Grand Rounds, New England Medical Center, Boston, MA, "Inflammatory Pathogenesis of Asthma."

November 8, 1995, Chairman of Symposium, Fifth Annual Lung Cell Biology Meeting, Woods Hole, MA, "Cytokine Participation in the Inflammation of Asthma."

November 8, 1995, Invited Speaker, Fifth Annual Lung Cell Biology Meeting, Woods Hole, MA, "IL-6-Type Cytokines in Respiratory Infection and Inflammation."

November 20, 1995, Invited Speaker, Pediatric Infectious Diseases, Yale University School of Medicine, New Haven, CT, "Interleukin-11 in Respiratory Viral Infections."

December 7, 1995, Invited Speaker, Genetics Institute, Andover, MA, "Interleukin-11 in Respiratory Infection and Inflammation."

December 15, 1995, Invited Speaker, Section of Allergy and Immunology, Yale University School of Medicine, New Haven, CT, "IL-11 in Infection and Inflammation."

March 15, 1996, Invited Lecturer, 8th Hellenic Congress of Chest Diseases, Athens, Greece, "Inflammation in the Pathogenesis of Asthma."

March 16, 1996, Invited Lecturer, 8th Hellenic Congress of Chest Diseases, Athens, Greece, "Clinical Implications of Cytokine Networking in the Lung."

March 28, 1996, Invited Speaker, Respiratory Biology and Toxicology/SCOR Seminar Series, Department of Environmental Medicine, University of Rochester, Rochester, NY, "Interleukin-11 in Respiratory Infection and Inflammation."

May 7, 1996, Invited Speaker, Medical Grand Rounds, Hospital of Saint Raphael, New Haven, CT, "Systemic Sarcoidosis."

May 11, 1996, Chairperson, Postgraduate Course, Annual Meeting of the American Thoracic Society, New Orleans, LA, "Transgenic Mouse Models as Tools for Studying Lung Inflammation, Fibrosis and Development."

May 11, 1996, Invited Speaker, Annual Meeting of the American Thoracic Society, New Orleans, LA, "Transgenic Models of Airway Inflammation and Hyperresponsiveness."

May, 13, 1996, Co-Chair of Mini-Symposium, Annual Meeting of the American Thoracic Society, New Orleans, LA, "Inflammation in Asthma: Insights Into Mechanisms."

July 17, 1996, Invited Speaker, Rheumatology Section, Yale University School of Medicine, New Haven, CT, "Clinical Implications of Cytokine Networking in the Lung."

September 20, 1996, Invited Speaker, Workshop entitled "Effects of Growth and Development on Lung Function: Models for Study of Childhood Asthma," National Institutes of Health, National Heart, Lung and Blood Institute, "The Use of Transgenic Models to Study the Pathogenesis of Asthma."

October 11, 1996, Invited Speaker, Research Seminar on Chest-Related Diseases, University of Pennsylvania, Philadelphia, PA, "Transgenic Modeling of IL-6-Type Cytokines in Asthma and Airway Inflammation."

October 22, 1996, Invited Speaker, Roche Seminar on Pharmaceutical Research, Yale University School of Medicine, New Haven, CT, "Inflammatory Cytokines in Viral Infection and Asthma."

October 23, 1996, Invited Speaker, Sixth Annual Lung Cell Biology Conference on "The Molecular Biology of Fibrotic Lung Disease," Woods Hole, MA, "Transgenic Modeling of Airway Inflammation and Fibrosis."

November 13, 1996, Invited Speaker, 9th International Colloquium on Pulmonary Fibrosis, Oaxaca, Mexico, "Airway Fibrosis and Enhanced Oxygen Tolerance in IL-11 Overexpression Transgenic Mice."

November 13, 1996, Co-Chair of Session, 9th International Colloquium on Pulmonary Fibrosis, Oaxaca, Mexico, "Gene Transfer/Transgenic Mice."

November 19-20, 1996, Invited Participant, American Thoracic Society Ad-Hoc Committee, Chicago, IL, "Evaluation and Treatment of Refractory Asthma."

December 18, 1996, Invited Speaker, Department of Cell Biology, University of Massachusetts Medical Center, Worcester, MA, "IL-6-Type Cytokines in Respiratory Infection and Inflammation."

January 7, 1997, Grand Rounds, Mount Sinai Medical Center, New York, NY, "Inflammation in the Pathogenesis of Asthma."

February 4, 1997, Invited Speaker, Beer Seminar, Meakins-Christie Laboratories, McGill University, Montreal, Canada, "IL-6-Type Cytokines in Respiratory Infection and Inflammation."

February 25, 1997, Invited Speaker, Graduate School of Basic Medical Sciences, New York Medical College, Valhalla, NY, "Cytokine Networks: A Pulmonary Perspective."

March 5, 1997, Invited Faculty Member, 4th International Congress on Immune Consequences of Trauma, Shock and Sepsis: Mechanisms and Therapeutic Approaches, Munich, Germany, "IL-11-Induced Protection in Models of Pulmonary Oxygen Toxicity and Thoracic Radiation."

March 18, 1997, Invited Speaker, Nebraska Allergy Society Meeting, Omaha, NE, "IL-11 in Respiratory Inflammation and Infection."

- March 19, 1997, Grand Rounds, Creighton University, Omaha, NE, "Inflammation in the Pathogenesis of Asthma."
- April 14, 1997, Invited Speaker, University of Iowa College of Medicine, Iowa City, IO, "Interleukin-11 in Respiratory Inflammation and Infection."
- May 8, 1997, Visiting Professor, Grand Rounds, Columbia-Michael Reese Hospital and Medical Center, Chicago, IL, "Inflammation in the Pathogenesis of Asthma."
- May 9, 1997, Visiting Professor, University of Michigan, Ann Arbor, MI, "Transcriptional Regulation and Transgenic Modeling of IL-11 in the Lung."
- May 16, 1997, Invited Speaker, Fourth Annual Allergy Fellows Symposium presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Cytokines in Asthma."
- May 18, 1997, Co-Chair of Mini-Symposium, "Molecular Models of Inflammation" presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Transgenic Modeling in the Investigation of Pulmonary Diseases."
- May 20, 1997, Co-Chair of Mini-Symposium presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Cytokines and Lung Cell Biology."
- May 21, 1997, Co-Chair of Mini-Symposium, "Viruses, Airway Responsiveness and Inflammation" presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Mechanisms of Rhinovirus Regulation of Epithelial Cell Cytokine Transcription."
- September 11, 1997, Medical Grand Rounds, University of Minnesota, Minneapolis, MN, "Inflammation in the Pathogenesis of Asthma."
- September 11, 1997, Invited Speaker, University of Minnesota, Minneapolis, MN, "Interleukin-11 in Respiratory Inflammation and Viral Infection."
- September 25, 1997, Invited Speaker, Genetics Institute, Andover, MA, "Interleukin-11 Protection in the Lung."
- September 26, 1997, Invited Speaker, Beth Israel-Deaconess Medical Center, Boston, MA, "Transgenic Modeling and the Protective Effects of Interleukin-11 in the Lung."
- October 10, 1997, Visiting Professor, Fifth Annual Research and Alumni Day, Cleveland Clinic Foundation, Cleveland, OH, "Interleukin-11 in Airway Inflammation, Asthma and Other Disorders."
- November 6, 1997, Invited Speaker, Annual Research Dinner, Maryland Thoracic Society, Baltimore, MD, "IL-11 in Respiratory Infection, Inflammation and Injury."
- December 19, 1997, Grand Rounds, St. Mary's Hospital, Waterbury, CT, "The Inflammatory Pathogenesis of Asthma."
- January 8, 1998, Invited Speaker, Washington University School of Medicine, St. Louis, MO, "IL-11 in Respiratory Infection and Inflammation."
- January 8, 1998, Invited Speaker, Washington University School of Medicine, St. Louis, MO, "Inflammatory Pathogenesis of Asthma."
- January 22, 1998, Grand Rounds, Tulane University Medical Center, New Orleans, LA, "Inflammation in the Pathogenesis of Asthma."



January 29, 1998, Invited Speaker, Immunobiology Seminar Series, Yale University School of Medicine, New Haven, CT, "Characterization and Transgenic Modeling of IL-11 in the Lung."

February 2, 1998, Invited Speaker, Chemokines, Eosinophils and Asthma Workshop, Montreal, Quebec, Canada, "Chemokines - Transgenic Animals."

February 12, 1998, Invited Speaker, CHRC Post-Doctoral Fellows Conference, Respiratory Medicine (Pediatrics), Yale University School of Medicine, New Haven, CT, "Transgenic Modeling and Regulation of IL-11 in the Lung."

March 5, 1998, Invited Speaker, Washington University, St. Louis, MO, "IL-11 in Respiratory Infection and Inflammation."

March 5, 1998, Invited, Speaker, Washington University, St. Louis, MO, "Inflammatory Pathogenesis of Asthma."

March 14, 1998, Invited Speaker, American Academy of Allergy, Asthma and Immunology Annual Meeting, Washington, D.C., "Transgenic Modeling of Cytokine-Induced Chronic Airway Alterations."

March 16, 1998, Invited Speaker, Symposium to celebrate 50th Anniversary of the National Heart, Lung and Blood Institute, National Institutes of Health, "Transgenic Approaches to Airway Injury and Repair."

