History of the Subboard in Pediatric Pulmonology

Lynn M. Taussig, M.D.

Special Advisor to the Provost, University of Denver

Professor of Pediatrics, University of Colorado Health Sciences Center

President/CEO (retired), National Jewish Medical & Research Center

There has been a long and enduring interest in diseases of the respiratory system, and over the past 100+ years, concern for respiratory disorders of children steadily increased. Holt (1) in the first edition of his textbook, "The Diseases of Infancy and Childhood", published in 1897, had extensive descriptions of respiratory disorders such as asthma and bronchitis. Increases in tuberculosis, other infectious diseases of the respiratory tract, asthma and neonatal lung disorders, together with the description of cystic fibrosis in 1937 (2) and 1938 (3), led not only to heightened interest in these disorders, but they consumed a progressively larger percentage of the clinical time of physicians caring for pediatric patients. From this, the discipline of pediatric pulmonology began to emerge; its "developmental history in North America" has been eloquently reviewed by Victor Chernick and Robert B. Mellins (4). It is interesting to note, however, that, in the book edited by Nichols, Ballabriga, and Kretchmer, "History of Pediatrics—1850-1950" (5), no chapter on pulmonary or respiratory diseases of children occurs and, in fact, asthma is not even mentioned. In Cone's "History of American Pediatrics", published in 1979 (6), there is no mention of pediatric pulmonology, although other pediatric disciplines are

discussed, including allergy, and the Section on Diseases of the Chest in the American Academy of Pediatrics had been established in 1957.

As the body of knowledge relating to the respiratory system steadily increased it soon became readily apparent that advancements in the prevention, diagnosis, and treatment of these various disorders would require more focused and dedicated training, and more extensive research—that is, the creation of a discipline concentrating on respiratory disorders of children to ensure that the best care was being provided to children with respiratory illnesses. The development of a number of organizations and the publication of various reports (7-9) (Table 1), all relating to pediatric respiratory disorders, continued the thrust towards the creation of a defined discipline of pediatric pulmonology. Of special importance in this regard was the publication in 1967 by Edwin L. Kendig, Jr. of the first textbook focusing exclusively on pediatric pulmonology (10) and "The Lung and its Disorders in the Newborn Infant" in 1964 by Mary Ellen Avery (11).

In 1972, the majority of pediatric departments in schools of medicine lacked a trained pulmonologist and there were fewer than 12 training programs in the discipline. When the author completed his fellowship training at McGill University/Montreal Children's Hospital/Meakins-Christie Laboratories in 1974 there were fewer than five job openings available in medical schools in the United States. Many of the early pediatric pulmonologists trained with the "giants" of adult pulmonology—Bates, Christie, Cherniack, Comrow, Fishman, Forester, Riley, Permutt, Macklem, Mead, and Whittenberger, but there was a relatively small group of pediatric pulmonologists who, in

the late '60s and early to mid '70s, began to shape the discipline and train an ever increasing number of specialists. These included Waring, Chernick, Mellins, Wohl, Doershuk, Boat, Eigen, Lemen, and, perhaps, the author—with apologies to names left out.

The need for a certifying examination in pediatric pulmonology was recognized early by Dr. Edwin L. Kendig, Jr. who, in 1973 (Appendix A) approached the American Board of Pediatrics (ABP) regarding the possibility of establishing a subboard "for certification of pulmonary disease in children". It is unclear what happened subsequent to that letter, but no formal application was submitted until October, 1980 when a committee chaired by the author and including Richard Lemen, Robert B. Mellins, Carl Doershuk, and Arnold Platzker submitted an application for board certification in pediatric pulmonology on behalf of the Chest Section of the American Academy of Pediatrics, the Scientific Assembly on Pediatrics of the American Thoracic Society, and the Pediatric Chest Council (Appendix B); the proposal recommended a two year training program with one year in clinical medicine and one year in research. The application emphasized: (1), the large number (more than 12 million) of children under 17 years of age with a chronic respiratory disease; (2) the need by pediatric departments and medical schools for well trained pediatric pulmonologists as determined by a survey; (3), that there was only 25% of the required number of well trained pediatric pulmonary physicians currently available to provide care for the population of children with acute and chronic respiratory disorders; and (4) that standardization of education given to Fellows would greatly enhance the qualify of care.

There were a number of other reasons for pursuing a subboard. The government was beginning to tell training programs that they would not be officially recognized in the future unless the directors of the programs were board certified in that subspecialty. There was also concern that the time was approaching when subspecialists would not be able to bill as subspecialists without being board certified in their particular area.