March 27, 1998, Invited Speaker, Millennium Pharmaceuticals, Cambridge, MA, "Genes Without Functions: Investigation Via Overexpression Modeling."

March 31, 1998, Invited Speaker, Conference on The Molecular Basis of Asthma: Fundamental Processes with Potential Genetic and Therapeutic Targets, The Banbury Center, Long Island, NY, "Transgenic Modeling of Airway Inflammation and Repair: Lessons From IL-11 and IL-6 Transgenic Mice."

April 7-9, 1998, Pfizer Professor in Allergy and Asthma, University of Iowa, Iowa City, IA, "Interleukin-11 in Pulmonary Inflammation and Repair" and "Inflammation in the Pathogenesis of Asthma."

April 13, 1998, Invited Speaker, Magainin Pharmaceuticals, Inc., Plymouth Meeting, PA, "Inflammation and Transgenic Modeling of Asthma."

April 24, 1998, Invited Speaker, Fifth Annual Allergy Fellows Symposium presented at the Annual Meeting of the American Thoracic Society, Chicago, IL, "The Role and Contribution of Cytokines in Allergic Inflammation."

April 27, 1998, Invited Speaker, Symposium on the "Mechanisms of Injury and Treatment Strategies in RSV Bronchiolitis" presented at the Annual Meeting of the American Thoracic Society, Chicago, IL, "The Role and Contribution of Cytokines in Allergic Inflammation."

April 28, 1998, Invited Speaker, Symposium on "What Have We Learned About Lung (Patho) Biology From Transgenic and Gene Targeted Mice?" presented at the Annual Meeting of the American Thoracic Society, Chicago, IL, "Lung-Specific, Inducible Expression of Cytokines as a Model for Asthma."

April 29, 1998, Co-Chair of Symposium presented at the Annual Meeting of the American Thoracic Society, Chicago, IL, "Severe Asthma: A Distinct Entity?"

May 20, 1998, Invited Speaker, Connecticut State Chest Conference, Yale University School of Medicine, New Haven, CT, "Inflammation in the Pathogenesis of Asthma."

June 22-25, 1998, Invited Participant, US National Institutes of Health-Germany Cooperative Workshop, Berlin, Germany, "Early Life Origins of Asthma."

July 23, 1998, Invited Speaker, The Perdue Frederick Company, Norwalk, CT, "IL-11 in Respiratory Infection and Inflammation."

September 2, 1998, Invited Participant, National Institutes of Health/National Heart, Lung and Blood Institute Workshop, "The Role of Infectious Agents and Atopy in the Development of COPD," Bethesda, MD, "Use of Transgenic Technology."

September 14, 1998, Invited Participant, National Institutes of Health/National Heart, Lung and Blood Institute Workshop, "Airway Remodeling and Repair," Rockville, MD, "Transgenic Expression of IL-11 and Airway Remodeling."

September 16, 1998, Invited Speaker, Imperial College School of Medicine, "Conquering Airway Inflammation in the 21st Century," London, United Kingdom, "IL-11 in Respiratory Infection and Inflammation."

November 19, 1998, Invited Speaker, National Institutes of Health/National Heart, Lung and Blood Institute Sponsored Conference, "Community and Science: Models for Success," Tuskegee University/Kellogg Conference Center, Tuskegee, AL, "Transgenic Modeling of Airway Inflammation in Asthma."

December 7, 1998, Invited Speaker, National Institutes of Health/AAAI Sponsored Conference, "Cytokines in Immune and Infectious Disease," NIH, Bethesda, MD, "Interleukin-11 in Respiratory Infection and Inflammation."

January 20, 1999, Visiting Professor, Department of Cell and Structural Biology, University of Texas at San Antonio, San Antonio, TX, "Inducible Transgenic Modeling of IL-11 and IL-13 in Respiratory Injury and Repair."

January 29, 1999, Invited Speaker, Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ, "Transgenic Modeling of IL-11 and IL-13 in Respiratory Inflammation."

February 2, 1999, Invited Speaker, Cytokine and Chemokine Receptors: Role in Allergic Inflammation Conference, Quebec, Canada, "IL-6 Receptors in Superfamily."

February 10, 1999, Internal Medicine Grand Rounds, University of California at Davis, Davis, CA, "Inflammation in the Pathogenesis of Asthma."

February 11, 1999, Visiting Professor, Center for Comparative Respiratory Biology and Medicine, University of California at Davis, Davis, CA, "Transgenic Modeling of Interleukin-11 and Interleukin-13 in the Lung."

February 12, 1999, Visiting Professor, Division of Pulmonary and Critical Care Medicine, University of California at San Francisco, San Francisco General Hospital, San Francisco, CA, "Transgenic Modeling of Interleukin-11 and Interleukin-13 in the Lung."

February 28, 1999, Invited Speaker, 55th Annual Meeting of the American Academy of Allergy, Asthma and Immunology, Orlando, FL, "Regulated Overexpression of Interleukin-11 in the Lung."

March 8, 1999, Invited Speaker, John B. Pierce Foundation, New Haven, CT, "Transgenic Modeling of Interleukin-11 and IL-13 in the Lung."

April 23, 1999, Invited Speaker, Sixth Annual Allergy Fellows Symposium presented at the Annual Meeting of the American Thoracic Society, San Diego, CA, "Cytokines and Cytokine-Induced Remodeling in Asthmatic Inflammation."

April 24, 1999, Invited Speaker, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, San Diego, CA, "Anti-Inflammatory and Cytoprotective Effects of Cytokines."

April 25, 1999, Invited Speaker, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, San Diego, CA, "Anti-Inflammatory Cytokines: Is There Potential for Disease Control?"

May 18, 1999, Invited Speaker, Genetics Institute, Andover, MA, "Transgenic Modeling of IL-11 and IL-13 in the Lung."

May 21, 1999, Invited Speaker, Laval University, Quebec, Canada, "Transgenic Modeling of IL-11 and IL-13 in the Lung."

July 16, 1999, Invited Speaker, 1999 Regional Respiratory Consultants' Meeting, Merck & Company, Inc., Nantucket, MA, "Airway Remodeling in Asthma."

July 20, 1999, Grand Rounds, Merck & Company, Inc., West Point, PA, "Airway Remodeling: Lessons From Transgenic Mice."

August 17, 1999, Invited Speaker, Eli Lilly Research Laboratories, Indianapolis, IN, "Airway Inflammation and Remodeling in Asthma: Lessons From IL-11 and IL-13 Transgenic Mice."

September 2, 1999, Invited Judge: Young Scientists Competition, British Association for Lung Research Summer Meeting, Cambridge, England.

September 3, 1999, Invited Speaker, British Association for Lung Research Summer Meeting on Genetic Factors in Lung Disease, Cambridge, England, "Transgenic Mice in Lung Research: Lessons From IL-11 and IL-13 Mice."

September 23, 1999, Invited Speaker, Third Annual Thomas J. Godar Pulmonary and Critical Care Medicine Symposium, St. Francis Hospital and Medical Center, Hartford, CT, "Airway Inflammation and Remodeling in Asthma: Lessons From IL-11 and IL-13 Transgenic Mice."

October 2, 1999, Invited Speaker, 1999 Merck-National Respiratory Consultants Meeting, Vancouver, Canada, "Airway Remodeling in Asthma."

October 13, 1999, Invited Speaker, 1999 Annual Congress of the European Respiratory Society, Madrid, Spain, "Airway Remodeling in Asthma: Lessons From Transgenic Mice."

November 4, 1999, Invited Speaker, Singulair Advisory Board Meeting, Lisbon, Portugal, "Airway Remodeling in Asthma: Lessons From IL-11 and IL-13 Transgenic Mice."

November 15, 1999, Invited Speaker, National Institutes of Health Joint Meeting: Role of Respiratory Infections in Childhood Asthma and Origins of Asthma in Early Life RFAs, Bethesda, MD, "Inducible Transgenic Modeling of Inflammation in the Lung."

November 30, 1999, Invited Speaker, Biogen, Inc., Cambridge, MA, "Airway Remodeling in Asthma and COPD: Lessons From IL-11 and IL-13 Transgenic Mice."

December 11, 1999, Invited Speaker, Keynote Presentation, 1st International Conference entitled "Immunopharmacology of Bronchial Asthma," Taipei, Taiwan, "Airway Remodeling in Asthma: Lessons From IL-11 and IL-13 Transgenic Mice."

January 11, 2000, Invited Speaker, Picower Institute, Manhasset, NY, "Inflammation and Remodeling in Asthma: Lessons From IL-11 and IL-13 Transgenic Mice."

January 12, 2000, Invited Speaker, State University of New York, Stony Brook, NY, "Transgenic Investigations of Airway Remodeling in Asthma."

January 14, 2000, Research in Progress, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Transgenic Delineation of New Paradigms of Pathogenesis in Emphysema and Chronic Bronchitis."

January 19, 2000, Visiting Professorship, Grand Rounds, St. Elizabeth's Medical Center, Boston, MA, "Airway Remodeling in Asthma."

January 27, 2000, Grand Rounds, Vanderbilt University, Nashville, TN, "Inflammation and Remodeling in the Pathogenesis of Asthma."