One year later (Appendix C) The ABP disapproved the establishment of a subboard for pediatric pulmonology. Three major reasons were given for this denial:

1. "The small number of candidates who would take the examination in this field would make the unit cost per examination development prohibitively expensive". In 1978, a survey was done to determine the number of individuals who considered themselves pediatric pulmonologists and their interest in a subspecialty board examination. Questionnaires were sent to members of: the Scientific Assembly on Pediatrics of the American Thoracic Society; the Section on Diseases of the Chest of the American Academy of Pediatrics; the Section on Cardiopulmonary Disease in Children of the American College of Chest Physicians; and Cystic Fibrosis Centers. Of the 489 questionnaires mailed, 282 (57.7%) were returned; of the respondents, 111 (39.4%) considered themselves pediatric pulmonologists. Two-thirds of this latter group desired a board exam; three fourths said they would take an exam if given; and the vast majority were opposed to combining the exam with the adult pulmonary or pediatric

allergy/immunology exams. Based on the responses to the survey and a time lag between the survey and the submission of the application, it was predicted that approximately 100 people would take the first certifying exam. In addition, there were currently 143 fellowship positions available in pediatric pulmonology and it was estimated that 40-50 people complete training in this discipline every year.

2. "The evidence presented suggested that pediatric pulmonology would overlap a variety of other disciplines, notably cardiology, neonatology, anesthesiology, critical care medicine, allergy, and existing programs in cystic fibrosis and chronic pulmonary diseases. It does not seem reasonable to develop a subspecialty board that overlaps so many areas of knowledge that already have existing boards of subboards." In reality, there were no boards in cystic fibrosis, critical care medicine, or chronic pulmonary diseases. Certainly, patients with cystic fibrosis, interstitial lung diseases, severe asthma, etc. were not being cared for by cardiologists, neonatologists, or anesthesiologists. At this time, pediatric pulmonologists were providing a significant portion of care in the pediatric intensive care unit. And it was the "existing programs in cystic fibrosis and chronic pulmonary diseases" which required more formalized and extensive training to enhance the quality of care being provided to these children as well as increasing research into these disorders. Thus, this second reason for denial was, in fact, a rationale for a subboard!

3. "The information presented by our meeting in Seattle indicated that there were a limited number of acceptable training programs throughout the country i.e., 12 to 15 at the most." As highlighted in the application, there were 38 training programs at that time in the United States at listed in The Journal of Pediatrics in September 1981. This compared to 46 in pediatric cardiology, and 45 training programs in allergy (which combined pediatric and adult training). Pediatric pulmonary training programs were listed as early as 1970 in the American Review of Respiratory Diseases.

The denial was appealed to no avail (Appendix D). In June of 1982, Dr. Robert C. Brownlee, M.D., Executive Secretary of The American Board of Pediatrics, Inc., offered the opportunity for a reapplication for a subboard in Pediatric Pulmonology (Appendix E).

A process was initiated for a reapplication. A committee was formed, representing The American Thoracic Society and The American Academy of Pediatrics (Table 2). A reapplication was submitted in 1983 (Appendix F). The application specifically addressed the issues underlying the initial disapproval of the request for a subboard in 1981 and highlighted the growth of the discipline as reflected by the number of pediatric pulmonary sections or divisions in departments of pediatrics (75% of departments had such units) and the more than 50 pediatric pulmonary training programs in North America. The application also emphasized the belief that the certified physicians would be based in large medical centers and medical schools and would not be in private

practice, competing with private-practicing pediatricians. In reality, over the subsequent years, many pediatric pulmonologists are in the private sector. At the urging of Robert Mellins (Appendix G) and others, the new application required three years of fellowship training with at least 16 months of research experience. This would be the first subboard to require such an extensive period of time in research. The application offered flexibility in eligibility criteria for the taking of the initial board examinations, allowing individuals who did not have formal training in pediatric pulmonology, but who had spent "more than 50% of their full-time professional activities in pediatric pulmonology" (or a combination of specialty training and time spent in providing pediatric pulmonary care) to take the exams (Appendix H).

Although there was strong support for the application from other boards such as The American Board of Internal Medicine, The American Board of Neurological Surgery, The American Board of Surgery, advocacy was not uniform. The American Board of Allergy and Immunology and the Section on Allergy and Immunology of the American Academy of Pediatrics strongly opposed the creation of a subboard in pediatric pulmonology (Appendices I and J). The author of this chapter refuses to speculate on the true motives behind this opposition!

Additional concern was expressed concerning the interrelationship between the proposed subboard in pediatric pulmonology and the possibility of a subboard in pediatric critical care medicine, the application for which was beginning to be developed. The suggestion was made that the subboard in pediatric pulmonology should await the submission of an

application for certification in critical care medicine; it did not. Finally, a number of leading pediatric pulmonologists (who will remain nameless) were openly, and at times fervently, opposed to the creation of a subboard believing that subboards are "restrictive", do not increase the quality of fellows coming out of training programs, and do not "foster creativity". These individuals were significantly in the minority.

On March 30/31 of 1984, ABP approved the creation of a subboard in pediatric pulmonology. The ABP then requested that the American Board of Medical Specialties (ABMS) approve this new subboard (Appendix K) which it did on September 20, 1984.