January 27, 2000, Invited Speaker, Vanderbilt University, Nashville, TN, "Inflammation and Remodeling in Asthma: Lessons From IL-11 and IL-13 Transgenic Mice."

February 18, 2000, Invited Speaker, Merck & Company, Inc., Rahway, NJ, "Novel Mechanisms of Emphysema and Chronic Bronchitis: Lessons From Transgenic Mice."

February 23, 2000, Grand Rounds, Department of Medicine, Cedars-Sinai Medical Center, Los Angeles, CA, "Pathogenesis and Airway Remodeling in Asthma."

February 25, 2000, Invited Speaker, Cedars-Sinai Medical Center, Los Angeles, CA, "Inflammation and Remodeling in Asthma: Lessons From IL-11 and IL-13 Transgenic Mice."

March 3, 2000, Invited Speaker, National Institutes of Allergy and Allergic Diseases, National Institutes of Health Workshop, "Role of Animal Models in Understanding the Pathogenesis and Treatment of Asthma," 56th Annual Meeting of the American Academy of Allergy, Asthma and Inflammation, San Diego, CA, "Transgenic Modeling of Inflammation and Remodeling in Asthma: Lessons From Transgenic Mice."

March 8, 2000, Visiting Professor, Harvard Medical School Training Program in Pulmonary and Critical Care Medicine, Grand Rounds at West Roxbury VA Medical Center, Boston, MA, "Inflammation and Remodeling in the Pathogenesis of Asthma."

March 8, 2000, Visiting Professor, Harvard Medical School Training Program in Pulmonary and Critical Care Medicine, Invited Speaker, Massachusetts General Hospital, Boston, MA, "Inflammation and Remodeling in Asthma and Other Pulmonary Disorders: Lessons From IL-11 and IL-13 Transgenic Mice."

March 9, 2000, Visiting Professor, Harvard Medical School Training Program in Pulmonary and Critical Care Medicine, Grand Rounds, Beth Israel Deaconess Medical Center, Boston, MA, "Inflammation and Remodeling in the Pathogenesis of Asthma."

March 10, 2000, Visiting Professor, Harvard Medical School Training Program in Pulmonary and Critical Care Medicine, Grand Rounds, Brigham and Women's Hospital, Boston, MA, "Inflammation and Remodeling in the Pathogenesis of Asthma."

March 17, 2000, Invited Speaker, Yale University Pediatric Respiratory Medicine, New Haven, CT, "Transgenic Modeling of Cytokines in the Lung: Lessons From IL-11 and IL-13 Mice."

March 27, 2000, Invited Speaker, University of Texas Medical School, Houston, TX, "Transgenic Modeling of Cytokines in the Lung: Lessons From IL-11 and IL-13 Mice."

April 12, 2000, Invited Speaker, Connecticut State Chest Conference, Yale University School of Medicine, New Haven, CT, "Transgenic Modeling of COPD: New Insights Into Pathways of Pulmonary Proteolysis."

April 18, 2000, Invited Speaker, Bayer Biotechnology Research Meeting, Oakland, CA, "Inflammatory Mechanisms in the Pathogenesis of Asthma and Other Airway Disorders."

May 3, 2000, Invited Speaker, Immunobiology Department, Yale University School of Medicine, New Haven, CT, "Transgenic Modeling of COPD."

May 5, 2000, Invited Speaker, Postgraduate Course, "Regulation and Function of Apoptosis in Lung Biology," presented at the Annual Meeting of the American Thoracic Society, Toronto, Canada, "Transgenic Modeling of Cytoprotective Responses in Acute Lung Injury."

May 6, 2000, Invited Speaker, National Institute of Environmental Health Services Workshop, "Lung Disease and the Environment - Where Do We Go From Here?" presented at the Annual Meeting of the American Thoracic Society, Toronto, Canada, "Transgenic Approaches to Occupational and Environmental Lung Disease."

May 7, 2000, Invited Speaker, Session entitled "Lessons From New Animal Models in Asthma and COPD," presented at the Annual Meeting of the American Thoracic Society, Toronto, Canada, "Role of Interleukins in Asthma and Alveolar Enlargement."

May 8, 2000, Keynote Speaker/Participant/Co-Chair Mini-Symposium, "IL-13 in Asthma," presented at the Annual Meeting of the American Thoracic Society, Toronto, Canada, "IL-13: A Critical Mediator in Asthma and More."

May 9, 2000, Invited Participant/Co-Facilitator of Session/Thematic Poster Session, Annual Meeting of the American Thoracic Society, Toronto, Canada, "Cytokines and Mediators."

May 9, 2000, Chairperson, Symposium presented at the Annual Meeting of the American Thoracic Society, Toronto, Canada, "Respiratory Syncytial Virus Infection and Airway Inflammation."

June 3, 2000, Invited Speaker, Meakins-Christie Laboratories Workshop, McGill University, "Interaction Between Inflammation/Remodeling and Smooth Muscle," Montreal, Canada, "New Genes for Emphysema."

June 29, 2000, Invited Speaker, Second Advanced Study Institute on Etiology and Treatment of Acute Lung Injury: From Bench to Bedside, Corfu, Greece (Sponsored by the Scientific Affairs Division of the North Atlantic Treaty Organization), "Transgenic Modeling of Mechanisms of Protection in Acute Lung Injury."

July 10, 2000, Guest Lecturer, Pediatric Division, Kaplan Medical Center, Rehovot, Israel, "Airway Remodeling: Lessons From IL-11 and IL-13 Transgenic Mice."

September 12, 2000, Invited Speaker, Conference entitled "Conquering Airway Inflammation in the 21st Century," Imperial College School of Medicine, National Heart and Lung Institute, London, England, "Transgenic Modeling of Alveolar Enlargement and COPD."

September 20, 2000, Invited Speaker, CuraGen, Inc., Scientific Advisory Board Meeting, New Haven, CT, "Transgenic Approaches to Emphysema, Asthma and Pulmonary Inflammation."

September 21, 2000, Invited Speaker, Fourth Annual Thomas J. Godar Pulmonary and Critical Care Symposium, Saint Francis Hospital and Medical Center, Hartford, CT, "Pathogenesis of Pulmonary Emphysema - Concepts in the New Millennium."

September 24, 2000, Invited State-of-the-Art-Speaker, 11th International Colloquium on Lung Fibrosis, Stockholm, Sweden, "Airway Remodeling in Asthma: Lessons From Transgenic Mice."

October 5, 2000, Invited Speaker, Pulmonary Lung Biology Research Conference, Yale University School of Medicine, New Haven, CT, "Airway Remodeling in Asthma: Lessons From Transgenic Mice."

October 10, 2000, Grand Rounds, Lawrence & Memorial Hospital, New London, CT, "Airway Remodeling in Asthma."

November 17, 2000, Invited Speaker, Boehringer-Ingelheim, Inc., Ridgefield, CT, "IL-13 and Gamma Interferon in the Pathogenesis of Pulmonary Emphysema."

January 25, 2001, Invited Speaker, Transatlantic Airway Conference: Mechanisms of Airway Remodeling" (Sponsored by Boehringer-Ingelheim), Key Biscayne, FL, "Airway Inflammation and Remodeling in Asthma: Lessons From Transgenic Mice."

February 26, 2001, Invited Speaker, Schering-Plough Research Institute Workshop: Asthma and COPD, New York, NY, "Transgenic Modeling of Remodeling Responses in Asthma and COPD."

March 5, 2001, Invited Speaker, National Institutes of Health Workshop: Future Directions in COPD, Bethesda, MD, "Airway Inflammation and Proteolytic Pathway Activation in COPD: Insights From Transgenic Mice."

March 7, 2001, Visiting Professorship, MCP Hahnemann University, Philadelphia, PA. Department of Medicine Grand Rounds, "Inflammation and Airway Remodeling in Asthma" and a clinical presentation, "Transgenic Modeling in Airway Remodeling."

March 13, 2001, Invited Speaker, Investigative Medicine Program, Yale University School of Medicine, New Haven, CT, "Transgenic Investigation of Airway Inflammation and Remodeling in Asthma."

April 17, 2001, Visiting Professor, University of Alabama at Birmingham, Birmingham, AL, "Transgenic Modeling of Airway Inflammation and Remodeling in the Lung."

April 20, 2001, Invited Speaker, Section of Allergy and Clinical Immunology, Yale University School of Medicine, New Haven, CT, "Transgenic Modeling of Asthma and Emphysema."

April 26, 2001, Jerome Flance Visiting Professor of Medicine, Division of Pulmonary and Critical Care Medicine and Department of Medicine, Washington University, St. Louis, MO, Internal Medicine Grand Rounds, "Inflammation and Remodeling in the Pathogenesis of Asthma"

April 26, 2001, Jerome Flance Visiting Professor of Medicine, Division of Pulmonary and Critical Care Medicine and Department of Medicine, Washington University, St. Louis, MO, Research Talk, "Transgenic Modeling of Asthma and COPD."

May 8, 2001, Invited Speaker, Greenwich Hospital, Greenwich, CT. Subspecialty Talk, "Sarcoidosis."

May 10, 2001, Invited Speaker, Grand Rounds, Norwalk Hospital, Norwalk, CT, "Inflammation and Airway Remodeling in the Pathogenesis of Asthma."

May 22, 2001, Co-Chair and Invited Speaker, Session entitled "Mouse Transgenics and Knockouts as Tools to Define the Role of Cytokines in Lung Inflammation and Fibrosis" presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Transgenic Modeling of IL-13 in the Lung."

May 22, 2001, Co-Chair, Poster Session presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Remodeling of the Airways."

June 8, 2001, Invited Speaker, Yale University Pediatric Respiratory Medicine, New Haven, CT, "Transgenic Modeling of IL-13 in the Lung."

July 14, 2001, Invited Speaker, Third Triennial World Asthma Meeting, Chicago, IL, "Airway Remodeling: Lessons From Transgenic Mice."

July 14, 2001, Co-Chair, Oral Abstract Session presented at the Third Triennial World Asthma Meeting, Chicago, IL, "Remodeling and Inflammation."

August 24, 2001, Invited Speaker, GlaxoSmithKline, King of Prussia, PA, "Transgenic Modeling of Inflammation and Remodeling in Asthma and COPD."

August 29, 2001, Invited Speaker, Connecticut State Chest Conference, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Inflammation and Remodeling in the Pathogenesis of Asthma."

September 8, 2001, Invited Speaker, Tenth Meeting of Airway Club, Sendai, Japan, "Transgenic Investigations of Airway Remodeling."

September 10, 2001, Invited Speaker, Bayer Pharmaceuticals, Kyoto, Japan, "Transgenic Models of COPD."

September 11, 2001, Invited Speaker, Takeda Pharmaceuticals, Osaka, Japan, "Transgenic Modeling of IL-13 and Gamma-Interferon in COPD."

October 26, 2001, Invited Speaker, Section of Pulmonary and Critical Care Medicine Fellows Conference, Yale University School of Medicine, New Haven, CT, "Transgenic Modeling of IL-13 in the Lung."

October 30, 2001, Invited Speaker, Merck Research Laboratories, Rahway, NJ, "Transgenic Modeling of COPD."

November 7, 2001, Invited Speaker, Ohio State Heart and Lung Research Institute, Columbus OH, "Transgenic Modeling of Emphysema and Asthma."

November 16, 2001, Invited Speaker, Centocor, Inc., Department of Immunobiology, Malvern, PA, "Transgenic Modeling of IL-13 and Gamma-interferon in COPD."

December 6, 2001, Invited Speaker, Grand Rounds, Department of Medicine, Yale University School of Medicine, New Haven, CT, "COPD: From Epidemiology to Transgenic Modeling and Therapeutic Target Identification."

December 11, 2001, Invited Speaker, CuraGen Corporation, Branford, CT, "Transgenic Modeling of IL-13 and VEGF in the Lung."

January 11, 2002, Invited Speaker, Medical Grand Rounds, Northwestern University Medical School, Chicago, IL, "Inflammation and Remodeling in the Pathogenesis of Asthma."

January 18, 2002, Visiting Professor, Critical Care Medicine Department, National Institutes of Health, Bethesda, MD, "Transgenic Modeling of IL-13 in the Lung."

January 23, 2002, Invited Speaker, Grand Rounds, Columbia-Presbyterian Medical Center, New York, NY, "Inflammation and Remodeling in Asthma."

February 7, 2002, Invited Speaker, Winthrop University Hospital, Mineola, NY, "Transgenic Modeling of IL-13 in the Lung."

February 12, 2002, Invited Lecturer, Internal Medicine Residents, Yale University School of Medicine, New Haven, CT, Discussion entitled "Science in Medicine."

February 14, 2002, Invited Speaker, Asthma/Respiratory Seminar Series, University of Toronto, Toronto, Ontario, Canada, "Transgenic Modeling of IL-13 in the Lung."

February 21, 2002, Invited Speaker, Pulmonary Grand Rounds, University of California at Los Angeles, Los Angeles, CA, "Transgenic Modeling of IL-13 in the Lung."

February 28, 2002, Invited Speaker, Wyeth Genetics Institute, Cambridge, MA, "Transgenic Modeling of IL-13 in the Lung."

March 2, 2002, Invited Speaker, Symposium entitled "Gene Transfer in Animal Models," 2002 Annual Meeting of the American Academy of Allergy, Asthma and Immunology, New York, NY, "Transgenic Modeling of IL-13 in the Lung."

March 18, 2002, Invited Speaker, Biogen, Inc., Cambridge, MA, "Transgenic Modeling of IL-13 in the Lung."

March 21, 2002, Invited Speaker, presentation to Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT at Yale University School of Medicine, New Haven, CT, "Transgenic Modeling of Injury and Repair in the Lung."

April 15, 2002, Invited Speaker, presentation to GMP, Inc., Fort Lauderdale, FL at Yale University School of Medicine, New Haven, CT, "Transgenic Modeling of Injury and Repair in the Lung."

April 18, 2002, Invited Speaker, Benjamin Burrows Lung Immunology Seminar Series, Department of Cell Biology and Anatomy/Respiratory Sciences Center, University of Arizona, Tucson, AZ, "Transgenic Modeling of IL-13 in the Lung."

April 22, 2002. Invited Lecturer, Interdepartmental Program in Vascular Biology and Transplantation, Yale University School of Medicine, New Haven, CT, "Transgenic Modeling and Cytokines and Cytoprotective Events in the Lung."

May 7, 2002, Invited Participant, ICOS Panel Discussion, Boston, MA, "Current Concepts in the Pathogenesis of COPD."

May 9, 2002, Grand Rounds, Norwalk Hospital, Norwalk, CT, "New Concepts in the Pathogenesis of COPD."

May 18, 2002, Invited Speaker, Postgraduate Course entitled "Recent Advances in Understanding the Biology of Airway Inflammation," presented at the Annual Meeting of the American Thoracic Society, Atlanta, GA, "Cytokine Effector Mechanisms in the Pathogenesis of Asthma."

May 19, 2002, Invited Speaker, Symposium entitled "The Dutch Hypothesis Revisited: Do Asthma and COPD Have a Common Origin?" presented at the Annual Meeting of the American Thoracic Society, Atlanta, GA, "IL-13 Overexpression: A Link Between Asthma and COPD."

May 22, 2002, Invited Speaker, Symposium entitled "Molecular Basis of Cell Signaling in Inflammatory Disorders of the Lung," presented at the Annual Meeting of the American Thoracic Society, Atlanta, GA, "Use of Transgenic Models to Investigate Interleukin Signaling in Lung Disease."

May 29, 2002, Department of Medicine Grand Rounds, Jamaica Hospital Medical Center, Queens, NY, "Inflammation in the Pathogenesis of Asthma."

June 5, 2002, Invited State-of-the-Art Speaker, Forty-fifth Annual Thomas L. Petty Aspen Lung Conference, Aspen, CO. State of the Art presentation entitled "Biology of Inflammation in Asthma."

June 21, 2002, Invited Speaker and Robert E. Forster Lecturer, 8<sup>th</sup> Annual University of Pennsylvania Respiration Research Retreat, Philadelphia, PA, "Transgenic Modeling of IL-13 in the Lung."

June 24, 2002, Invited Speaker, VLA-4 Advisory Board Meeting, Sponsored by Aventis Pharmaceuticals, Annapolis, MD, "Airway Remodeling in Asthma."

August 12, 2002, Invited Speaker, Aventis Pharmaceuticals, Inc., Bridgewater, NJ, "Chitinases in Asthma and COPD."



August 14, 2002, Invited Speaker, Summer Lecture Series, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Pathogenesis of Asthma."

August 16, 2002, Invited Speaker, Section of Pulmonary and Critical Care Fellows Conference, Yale University School of Medicine, New Haven, CT, "Pathogenesis of COPD."

August 21, 2002, Invited Speaker, Scios, Inc., Sunnyvale, CA, "Transgenic Modeling of Inflammation and Remodeling in Asthma and COPD."

August 29, 2002, Invited Participant, Airway Remodeling Round Table and Advisory Board, Aventis Pharmaceuticals, Inc., Keswick, VA, "Airway Remodeling in Asthma."

September 10, 2002, Invited Participant, National Institutes of Health/National Heart, Lung and Blood Institute/Division of Lung Diseases Working Group entitled "Characterization of COPD Subjects," Bethesda, MD, "Heterogeneity of Mechanism in COPD: Lessons From Animal Models."

September 18, 2002, Invited Speaker, CuraGen Corporation, Branford, CT, "Chitinases in Asthma" and "Transgenic Modeling of TGF- $\beta$  in the Lung."

September 19, 2002, Invited Speaker, 6<sup>th</sup> Annual Thomas J. Godar Pulmonary and Critical Care Symposium, Saint Francis Hospital and Medical Center, Hartford, CT, "New Concepts in the Pathogenesis of COPD."

September 20, 2002, Invited Speaker, Department of Medicine Grand Rounds, Greenwich Hospital, Greenwich, CT, "New Concepts in the Pathogenesis of COPD."

September 23, 2002, Invited Participant, National Institutes of Health/National Heart, Lung and Blood Institute, "Origins of Asthma in Early Life" Airway Biology Disease Program, "Transgenic Modeling of Early Life Events in Asthma."

September 25, 2002, Alpha-1 Foundation, Critical Issues Workshop entitled "Models of Emphysema: Speeding the Pace of Research," Airlie Conference Center, Warrenton, VA, "Overexpression Transgenic Modeling of COPD."