The first subspecialty committee on pediatric pulmonology for the American Board of Pediatrics was formed in 1984 with John G. Brooks, M.D. as chair (Table 3). This committee was nominated by a number of societies and organizations (Table 4) and was charged with developing the questions for the first exam. But how do we certify the members of this committee? Should they be grandfathered? The members of the committee agreed that they should not be grandfathered and that they needed to take an exam. The committee members subsequently took an exam consisting of questions from internal medicine's pulmonology exam as well as questions the committee had initially developed without extensive review (Appendix L). Fortunately there were very few questions on emphysema and pulmonary emboli—although, today, pediatric pulmonologists certainly need to know more about these conditions. This initial certifying exam was taken in the summer of 1985 and all passed (Table 3) (Appendix M). The first regular examination was given on July 18, 1986. 237 individuals took this

initial exam; 150 (63.3%) of the group passed. To date, 1,176 individuals have taken the exam and 821 (69.8%) pediatric pulmonologists have been certified. Recertification is required every seven years and exams are given every two years.

The Chairs and Members of the Subboard of Pediatric Pulmonology are shown in Tables 5 and 6. A summary of the history of the establishment of the subboard of pediatric pulmonology is shown in Table 7.

Accreditation of training programs began in 1990; current program requirements can be found at www.acgme.org.

October, 2007

Table 1

Table 1. Early Influential Organizations, Publications and Events		
Chest Section of the American Academy of Pediatrics established.		
Cystic Fibrosis Centers formed by Cystic Fibrosis Foundation.		
Avery's "The Lung and its Disorders in the Newborn Infant" published.		
Kendig's "Disorder of the Respiratory Tract in Children" published.		
Pediatric pulmonary centers established (U.S. Public Health Service).		
Scientific Assembly on Pediatrics established in the American Thoracic		
Society (ATS).		
First listing of pediatric pulmonary training programs in Am Rev Respir		
Dis.		
National Heart, Lung, and Blood Institute, Division of Lung Diseases		
begins support of pediatric pulmonology as district program area.		
Pediatric Lung Committee of the American Lung Association (ALA)		
formed.		
Editorial: The Academic Pediatric Pulmonary Division (9).		
Report of the Task Force to Establish Guidelines for Pediatric		
Pulmonology Training (10).		
Report of the Task Force on Scope and Professional Manpower Needs in		
Pediatric Respiratory Disease (11).		
Pediatric pulmonologist elected president of the ATS (R.B. Mellins).		
Pediatric pulmonologist elected president of the ALA (E. Sewell).		

(Modified after Table 4 in reference 6)

References

- 1. Holt, L.E.: The Diseases of Infancy and Childhood. D. Appleton and Co., New York, 1897.
- 2. Fanconi G, Euhlinger E, Knauer C. Das Coeliaksyndrom bei angeborener zystischer pancreasfibromatose und bronchiektasien. Wien Med Wochnschr 86:753-756, 1936.
- 3. Anderson D.H. Cystic fibrosis of the pancreas and its relation to celiac disease: a clinical and pathologic study. Am J Dis Child 56:344-399, 1938.
- 4. Chernick, V. and Mellins, R.B. Pediatric pulmonology: a developmental history in North America. Pediatr. Res. 55:514-520, 2004.
- 5. Nichols, B.L., Ballabriga, A., and Kretchmer, N. (eds.): History of Pediatrics: 1850-1950. Nestle Nutrition Workshop Series, Vol. 22, Raven Press, New York, 1991.
- 6. Cone, Jr., T.E.: History of American Pediatrics, Little, Brown and Co., Boston, 1979.
- 7. The Academic Pediatric Pulmonary Division. Editorial. ATS Ad Hoc Advisory
 Committee on Pediatric Pulmonary Programs and the Task Force to Establish
 Guidelines in Pediatric Pulmonary Training, Chest Section, American Academy of
 Pediatrics. Am. Rev. Resp. Dis. 114:1-4, 1976.
- 8. Report of the Task Force on Scope and Professional Manpower needs in Pediatric Respiratory Disease. Section on Diseases of the Chest, American Academy of Pediatrics. Pediatrics 62:254-255, 1978.
- Report of the Task Force to Establish Guidelines for Pediatric Pulmonology Training.
 Section on Diseases of the Chest, American Academy of Pediatrics. Pediatrics
 62:256-257, 1978.
- 10. Kendig E.L. Disorders of the Respiratory Tract in Children. WB Saunders, Philadelphia, 1967.
- 11. Avery M.E. The Lung and its Disorders in the Newborn Infants. WB Saunders, Philadelphia, 1964.

Joint Committee of the
American Thoracic Society
and the
American Academy of Pediatrics

American Thoracic Society

Howard Eigen Robert Mellins Daniel Shannon Lynn Taussig

American Academy of Pediatrics

John Brooks
Richard Lemen
Daniel Seilheimer
William Waring

First Subspecialty Committee of Pediatric Pulmonology

The original members and medical editor of the Subspecialty Committee of Pediatric Pulmonology, all of whom were certified by taking the first examination in 1985.

Certificate

- John G. Brooks, M.D.
 University of Rochester
- Thomas F. Boat, M.D.University of North Carolina
- Howard Eigen, M.D.University of Indiana
- 4 Robert B. Mellins, M.D. Columbia University
- Daniel C. Shannon, M.D.Harvard University
- 6 Lynn M. Taussig, M.D.University of Arizona
- William W. Waring, M.D.Tulane University
- Victor Chernick, M.D. (Medical Editor)University of Manitoba
- J. Darrell Miller, M.D. was also a member of this initial committee as the ABP Liaison. Not being a pediatric pulmonologist, he did not take the exam.