October 12, 2002, Invited Speaker, The 5<sup>th</sup> Asia Pacific Congress of Allergology and Clinical Immunology, The 7<sup>th</sup> West Pacific Allergy Symposium entitled "Allergy: An Expanding Challenge in the 21<sup>st</sup> Century," Seoul, Korea, "New Concepts in the Relationship Between COPD and Asthma: The Dutch Hypothesis."

October 13, 2002, Invited Speaker, The 5<sup>th</sup> Asia Pacific Congress of Allergology and Clinical Immunology, The 7<sup>th</sup> West Pacific Allergy Symposium entitled "Allergy: An Expanding Challenge in the 21<sup>st</sup> Century," Seoul, Korea, "Transgenic Analysis of IL-13 Effector Pathways in Asthma."

October 14, 2002, Invited Speaker, The 5<sup>th</sup> Asia Pacific Congress of Allergology and Clinical Immunology, The 7<sup>th</sup> West Pacific Allergy Symposium entitled "Allergy: An Expanding Challenge in the 21<sup>st</sup> Century," Seoul, Korea, "Transgenic Modeling of Asthmatic Airway Remodeling."

November 21, 2002, Invited Speaker, Discipline Integration and Technology Transfer Seminar Series, Conway Institute of Biomolecular and Biomedical Research, Dublin, Ireland, Plenary Lecture entitled "Transgenic Modeling of IL-13 in the Lung."

January 10, 2003, Invited Speaker, Section of Allergy and Immunology, Yale University School of Medicine, New Haven, CT, "Chitinases in Th2 Inflammation in the Lung."

January 14, 2003, Invited Speaker, Medical Grand Rounds, Hospital of Saint Raphael, New Haven, CT, "New Concepts in the Pathogenesis of Asthma."

- February 17, 2003, Invited Speaker, Sixth Annual Meakins-Christie Workshop entitled "Asthma and COPD," McGill University, Quebec, Canada, "Chitinases in Asthma."
- February 28, 2003, Invited Speaker, Medical Grand Rounds, University Hospitals of Cleveland/Case Western Reserve University, Cleveland, OH, "New Concepts in the Pathogenesis of COPD."
- March 3, 2003, Invited Speaker, Chronic Obstructive Pulmonary Disease Strategic Expert Meeting, Schering-Plough Research Institute, Short Hills, NJ, "Animal Models in COPD."
- March 19, 2003, Invited Speaker, Grand Rounds, Department of Pediatrics, Children's Hospital at Montefiore/Albert Einstein College of Medicine of Yeshiva University, Bronx, NY, "Chronic Lung Disease of the Newborn - Past, Present and Future."
- March 21, 2003, Keynote Speaker, Merck Frosst Centre for Therapeutic Research, Lecture Series entitled "Advances in Respiratory Therapeutics and Inflammation Research," Quebec, Canada, "Transgenic Modeling of Emphysema: A Discussion of the Mechanisms of Emphysema in Transgenic Mice."
- March 28, 2003, Invited Speaker, Merck Research Laboratories, Rahway, NJ, "Chitinases in Th2 Inflammation and Asthma" and "Transgenic Analysis of Mechanisms of Pulmonary Emphysema."
- April 1, 2003, Invited Speaker, Pathology 690 Graduate Course, Boyer Center for Molecular Medicine, Yale Medical School, New Haven, CT, "New Concepts in the Pathogenesis of COPD."
- April 3, 2003, Invited Speaker, CuraGen Corporation, New Haven, CT, "New Concepts in the Pathogenesis of COPD."
- May 3, 2003, Invited Speaker, Health Matters Communications, Conference entitled "Similarities and Differences in Asthma and COPD: The Dutch Hypothesis," New York, NY, "Pathogenesis of Asthma and COPD: Similarities and Differences."
- May 14, 2003, Invited Speaker, Third Annual Sandler Program for Asthma Research Meeting, San Francisco, CA, "Transgenic Analysis of IL-13 Effector Responses in the Lung."
- May 17, 2003, Chairperson, Postgraduate Course entitled "Bench to ICU Bedside: Functional Genomics and the Future of Translational Research in the ICU," Annual Meeting of the American Thoracic Society, Seattle, WA, "Transgenic Models of Cytoprotection in Acute Lung Injury."
- May 19, 2003, Recognition Award for Scientific Accomplishment, Annual Meeting of the American Thoracic Society, Seattle, WA, "Transgenic Modeling of Lung Disease: A Key to the Lock of Disease Pathogenesis."
- June 4, 2003, Visiting Professor, Allergy and Immunology Center, Johns Hopkins University, Baltimore, MD, "Transgenic Modeling of IL-13 in the Lung."
- June 4, 2003, Visiting Professor, Pulmonary and Critical Care Medicine, University of Maryland, Bethesda, MD, "Transgenic Modeling of IL-13 in the Lung."
- June 5, 2003, Visiting Professor, Pediatric Immunology Center, Johns Hopkins Children's Center, Baltimore, MD, "Transgenic Modeling of IL-13 in the Lung."
- June 5, 2003, Visiting Professor, National Institutes of Health, Bethesda, MD, "Transgenic Modeling of IL-13 in the Lung."

June 19, 2003, Invited Speaker, Ninteenth Annual Dr. Dorothy Wiselberg Seminar, Montreal, Canada, "Th2 Inflammation-Induced Fibrosis in the Lung: Interactions of IL-13, TGF- $\beta$  and Apoptosis."

July 21, 2003, Invited Speaker, Millennium Pharmaceuticals, Inc., Cambridge, MA, "Transgenic Approaches to Target Validation in COPD."

August 8, 2003, Invited Participant, Amgen, Seattle, WA, "Role of Chitinases in the Pathogenesis of Antigen and IL-13-Stimulated Inflammation."

August 27, 2003, Invited Speaker, Alnylam Pharmaceuticals, Inc., Cambridge, MA, "Transgenic Modeling of Asthma, COPD and Other Lung Diseases."

August 29, 2003, Invited Speaker, Pulmonary Fellows Conference, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Pathogenesis of COPD."

September 23, 2003, Invited Speaker, MedImmune, Gaithersburg, MD, "Role of Chitinases in the Pathogenesis of Antigen and IL-13-Stimulated Inflammation."

December 6, 2003, Keynote Speaker, Vascular Biology and Transplantation 2003 Retreat, Yale University School of Medicine, New Haven, CT, "VEGF in Th2 Inflammation and Asthma."

January 14, 2004, Connecticut State Chest Conference, Yale University School of Medicine, New Haven, CT, "Pathogenesis of COPD."

January 31, 2004, Invited Speaker, Seventh Annual Meakins-Christie Workshop, McGill University, Montreal, Canada, "VEGF and the Vascular Basis of Asthma."

March 19, 2004, Invited Speaker, Novartis Horsham Research Centre, Horsham, United Kingdom, "Recent Findings in Airway Disease."

March 23, 2004, Invited Speaker, American Academy of Allergy, Asthma and Immunology Annual Meeting, San Francisco, CA, "Metalloproteinases and Lung Remodeling."

April 1, 2004, Invited Speaker, Cell Biology, Boyer Center for Molecular Medicine, Yale University School of Medicine, New Haven, CT, "New Concepts in the Pathogenesis of Asthma."

April 9, 2004, The Korean Academy of Tuberculosis & Respiratory Diseases, Korean Allergy Society, Daegu, Korea, "New concepts in the pathogenesis of COPD."

April 10, 2004, The Korean Thoracic Society Annual Meeting, Daegu, Korea, "New concepts in the pathogenesis of COPD."

April 18, 2004, Invited Speaker, Experimental Biology Annual Meeting, Washington, D.C., "Chitinases in Asthma Pathogenesis."

May 3, 2004, Invited Speaker, Genentech, Inc., San Francisco, CA, "VEGF in Asthma Pathogenesis."

May 18, 2004, Invited Speaker, Department of Internal Medicine, University of Chicago, Chicago, IL, "New Concepts in the Pathogenesis of COPD."

May 22, 2004, Invited Speaker, Postgraduate Course entitled "Biology and Therapeutic Targets of Airway Inflammation," Annual Meeting of the American Thoracic Society, Orlando, FL, "Airway Inflammation and Remodeling in Asthma."

May 23, 2004, Invited Speaker, Symposium entitled "Postnatal Alveolar Morphogenesis and Architectural Stability: Genetic/Environmental Interactions," Annual Meeting of the American Thoracic Society, Orlando, FL, "Mechanisms of Inflammatory Alveolar Destruction: A Transgenic Analysis."

May 23, 2004, Invited Speaker, Millennium Pharmaceuticals Mini-Symposium entitled "Cell Migration and Activation: Novel Insights into Lung Inflammation in Asthma and COPD," Annual Meeting of the American Thoracic Society, Orlando, FL, "NF- $\kappa$ B and CCR5 in the Pathogenesis of COPD."

May 24, 2004, Invited Speaker, Symposium entitled "At the Interface of Injury and Repair: Matrix, Cellular and Developmental Paradigms of Remodeling in Lung Disease," Annual Meeting of the American Thoracic Society, Orlando, FL, "Role of VEGF in Lung Inflammation and Tissue Remodeling."