NOMINATING SOCIETIES SUBBOARD OF PEDIATRIC PULMONOLOGY

Association of Medical School Pediatric Department Chairmen

American Pediatric Society

Society for Pediatric Research

Section on Pediatric Pulmonology, American Academy of Pediatrics

Scientific Assembly on Pediatrics, American Thoracic Society

Table. Brief history of the sub-board of pediatric pulmonology

1973	Letter from E.L. Kendig to F. Howell Wright, President, ABP.
1980	First formal application to ABP to establish sub-board of pediatric
	pulmonology.
1981	Denial of initial application.
1981	Joint committee of ATS and AAP formed to continue effort.
1983	Resubmission of application for a sub-board.
1984	ABP approves sub-board (March 30/31, Charleston, S.C.).
1984	American Board of Medical Specialties approves subboard specialty
	(September 20).
1984	First meeting of Subspecialty Committee of pediatric pulmonology of
	ABP.
1985	Initial Subspecialty Committee of Pediatric Pulmonology takes certifying
	examination (July).
1986	First regular examination.
1990	Initiation of accreditation of training programs

(Modified after Table 5 of reference 6)

AAP—American Academy of Pediatrics

ABP—American Board of Pediatrics

ATS—American Thoracic Society

Table 5

PEDIATRIC PULMONOLOGY SUBBOARD CHAIRS

1984 – 1987: John Brooks

1987 – 1990: Howard Eigen

1991 – 1992: Gary Larsen

1993 – 1994: Hugh O'Brodovich

1995 – 1996: Gerald Loughlin

1997 – 1998: Margaret Leigh

1999 – 2000: Robert Wilmott

2001 - 2002: Sally Ward

2003 – 2004: Pamela Zeitlin

2005 - 2006: Julian Allen

2007 - 2008: Thomas Keens

SUBBOARD OF PEDIATRIC PULMONOLOGY

Membership

Julian L. Allen	2001 - 2006
Thomas F. Boat	1985 – 1986
John G. Brooks	1985 - 1990
John L. Carroll	2002 - 2007
Henry L. Dorkin	1993 - 1998
Howard Eigen	1985 - 1990
Leland F. Fan	2004 - 2009
Terence R. Flotte	2003 - 2008
Thomas A. Hazinski	1995 - 2000
Peter W. Hiatt	1998 - 2003
Thomas G. Keens	2003 - 2008
Carolyn M. Kercsmar	2007 - 2012
Michael W. Konstan	1997 - 2002
Gary L. Larsen	1987 - 1992
Margaret W. Leigh	1993 – 1998
Richard J. Lemen	1987 - 1990
Gerald M. Loughlin	1991 – 1996
John T. McBride	1991 – 1997*
Susanna A. McColley	2005 - 2010
Robert B. Mellins	1985 - 1988
J. Darrell Miller, ABP Liaison	1985 - 1989
Wayne J. Morgan	2005 - 2010
Shirley Murphy	1991 – 1992**
Hugh O'Brodovich	1989 – 1994
Gregory J. Redding	1989 – 1994
Daniel C. Shannon	1985 - 1990
Lynn M. Taussig	1985 - 1986
Robert S. Tepper	1999 - 2004
Marsha Moore Thompson	2001 - 2001**
Michael Wall	1991 – 1996
Sally L. Davidson Ward	1997 - 2002
William W. Waring	1985 - 1988
Robert W. Wilmott	1995 - 2000
Pamela L. Zeitlin	1999 - 2004

^{*} term extended ** resigned

Appendices A-M

January 15, 1973

F. Howell Wright, M.D.
American Board of Pediatrics Miseum of Science and Industry
57th Street & South Lake Shore Drive
Chicago, Illinois 60637

Dear Howell:

Some of us are interested in establishing a sub-Board for certification in pulmonary disease in children. How shall we go about it?

Many thanks for your help.

Sincerely yours,

Edwin L. Kendig, Jr., M.D.

Elk: jg



THE UNIVERSITY OF ARIZONA

HEALTH SCIENCES CENTER TUCSON, ARIZONA 85724

COLLEGE OF MEDICINE
DIVISION OF RESPIRATORY SCIENCES
AND DEPARTMENT OF PEDIATRICS

October 21, 1980

Robert C. Brownlee, M.D. Executive Secretary The American Board of Pediatrics, Inc. 136 E. Rosemary Street, Suite 402 Chapel Hill, NC 27514

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Dear Bob:

Enclosed please find our prelimination to the Board to certify pediatricians with special competence in I hope that this is not a too-detailed application, but I did want to present the pertinent objective and subjective information.

I should point out that this proposal is the result of the efforts of a subcommittee consisting of myself, Drs. Richard Lemen, Robert Mellins, Carl Doershuk and Arnold Platzker. In reality, this subcommittee reports to the Chest Section of the American Academy of Pediatrics, the Scientific Assembly on Pediatrics of the American Thoracic Society, and the Pediatric Chest Council.