May 26, 2004, Invited Speaker, Symposium entitled "All Roads Lead to Proteinases: COPD, Asthma and More," Annual Meeting of the American Thoracic Society, Orlando, FL, "IL-13, IFN- $\gamma$ , MMPs and Cathepsins in Inflammation and Repair."

June 28, 2004, Visiting Professor, Division of Pulmonary and Critical Care Medicine, University of Chicago, Chicago, IL, "VEGF in Asthma Pathogenesis."

June 29, 2004, Visiting Professor, Division of Pulmonary and Critical Care Medicine, Northwestern University, Chicago, IL, "Chitinases in Asthma Pathogenesis."

July 13, 2004, Invited Speaker, Connecticut Mental Health Center, New Haven, CT, "Mechanisms of Cigarette Smoke-Induced Lung Disease: A Cigarette and Smoking-Based Analysis."

July 26, 2004, Invited Speaker, Aventis Pharmaceuticals, Inc., Bridgewater, NJ, "VEGF in Asthma Pathogenesis."

August 4, 2004, Invited Speaker, Summer Lecture Series, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Pathogenesis of COPD."

August 11, 2004, Invited Consultant to NIH Funded Asthma Care Research Network (ACRN) Retreat, Boston, MA, "Opportunities in Asthma Research."

August 13, 2004, Invited Speaker, Medical Grand Rounds, Greenwich Hospital, Greenwich, CT, "New Concepts in the Pathogenesis of COPD."

September 28, 2004, Invited Participant, NIH/NHLBI Working Group, Bethesda, MA, "Gamma Interferon-Induced Apoptosis in COPD."

October 18, 2004, Invited Speaker, 13<sup>th</sup> International Colloquium on Lung Fibrosis, Banff, Alberta, CA, "The IL-13-TGF- $\beta$  Th2 Fibrotic Pathway in the Lung."

November 16, 2004, Invited Speaker, Pathology 690 Graduate Course, Boyer Center for Molecular Medicine, Yale Medical School, "New Concepts in the Pathogenesis of Asthma."

November 18, 2004, Invited Speaker, Isis Pharmaceuticals, Carlsbad, CA, "Transgenic Modeling of Pulmonary Diseases and Disorders."

November 19, 2004, Invited Speaker, Center for Lung Biology Research Seminar Series/Visiting Professor, Pulmonary Division, University of Southern California, Los Angeles, CA, "Chitinases in the Pathogenesis of Asthma and Th2 Inflammation."

December 8, 2004, Invited Speaker, Pulmonary Grand Rounds, The Pulmonary Center, Boston University School of Medicine, Boston, MA, "VEGF in Asthma and Th2 Inflammation."

December 8, 2004, Invited Speaker, Immunology Program Seminar Series, Microbiology Department, Boston University School of Medicine, Boston, MA, "VEGF in Asthma and Th2 Inflammation."

December 15, 2004, Invited Speaker, Connecticut State Chest Conference, Yale University School of Medicine, New Haven, CT, "Chitinases in Asthma and Th2 Immunity."

January 5, 2005, Invited Speaker, Medical Grand Rounds, New York University, New York, NY, "New Concepts in the Pathogenesis of COPD."

January 5, 2005, Invited Speaker, Pulmonary Grand Rounds, New York University, New York, NY, "Chitinases in Asthma."

January 13, 2005, Invited Speaker, Pulmonary Division, St. Elizabeth's Medical Center, Boston, MA, "Transgenic Modeling of Emphysema."

January 14, 2005, Invited Speaker, Asthma Grand Rounds, Brigham and Women's Hospital, Boston, MA, "New Therapeutic Targets in Asthma."

January 18, 2005, Invited Speaker, Infection and Immunology Visiting Lecture Series, Louisiana State University, New Orleans, LA, "VEGF in Th2 Inflammation and Asthma."

January 18, 2005, Invited Speaker, Louisiana State University, New Orleans, LA, "Chitinases in Th2 Inflammation and Asthma."

January 21, 2005, Invited Speaker, The Trudeau Speaker, 2005 Scientific Assembly of the New York State Thoracic Society, West Point, NY, "Novel Mechanisms of Inflammation in Asthma."

February 4, 2005, Invited Speaker, Merck-Frosst, Montreal, Canada, "Transgenic Modeling of COPD."

February 6, 2005, Invited Speaker, 8<sup>th</sup> Annual Meakins-Christie Workshop, McGill University, Quebec, Canada, "Protease-Mediated Apoptosis in Emphysema."

February 8, 2005, Invited Speaker, Immunology Seminar Series, University of California San Diego, San Diego, CA, "Chitinases in Th2 Inflammation and Asthma."

February 9, 2005, Invited Speaker, Medical Grand Rounds, University of California San Diego, San Diego, CA, "New Concepts in the Pathogenesis of COPD."

February 16, 2005, COPD Day Symposium, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "Mechanisms of Th1-Mediated Alveolar Destruction" and "Initiation and Amplification Mechanisms in COPD."

February 23, 2005, Invited Participant, Johnson & Johnson, Discovery in Respiratory Medicine: From Animal Models to Proof-of-Concept in Humans Meeting, Princeton, NJ, "Transgenic Modeling of COPD."

March 18, 2005, Invited Speaker, Third European Respiratory Society Lung Science Conference, Sicily, Italy, "Resolution of Lung Fibrosis."

April 1, 2005, Invited Speaker, Interurban Clinical Club Meeting, New Haven, CT, Lecture In Honor of Dr. E.G. Janeway, "Chitinases, Th2 Inflammation and Asthma: A Missing Link?"

April 5, 2005, Invited Speaker, 35<sup>th</sup> International Congress of Physiological Sciences Conference, San Diego, CA, "Transgenic Modeling of Lung Parenchyma and Airway Remodeling."

April 8, 2005, Invited Speaker, Alnylam Pharmaceuticals, Cambridge, MA, "Transgenic Modeling, a Key to Unlock the Pathogenesis of Lung Disease."

April 26, 2005, Invited Speaker, Biogen Idek, Cambridge, MA, "Transgenic Approaches to Target Validation in Lung Disease."

May 4, 2005, Invited Speaker, Medical Grand Rounds, Weill Medical College of Cornell University, New York, NY, "New Concepts in the Pathogenesis of COPD."

May 21, 2005, Invited Speaker, Alza Corporation, during Annual Meeting of the American Thoracic Society, San Diego, CA, "Cathepsin-Mediated Apoptosis in COPD."

May 22, 2005, Featured Speaker, Symposium entitled "COPD Pathogenesis: From Genes to Phenotype," Annual Meeting of the American Thoracic Society, San Diego, CA, "New Concepts in COPD Pathogenesis."

May 22, 2005, Invited Speaker, Celgene Corporation, Discovery Group, "Transgenic Modeling of TGF- $\beta_1$  in the Lung."

May 23, 2005, Invited Speaker, Symposium entitled "Remodeling the Systemic Vasculature in the Lung," Annual Meeting of the American Thoracic Society, San Diego, CA, "VEGF in the Pathogenesis of Asthma and Th2 Inflammation."

May 23, 2005, Invited Speaker, Symposium entitled "Heterogeneity of Asthma and COPD: From Theory to Clinical Practice," Annual Meeting of the American Thoracic Society, San Diego, CA, "Pathogenesis of Asthma and COPD: Similarities and Differences."

May 24, 2005, Featured Speaker, Symposium entitled "Extracellular Matrix Regulators During Pathophysiological Lung Remodeling: Implications for Therapy," Annual Meeting of the American Thoracic Society, San Diego, CA, "From Human to Animal Models and Back."

June 1, 2005, Invited Speaker, COPD Symposium Honoring Past Chairs of the Department of Medicine, National Jewish Medical Center and Research Center, Denver, CO, "Gamma Interferon and Emphysema."

June 9, 2005, Invited Speaker, 5<sup>th</sup> Brazilian Congress of Asthma entitled "Hygiene and Asthma, Pros and Cons," Rio de Janeiro, Brazil, "Chitinases in Asthma and Th2 Inflammation."

June 11, 2005, Invited Speaker, Fifth Brazilian Congress of Asthma, Rio de Janeiro, Brazil, "New Concepts in the Pathogenesis of COPD."

June 12, 2005, Invited Speaker, Third Sao Paulo Research Conference, Sao Paulo, Brazil, "The Chitinase-IL-13 Connection."

June 16, 2005, Invited Speaker, Thomas L. Petty Aspen Lung Conference entitled "Pathobiology of COPD," Aspen, CO, State-of-the-Art Talk, "The COPD Asthma Spectrum."

July 21, 2005, Invited Speaker, Centocor Inc., Malvern, PA, "IL-13 in the Pathogenesis of Asthma: Mouse Models and Human Biomarkers."

July 27, 2005, Invited Speaker, Summer Lecture Series, Section of Pulmonary and Critical Care Medicine, Yale University School of Medicine, New Haven, CT, "New Insights into the Pathogenesis of COPD."

August 3, 2005, Invited Speaker, Abgenix Inc. San Francisco, CA. "IL-13 in the Pathogenesis of Asthma: Mouse Models and Human Biomarkers."

August 9, 2005, Invited Speaker, Joint Yale-Cambridge Conference on Vascular Biology, Yale University, New Haven, CT, talk entitled "Vascular Endothelial Growth Factor (VEGF) in the Pathogenesis of Asthma and Th2 Inflammation."

August 10, 2005, Invited Speaker, GlaxoSmithKline, King of Prussia, PA, "Transgenic Modeling of COPD."

August 11, 2005, Invited Speaker, CGI Pharmaceuticals, Inc., Branford, CT, "Transgenic Modeling of Inflammation and Remodeling in the Lung."

September 14, 2005, Invited Speaker, Medical Grand Rounds, Mayo Clinic, Rochester, MN, "New Concepts in the Pathogenesis of COPD."

October 20, 2005, Invited Lecturer, Biology Department, Clark University, Worcester, MA, "Transgenic Modeling of IL-13 in Asthma."

October 27, 2005, Invited Speaker, Pathology 690 Graduate Course, Boyer Center for Molecular Medicine, Yale Medical School, New Haven, CT, "New Concepts in the Pathogenesis of Asthma."

November 5, 2005, Invited Lecturer, Interdepartmental Program in Vascular Biology and Transplantation and the Yale-New Haven Transplantation Center, Yale University School of Medicine, New Haven, CT, "VEGF in Asthma and Th2 Inflammation."

November 17, 2005, Invited Participant, National Institutes of Health/NHGRI Conference on the Pulmonary Fibrosis of Hermansky-Pudlak Syndrome, Bethesda, MD, "Transgenic Modeling of TGF- $\beta$  in the Lung."

November 18, 2005, Invited Lecturer, Harold and Marilyn Menkes Memorial Lecture, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, "Mechanisms of Alveolar Destruction in COPD."

November 22, 2005, Invited Lecturer, Roche Pharmaceuticals, Palo Alto, CA, "Transgenic Modeling of Alveolar Destruction in the Lung."

November 29, 2005, Invited Lecturer, Sepracor, Marlborough, MA, "Transgenic Modeling of IL-13 in Asthma."

December 22, 2005, Invited Speaker, Pathology Grand Rounds, Yale University School of Medicine, New Haven, CT, "Transgenic Modeling of IL-13 in Asthma and Th2 Inflammation."

January 19, 2006, Transatlantic Airway Conference, Lucerne, Switzerland, "Transgenic Modeling of TGF- $\beta$  in the Lung: Role of Apoptosis in Emphysema and Fibrosis."

February 8, 2006, Program in Immunology Seminar Series, Harvard Medical School, Boston, MA, "Transgenic Modeling of IL-13 in Asthma."

February 21, 2006, National Jewish Medical and Research Center, Denver, CO, "Transgenic Modeling in Asthma and Th2 Inflammation."

February 24, 2006, Medical Grand Rounds, Tufts-New England Medical Center, Boston, MA, "New Concepts in the Pathogenesis of COPD."

March 4, 2006, Invited Lectureship, State-of-the-Art-Session, Annual Meeting of the American Academy of Allergy, Asthma and Immunology, Miami Beach, FL, "Chitinases and Chitin in Pulmonary Inflammation."

March 18, 2006, Invited Speaker, The Royal Melbourne Hospital and The Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia, "Transgenic Approaches to IL-13, TGF- $\beta_1$  and Chitinases in Th2 Inflammation and Asthma."

March 26, 2006, Invited Keynote Speaker and Plenary Lecturer, Annual Scientific Meeting of The Thoracic Society of Australia and New Zealand and the Australian and New Zealand Society of Respiratory Science, Canberra, Australia, "Transgenic Modeling of IL-13 and Chitinases in Asthma and Th2 Inflammation."

March 27, 2006, Invited Speaker, Australian National University, The John Curtin School of Medical Research, Canberra, Australia, "Transgenic Modeling of IL-13 and Chitinases in Asthma and Th2 Inflammation."

April 12, 2006, Invited Speaker, Pediatric Grand Rounds, Yale University School of Medicine, "Transgenic Modeling of IL-13 in Asthma and Th2 Inflammation."

May 8, 2006, Invited Speaker, Yale Medical Conference, William Backus Hospital, Norwich, CT, "COPD: New Insights and Mechanisms."

May 19, 2006, Invited Speaker, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, San Diego, CA, "Transgenic Investigation of Inflammation and Remodeling in Asthma."

May 19, 2006, Invited Speaker, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, San Diego, CA, "Critical Role of Remodeling in Emphysema."

May 21, 2006, Invited Participant/Co-Facilitator of Session/Thematic Poster Session, Annual Meeting of the American Thoracic Society, San Diego, CA, "Growth Factors, Cell Matrix Interactions and Basic Mechanisms of Tissue Fibrosis and Remodeling."

May 24, 2006, Invited Speaker, Scientific Symposium, Annual Meeting of the American Thoracic Society, San Diego, CA, "Mechanisms of Airway and Parenchymal Remodeling in the Lung."

June 29, 2006, Invited Speaker, NIH/NHLBI Strategic Planning, Division of Lung Diseases Level 1 Working Group on Theme #1: Development of Early Origin of Disease, "Apoptosis and Cell Death in the Lung."

July 10, 2006, Invited Speaker, NIH/NHLBI, Division of Lung Diseases Strategic Planning Working Group. Theme #2: Integrative Approaches to Pathogenetic Research on Lung Diseases and Sleep Disorders, "Apoptosis in Animal Models and Relation to Human Disease."

August 7, 2006, Invited Speaker, Models & Technologies for Defining Phenotype Course, Wake Forest University Health Sciences Center, Winston-Salem, NC, "Transgenic Approaches to Gene Function and Effector Pathway Elucidation."

August 8, 2006, Invited Keynote Speaker, Ninth International Workshop on Scleroderma Research, Boston University, Boston, MA, "Transgenic Investigations of Th2 and TGF- $\beta_1$ -Induced Tissue Fibrosis."

October 5, 2006, Keynote Address, University of Texas at Houston Annual Research Retreat, "Transgenic Modeling of IL-13 and Asthma in the Lung."

December 5, 2006, Invited Speaker, Pathology 690 Graduate Course, Boyer Center for Molecular Medicine, Yale Medical School, New Haven, CT, "New Concepts in the Pathogenesis of Asthma."

February 4, 2007, Invited Speaker, Tenth Annual Meakins-Christie Workshop entitled "Asthma and COPD", McGill University, Quebec, Canada, "BRP-39/HcGP-39 in Asthma and Murine Th2 Inflammation."



February 12, 2007, Invited Speaker, Genentech, San Francisco, CA, "Transgenic Modeling of IL-13 in the Lung."

March 11, 2007, Keystone Symposium: Molecular Mechanisms of Fibrosis: From Bench to Bedside, Tahoe City, CA, "The Role of Chitinases and Other IL-13-Regulated Genes in Lung Remodeling and Fibrosis."

March 22, 2007, Invited Speaker, Annual Endowed Lectureship, the Samuel Frumkin Honor Lecture (Medical Grand Rounds), Norwalk Hospital, Norwalk, CT, "New Insights Into the Pathogenesis of Asthma: From Mouse to Man and Back Again."

March 28, 2007, Invited Speaker, Medical Grand Rounds (the McClement Lecture), New York University Medical Center, New York, NY, "New Concepts in the Pathogenesis of COPD."

March 30, 2007, Invited Speaker, Forty-Sixth Annual Swineford Conference, University of Virginia, Charlottesville, VA, "Chitinases and Chitinase-Like Proteins in Asthma and Th2 Inflammation."

May 4, 2007, Invited Speaker, Enzon Pharmaceuticals, Piscataway, NJ, "Transgenic Modeling of IL-13 and Adenosine Metabolism in Asthma."

May 8, 2007, Invited Speaker, Twentieth Annual Lee E. Farr, M.D. Lectureship, Yale University School of Medicine Student Research Day, "New Insights Into the Pathogenesis of Asthma: From Mouse to Man and Back Again."

May 19, 2007, Invited Speaker, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, San Francisco, CA, "Transgenic Investigations of Inflammation and Remodeling in Asthma."

May 21, 2007, Invited Speaker, Scientific Symposium, Annual Meeting of the American Thoracic Society, San Francisco, CA, "Modeling COPD in Animals."

May 22, 2007, Invited Speaker and Co-Chair, Sandler Asthma Research Symposium, Annual Meeting of the American Thoracic Society, San Francisco, CA, "Introduction to the Sandler Foundation."

May 23, 2007, Invited Speaker, ATS Scientific Symposium, Annual Meeting of the American Thoracic Society, San Francisco, CA, "Initiation and Effector Mechanisms in Lung Th2 Immunity."

June 20, 2007, Invited Speaker, Medical Grand Rounds, Peking Union Medical College Hospital, Beijing, China, "New Insights Into the Pathogenesis of Asthma: From Mouse to Man and Back Again."

June 22, 2007, Special Lecture, International Symposium of Hanyang University College of Medicine, Seoul, Korea, "New Concepts in the Pathogenesis of COPD."

June 23, 2007, Invited Speaker, Postgraduate Asthma School, Incheon, South Korea, "New Discoveries in the Pathogenesis of Asthma."

August 14, 2007, Invited Speaker, Immunobiology Chalk Talk, Yale University School of Medicine, "Transgenic Modeling of IL-13 and Chitinase-Like Molecules in the Lung."

August 31, 2007, Invited Speaker, Medical Grand Rounds, Greenwich Hospital, Greenwich, CT, "New Concepts in the Pathogenesis of COPD."