I will be leaving on sabbatical at the end of November. If you need any additional information or if you wish for individuals to appear before the Board after that date, please contact Dr. Richard Lemen, Department of Pediatrics, Arizona Health Sciences Center, Tucson, Arizona 85724 - (602) 626-6754. The San Diego meeting in early December may be the preferable meeting, especially since it is close to Tucson, and I would suspect Dr. Lemen would be able to be present then.

Needless to say, I as well as all of the other members of the committee are most appreciative of your assistance.

Sincerely yours,

Lynn M. Taussig, M.D.
Associate Head, Department of Pediatrics
Associate Professor of Pediatrics
Director, Pediatric Pulmonary Section

The American Board of Pediatrics, Inc.

Founded in 1933

136 East Rosemary Street, Suite 402 Chapel Hill, North Carolina 27514 (919) 929-0461

Robert C. Brownlee, M.D. Executive Secretary



Harold Meyer, M.D. Associate Executive Secretary

Diane W. Butzin Director, Evaluation & Research

October 6, 1981

Richard J. Lemen, M.D. Associate Professor of Pediatrics Department of Pediatrics College of Medicine The University of Arizona Health Sciences Center Tucson, AZ 85724

Dear Dr. Lemen:

We regret to inform you that the American Board of Pediatrics, at its annual meeting in mid-September, voted not to approve the establishment of a Sub-Board of Pediatric Pulmonology.

The Board took the action for the following reasons:

- The small number of candidates who would take the examination in this field would make the unit cost for examination development prohibitively expensive.
- The evidence presented suggested that Pediatric Pulmonology would overlap a variety of other disciplines, notably Cardiology, Neonatology, Anesthesiology, Critical Care Medicine, Allergy, and existing programs in Cystic Fibrosis and Chronic Pulmonary Diseases. It did not seem reasonable to develop a subspecialty board that overlapped so many areas of knowledge that already had existing boards or sub-boards.
- The information presented by you at our meeting in Seattle indicated that there were a limited number of acceptable training programs throughout the country, i.e., 12 to 15

The Board noted that there existed several professional organizations within which those interested in Pediatric Pulmonology could meet their needs for intellectual and scientific stimulation. These

Richard J. Lemen, M.D. October 6, 1981 Page Two

organizations may also help in providing standards for education of fellows. These same organizations might also serve as a resource for public information about their members.

The Board wishes to express their appreciation to you and your colleagues for your efforts toward improving the health care of children. If at any time we or the Board can be of service to you, I hope that you will not hesitate to contact us.

Sincerely yours,

Donald L. Dunphy, M.D.

Chairman, Committee on Special

Requirements

Harold Meyer, M.D.

Associate Executive Secretary

HM:DLD:fl



ALL Sandy R. Tannotta, Executive Director

March 23, 1982

Joseph W. St. Geme, Jr., President-elect American Board of Pediatrics 136 East Rosemary Street, Suite 402 Chapel Hill, North Carolina 27514

Dear Dr. St. Geme:

The Chest Section of the American Academy of Pediatrics and the Scientific Assembly on Pediatrics of the American Thoracic Society, two groups that represent the majority of pediatric pulmonologists in the United States, have formed a joint committee to express concern about the rejection by the American Pulmonology.

This subspecialty is recognized by medical schools, practicing physicians and federal agencies. Pediatric Pulmonology has coalesced the fragmented care of children with respiratory disease into scientifically based, effective and essential subspecialty. Pediatric Pulmonology has an important, ever-enlarging efforts to advance our knowledge of the biological basis of respiratory function and the application of clinical physiology to diagnosis and care of the infant of our subspecialty.

Your <u>Commentary</u> in <u>Pediatrics</u> (November, 1981) calls for all pediatricians to improve their self-images and to function as well trained consultative physicians. We applaud this and answer the call. Pediatric pulmon-ologists in an important area. However, the failure of the Board to recognize our discipline results in children being treated by pulmonary internists or those for all pediatricians. This is not in the best interest of American Pediatrics. System, only the more complex or severe respiratory problems (of which there are many) would generally require the expertise of the pediatric pulmonologist.

We are currently gathering additional documentation of the need for, and the potential impact of establishing pediatric pulmonary boards. We request from you suggestions regarding specific points to be addressed or facts to be assembled. We urge you to consider our forthcoming re-application with care

and concern for a growing discipline that enhances the care of children and the stature of Pediatrics in this country. We would welcome the opportunity to appear before the Board to provide additional information and to answer

Representing the American Thoracic Society,

Howard Eigen, M.D.

Associate Professor of Pediatrics Indiana University School of Medicine Director, Section of Pulmonology James Whitcomb Riley Hospital for Children Chairman, Scientific Assembly on Pediatrics American Thoracic Society

Robert Mellins, M.D. Professor of Pediatrics

Columbus University

Babies and Childrens Hospital

President-elect

American Thoracic Society

1 C. SK

Daniel Shannon, M.D. Associate Professor of Pediatrics Harvard Medical School Director, Pediatric Pulmonary Unit Massachusetts General Hospital

Lynn Taussig, M.D.