September 24, 2007, Invited Speaker, Cambridge-Yale Cardiovascular Research Program, Yale University, New Haven, CT, "Regulation of VEGF Effects in the Lung."

- September 29, 2007, Invited Speaker, Promedior Scientific Advisory Board Meeting, Newport, RI, "Lung Fibrosis Studies."
- October 11, 2007, Invited Speaker, Fifth Annual Stanley L. Cohen, M.D. Lecture / Medical Grand Rounds, Bridgeport Hospital, Bridgeport, CT, "New Concepts in the Pathogenesis of COPD."
- October 25, 2007, Invited Keynote Speaker, Airway Inflammation and Immunology Group, University of Calgary, "New Insights into the Pathogenesis of Asthma: From Mouse to Man and Back Again."
- October 30, 2007, Invited Speaker, The twenty-first Annual Robert F. Johnston, M.D. Memorial Lecture, Drexel University College of Medicine, Philadelphia, PA, "New Concepts in Th2 Inflammation: From Mice to Man and Back Again."
- October 31, 2007, Invited Speaker, Medical Grand Rounds, Drexel University College of Medicine, Philadelphia, PA, "New Concepts in COPD."
- November 15, 2007, Invited Speaker, Pathology 690 Graduate Course, Boyer Center for Molecular Medicine, Yale Medical School, New Haven, CT, "New Concepts in Asthma Pathogenesis: From Mice to Man and Back Again."
- January 17, 2008, Invited Speaker, Medical Grand Rounds, University of Massachusetts Medical School, "New Concepts in the Pathogenesis of Asthma: From Mouse to Man and Back Again."
- February 1, 2008, Invited Speaker, University of California, Los Angeles, CA, Peer Discussion Group, "Chitinases in Th2 Inflammation."
- February 1, 2008, Invited Speaker, University of Southern California, Los Angeles, CA, Peer Discussion Group, "Chitinases in Chitinase-Like Protein in Asthma."
- March 15, 2008, Invited Speaker, European Respiratory Society Conference on Lung Injury, Repair and Remodeling, Estoril, Portugal, "Chitinases and Chitinase-Like Protein in Asthma."
- April 18, 2008, Visiting Professor, Medical Grand Rounds, Duke University Medical Center, Durham, North Carolina, "New Concepts in Asthma Pathogenesis: From Mouse to Man and Back Again."
- April 18, 2008, Visiting Professor, Airway Biology Forum, Peer Discussion Group, Duke University Medical Center, Durham, North Carolina, "Transgenic modeling of IL-13, Chitinases and Chitinase-like Molecules in the Lung."
- May 19, 2008, Invited Co-Chair and Speaker, Mini-Symposium, Annual Meeting of the American Thoracic Society, Toronto, CA, "Discovery of the Chitins in Allergic Disease."
- September 11, 2008, Invited Keynote Speaker, Sixth Annual Advances in Inflammation Research Symposium, Rhode Island Hospital / Brown University, Providence, RI, "Chitinases and Chitinase-Like Proteins in Asthma and Lung Inflammation."
- September 18, 2008, Invited Speaker, Virginia Community University, Richmond, VA, "Transgenic Modeling of IL-13, Chitinase and Chitinase-like Proteins in Th2 Inflammation."
- September 19, 2008, Invited Speaker, Medical Grand Rounds, Medical College of Virginia, Rheumatology, Allergy and Immunology Department, Richmond, VA, "New Concepts in the Pathogenesis of Asthma."

September 29, 2008, Invited Speaker, Co-Chair and Discussion Leader, Fifteenth International Colloquium on Lung and Airway Fibrosis, Sunset Beach, NC, "Transgenic Modeling of TGF- $\beta$  in Injury and Repair."

December 2, 2008, Invited Speaker, Pathology 690 Graduate Course, Boyer Center for Molecular Medicine, Yale Medical School, New Haven, CT, "New Concepts in Asthma: From Mouse to Man and Back Again."

December 4, 2008, Invited Speaker, Medical Grand Rounds, Yale University School of Medicine, New Haven, CT, "New Concepts in Asthma: From Mouse to Man and Back Again."

January 23, 2009, Invited Speaker, Keystone Symposium on Allergy and Asthma, Keystone, CO, "Insights From Transgenic Models of Lung Fibrosis."

March 9, 2009, Invited Speaker, Cell Biology 601 Graduate Course, Edward S. Harkness Memorial Hall, Yale Medical School, New Haven, CT, "The Molecular and Cellular Basis of Human Disease."

May 5, 2009, Visiting Professor, Emory University, Division of Pulmonary, Allergy and Critical Care Medicine, Atlanta, GA, Department of Medicine Grand Rounds, "New Concepts in the Pathogenesis of Asthma: From Mouse to Man and Back Again."

May 5, 2009, Visiting Professor, Emory University, Division of Pulmonary, Allergy and Critical Care Medicine, Atlanta, GA, Pulmonary Grand Rounds, "Transgenic modeling of IL-13 and Chitinases in Th2 Inflammation."

May 16, 2009, Invited Speaker, Postgraduate Course presented at the Annual Meeting of the American Thoracic Society, San Diego, CA, "Chitinase-Like Proteins in Lung Injury and Repair."

May 17, 2009, Co-Chair of Mini-Symposium, Annual Meeting of the American Thoracic Society, San Diego, CA, "Insights in COPD Pathogenesis."

May 18, 2009, Lead Facilitator of Thematic Poster Session, Annual Meeting of the American Thoracic Society, San Diego, CA, "COPD Pathogenesis."

August 25, 2009, Invited Speaker, Regulus Therapeutics, Carlsbad, CA, "Asthma, COPD, Tissue Remodeling and Fibrosis."

September 3, 2009, Invited Co-Chair and Speaker, Department of Health and Human Services, NIH / NHLBI Workshop: Getting From Genes to Function in Lung Disease, NIH Campus, Bethesda, MD, "Manipulating Mouse Models to Create Human Lung Diseases."

September 12, 2009, Invited Speaker, Yale / Cambridge Collaboration Meeting, Yale University Campus, New Haven, CT, "VEGF, microRNA and Asthma."

September 24, 2009, Invited Speaker, Medical Grand Rounds, 13th Annual Thomas J. Godar Pulmonary and Critical Care Symposium, Saint Francis Hospital and Medical Center, Hartford, CT, "COPD: From Bench to Bedside."

October 19, 2009, Invited Speaker, Seminars in Biomedical Research, Department of Internal Medicine, Yale University, New Haven, CT, "Chitinases and Chitinase-Like Proteins in Human Disease."

November 7, 2009, Invited Participant, Ninth Annual Retreat of Vascular Biology and Therapeutics Program held in conjunction with Cardiovascular Medicine, Yale University School of Medicine, Session Chair, "Mechanisms of Inflammation."

November 10, 2009, Invited Speaker, Professor Rounds for Department of Internal Medicine residents, Yale-New Haven Hospital, "From Mouse to Man, An Alternative Approach to Biomedical Research."

November 19, 2009, Invited Speaker, Pathology 690 Graduate Course, Boyer Center for Molecular Medicine, Yale University School of Medicine, New Haven, CT, "Asthma: Mechanisms of Disease."

March 12, 2010, Invited Speaker, Department of Medicine Chairs and Deans Meeting, Yale University School of Medicine, New Haven, CT, "Update on the Department of Medicine."

March 26, 2010, Invited Speaker, 201<sup>st</sup> Meeting of the Interurban Clinical Club, Advances in Medical Research, Yale University School of Medicine, New Haven, CT, "IL-13 and Chitinase-like Proteins in Human Disease."

April 14, 2010, CT Allergy Society, New Haven, CT, "New Concepts in the Pathogenesis of COPD."

April 20, 2010, Herbert Y. and Anne L. Reynolds Lecture, Medical Grand Rounds, Penn State Milton S. Hershey Medical Center, Hershey PA, "New Concepts in Asthma Pathogenesis: From Mice to Man and Back Again."

April 28-30, 2010, Annual Physician-in-Chief Pro Tempore, Department of Medicine, Brigham and Women's Hospital, Boston, MA. Medical Grand Rounds, "New Concepts in the Pathogenesis of Asthma: From Mouse to Man and Back Again."

May 10, 2010, Invited Speaker, 97<sup>th</sup> Annual Immunology Meeting, Baltimore, MD, "Chitinases and Chitinase-like Proteins in Lung Injury and Inflammation."

July 22, 2010, Invited Speaker, NIH / NHLBI Biomedicine Lecture Series, Bethesda, MD, "Chitinases and Chitinase-like Proteins in Lung Injury and Inflammation."

## **BIBLIOGRAPHY**

### **Original Articles**

1. Elias, J.A. A systemic reaction to radiocontrast media during hysterosalpingography. **J. Allergy Clin. Immunol.** 66:242-243, 1980.
2. Elias, J.A., Levinson, A.I. Hypersensitivity reactions to the ethylenediamine in aminophylline. **Am. Rev. Respir. Dis.** 123:550-552, 1981.
3. Elias, J.A., Rossman, M.D., Daniele, R.P. Inhibition of human lung fibroblast growth by mononuclear cells. **Am. Rev. Respir. Dis.** 125:701-705, 1982.
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### **Editorials, Reviews, Chapters and Commentaries**

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