Professor and Associate Chairman, Department of Pediatrics

University of Arizona

Director, Pediatric Pulmonary Section

Arizona Health Sciences Center

Co-chairman, Ad-hoc Committee on Pediatric Pulmonary Boards American Thoracic Society

Representing American Academcy of Pediatrics,

Gol G Brook

John Brooks, M.D. Associate Professor of Pediatrics University of Rochester School of Medicine Chairman, Section of Diseases of the Chest American Academy of Pediatrics

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Richard Lemen, M.D. Associate Professor of Pediatrics, University of Arizona Pediatric Pulmonary Section Arizona Health Sciences Center Co-chairman, Ad-hoc Committee on Pediatric Pulmonary Boards American Thoracic Society

Daniel Seilheimer, M.D., F.A.A.P

Kelsey-Seybold Clinic, P.A.

Houston, Texas

Member, Section on Diseases of the Chest

American Thoracic Society

William Waring, M.D.

Professor of Pediatrics

Tulane University School of Medicine Director, Cystic Fibrosis Center

New Orleans Pediatric Pulmonary Center

The American Board of Pediatrics, Inc.

Robert C. Brownlee, M.D. Executive Secretary

> 136 East Rosemary Street, Suite 402 Chapel Hill, North Carolina 27514 (919) 929-0461

June 2, 1982

Lynn M. Taussig, M.D. Division of Respiratory Sciences Department of Pediatrics University of Arizona Health Sciences Center Tucson, AZ 85724

Dear Lynn:

I am writing as a follow-up of my letter of May 7, 1982. At its recent meeting the Board received the letter from your group with interest. The Board would be pleased to receive a re-application for consideration of a Sub-Board in Pediatric Pulmonology. In the event you decide to re-apply it would be helpful if you would address the specific issues raised in the letter from Drs. Dunphy and Meyer dated October 6, 1981. Any further information, new or expanded, from your original application would be helpful also.

We look forward to hearing from you.

Sincerely,

Robert C. Brownlee, M.D. Executive Secretary

RCB:ps

BOARD MEMBERS-1982: C.W. Daeschner, M.D., President; William S. Conkling, M.D., Vice-President; William W. Cleveland, M.D., Secretary-Treasurer; Joseph W. St. Geme, Jr., M.D., President-Elect; Frederic M. Blodgett, M.D.; Donal L. Dunphy, M.D.; Laurence Finberg, M.D.; Howard H. Nichols, M.D.; Thomas K. Oliver, Jr., M.D.; Carolyn F. Piel, M.D.; Lisbeth B. Schorr; Henry R. Shinefield, M.D.; Robert A. Ulstrom, M.D.

SUBSPECIALTY CHAIRMEN: Pediatric Cardiology—Welton M. Gersony, M.D.; Pediatric Hematology-Oncology—Joseph V. Simone, M.D.; Pediatric Nephrology—Adrian Spitzer, M.D.; Neonatal-Perinatal Medicine—Nicholas M. Nelson, M.D.; Pediatric Endocrinology—Alvin B. Hayles, M.D.



INDIANA UNIVERSITY

SCHOOL OF MEDICINE

RECEIVED MAY 1 8 1983

DEPARTMENT OF PEDIATRICS
Section of Pediatric Pulmonology
James Whitcomb Riley Hospital for Children Room 293
702 Barnhill Drive
Indiana University Medical Center
Indianapolis, Indiana 46223
(317) 264-7208

May 16, 1983

Robert C. Brownlee Executive Secretary The American Board of Pediatrics 136 East Rosemary Street, Suite 402 Chapel Hill, North Carolina 27514

Dear Dr. Brownlee:

The enclosed is the application for a subboard in Pediatric Pulmonology prepared by a joint committee of members of the Scientific Assembly of Pediatrics on the American Thoracic Society and the Section on Diseases of the Chest of the American Academy of Pediatrics.

The general goals of the proposed subboard are to meet optimally the anticipated need for manpower in the field, to define the training required of pediatric pulmonologists, and to produce a scholarly and committed pulmonary subspecialist who will be capable of advancing the state of knowledge through research and disseminating it through a long term committment to teaching.

The salient features of the application were distributed to the membership of both the Pediatric Assembly and the Chest Section to solicit their comments, and have been discussed at recent meetings of both organizations.

In response to the comments we received from the pediatric pulmonary community, we have included a second training option which we feel is an equally rigorous way of achieving the goal of scholarship and committment to teaching.

On behalf of the committee we would like to thank you for your meticulous critique of our draft proposal and to acknowledge the help of other members of the American Board of Pediatrics, Incorporated who informally reviewed the draft proposal and generously gave advice on the preparation of this application.

We do not as yet have letters of support from representatives of groups with related interests (item 11). We have written to Robert H. Schwartz, M.D., American Board of Allergy and Immunology and to Nicholas M. Nelson, M.D., Subboard of Neonatal/Perinatal Medicine. In each case they asked for more information and indicate that they will present our requests for support to their respective organizations.

Please call or write if there are any questions in regard to this proposal.

Sincerely,

Howard Eigen M.D.

Associate Professor of Pediatrics Director, Section of Pulmonology

John G. Brooks, M.D.

Director

Pediatric Pulmonary Division

University of Rochester Medical Center

HE/bar

Encl.

RECEIVED DEC 1 9 1983

College of Physicians & Surgeons of Columbia University | New York, N.Y. 10032

DEPARTMENT OF PEDIATRICS

ROBERT B. MELLINS, M.D.
PROFESSOR OF PEDIATRICS
DIRECTOR, PEDIATRIC PULMONARY DIVISION

630 West 168th Street New York, N.Y. 10032 (212) 694-6551

XIV B

December 12, 1983

Joseph W. St. Geme, Jr., M.D. Department of Pediatrics Harbor-UCLA Medical Center 1000 W. Carson Street Torrance, CA 90509

Dear Joe:

I understand that the American Board of Pediatrics will be reassessing the application for Pediatric Pulmonary Sub-boards. Although we have spoken about this in the past, I thought it might be useful for me to put my thoughts down in writing. I start with several assumptions, the chief one of which is that the national need is for academically-oriented chest physicians who will serve as teachers and consultants to medical students, house staffs, attending and practicing physicians, as well as generators of new knowledge. The corollary to this is that generating a potential excess of physicians whose activities are limited to clinical practice only and who in one sense would compete with practicing pediatricians would not be in the national interest and an example of this now exists in adult pulmonary medicine. My next assumption is that while one cannot legislate academic careers, programs are much more likely to result in academic chest physicians if there is a serious commitment to pursuing research early on and that three years of training seems minimal. Indeed, most successful academicians have had several years more of training as junior faculty beyond the fellowship year.

My support for the Pediatric Pulmonary Sub-boards was based on the notion that the Board would take such a plan seriously. If, as some have suggested, 2-year programs are being considered as adequate and a variety of escape clauses inserted by which practice in chest medicine beyond the fellowship years is to qualify as adequate training, I could lose my enthusiasm for the Boards and, indeed, would strongly counsel against them.

Nothing is likely to be as counterproductive to the maintenance of high standards as watering down the requirements. While some of my colleagues have worried that there will be inadequate support for three years, I would take the position that if this is the requirement that thoughtful individuals in the field advocate, the funding agencies will change their policies too. With respect to subspecialties in pediatrics, I believe excellence and not the lowest common denominator needs to be the focus.

Joseph W. St. Geme, Jr., M.D. December 12, 1983
Page 2

I urge the Board to continue to be imaginative in their creation of new subspecialty boards and to insist on the type of training that has proved successful in the past in generating academically-oriented specialists. A serious commitment to the performance of research and a minimum of three years of training in my judgment is essential.

I do hope these comments are helpful to you and the Board.

Sincerely,

Robert B. Mellins, M.D.

RBM:ih

cc: American Board of Pediatrics

The American Board of Pediatrics has established a procedure for certification in pediatric pulmonology.

ELIGIBILITY CRITERIA

- 1. Certification by the American Board of Pediatrics. Applicants may submit their application prior to taking the oral examination in general pediatrics. However, an applicant must take and pass the oral examination before being permitted to take the pediatric pulmonology examination.
- 2. <u>Subspecialty Training or Experience</u>. Prior to the examination, the applicant must have COMPLETED one of the following to qualify for examination:
- LAN 1: Three years of full-time subspecialty residency training in pediatric pulmonology in a program under the supervision of a director who is certified in pediatric pulmonology, or, lacking such certification, possesses equivalent credentials. All subspecialty training must have been broadly based and completed in the United States or Canada, unless the Credentials Committee of the Subspecialty Committee has granted approval for foreign subspecialty training to an applicant before he/she enrolls in such a program. Applicants wishing to obtain prospective approval should contact the American Board of Pediatrics.

Applicants will not receive credit toward the Subspecialty Committee's requirements for any elective time spent in pediatric pulmonology during the general pediatric residency years (PL 1, 2, 3).

- LAN 2: Five years of broadly based pediatric pulmonology. Broadly based pediatric pulmonology encompasses the majority of the clinical components which are included in the 1978 Guidelines for Pediatric Pulmonary Training (Mellins RB, Chernick V, Doershuk CF, et al: Report of the task force to establish guidelines for pediatric pulmonary training. Pediatrics 62: 256-257, 1978). A minimum of 50% of full-time professional activities must be spent in pediatric be distributed in the same manner as regular time. These five years should be of such type and quality that they substitute for the clinical exposure one might pulmonology experience must be accrued before December 31, 1990. No foreign pediatric pulmonology experience will be accepted by the Credentials Committee in fulfillment of the requirements.
- AN 3: Subspecialty residency training/pediatric pulmonology experience to equal five years as outlined in one of the three methods below:
 - (1) Those applicants who completed less than 12 months of subspecialty residency training in pediatric pulmonology may receive credit on a month-for-month basis. For example, a nine-month subspecialty residency would be credited as months of pediatric pulmonology; this, added to four years and three months of pediatric pulmonology experience would total 60 months or five years. These five years must be accrued prior to December 31, 1990.
 - (2) Those applicants completing 12 to 23 months of subspecialty residency training in pediatric pulmonology may receive credit on a two-for-one basis. For example, an 18-month subspecialty residency would be credited as 36 months of pediatric pulmonology; this, added to 24 months of pediatric pulmonology experience would total 60 months or five years. These five years must be

(3) Those applicants who completed 24 or more months of subspecialty residency training in pediatric pulmonology prior to January 1, 1986 may receive credit on a two and a half-for-one basis. For example, a 24-month subspecialty residency would be credited as the 60 months needed to qualify for admission given in or prior to 1992.

Applicants completing 24 months of subspecialty residency training after January 1, 1986, will receive credit on a two-for-one basis. Such applicants would be credited with 48 months of pediatric pulmonology; this supplemented by 12 months of pediatric pulmonary experience would total 60 months or five years. These five years must be accrued prior to December 31, 1990.

Those entering pediatric pulmonology training after January 1, 1986, must complete three years of training to qualify for admission to the examination.

Applicants may not apply the same training period toward fulfillment of the requirements of two different certifying Boards/Sub-Boards/Subspecialty Committees.

Those applicants entering the examination via the <u>pediatric pulmonology</u> experience or <u>subspecialty residency/experience</u> routes must make application, be approved for, and sit for the examination given in or prior to 1992. The Credentials Committee will evaluate these applicants based upon the pediatric pulmonology experience accrued during the five years prior to the date of the examination.

An applicant seeking certification in more than one subspecialty area may qualify for examination by only one Sub-Board/Subspecialty Committee on the basis of experience alone; the full-time subspecialty training requirements must be fulfilled in order to qualify for certification by other Sub-Boards/Subspecialty neonatal-perinatal medicine examination with five years of experience in examination only if he/she has completed three years of subspecialty residency training in pediatric pulmonology.

3. <u>Verification of training and/or experience</u>. Verification of Clinical Competence Forms/Evaluation Forms are required from the following:

For those utilizing the <u>subspecialty residency training route</u>, a Verification of Clinical Competence Form will be sent to the pediatric pulmonology program director(s) where the training occurred.

For those utilizing the <u>pediatric pulmonology experience route</u>, an Evaluation Form, which is provided by the Board office, will be required from:

(1) the pediatric pulmonology program director in the hospital where the applicant is seeing patients (if there is a training program);

OR (2) the pediatric department chairman OR the chief of pediatrics in the hospital where the applicant is now or has been involved in pediatric pulmonology.

For those utilizing the <u>subspecialty residency training/pediatric pulmonology</u> experience route:

(1) a Verification Form will be sent to the pediatric pulmonology program director where the training occurred:

AND (2) an Evaluation Form will be required from the pediatric department chairman On been involved in pediatric pulmonology.

The completed Verification/Evaluation Form(s) should be sent directly by the program director, chief of pediatrics, or department chairman to the American Board of Pediatrics. All Evaluation Forms should be sent to the Board office prior to the closing of registration for a particular examination.

THE AMERICAN BOARD OF ALLERGY AND IMMUNOLOGY

A Conjoint Board of the American Board of Internal Medicine and the American Board of Pediatrics

UNIVERSITY CITY SCIENCE CENTER 3624 MARKET STREET, PHILADELPHIA, PENNSYLVANIA 19104

215-349-9466

Herbert C. Mansmann, Jr., M.D., Exec. Sec. Lynn Des Prez, Administrative Assistant January 10, 1984

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Robert C. Brownlee, M.D. Executive Secretary American Board of Pediatrics, Inc. 111 Silver Cedar Court Chapel Hill, N.C. 27514

Dear Bob,

During the annual meeting of the American Board of Allergy and Immunology on December 7-9, 1983 in Philadelphia, Bob Schwartz reported on his attendance at your Board's annual meeting on October 7-9 in Orlando. There was much discussion over the fact that, when the American Board of Pediatrics asked Bob to comment on the petition for subcertification in pediatric pulmonology presented before the ABP, he was not able to speak for the ABAI because it had not had enough information at its previous meeting to give a formal opinion. However, after reviewing all of the material made available to Dr. Schwartz in support of this issue at the 1983 annual meeting, the Board felt in December that it had enough information to develop an opinion on the question of whether a subspecialty board is needed. The matter was brought to vote before the full Board and the following represents the unanimous opinion of the American Board of Allergy and Immunology:

The American Board of Allergy and Immunology, a conjoint board of the American Board of Pediatrics and the American Board of Internal Medicine, believes that formation of a sub-board in pediatric pulmonology is not currently justifiable. Those who wish to see its establishment have been unable to identify a large enough patient base over and above atopic asthma to warrant its existence. At present, the main focuses of pulmonary disease in children after the neonatal period involve infectious diseases, atopic asthma, and intensive care situations. Those wishing certification may obtain it through the Infectious Disease Board, the American Board of Allergy and Immunology or perhaps, if it comes about, the future Critical Care Board. Thus, the American Board of Allergy and Immunology is unable to endorse the petition for a subspecialty board in pediatric pulmonary and sees new subspecialty fragmentation as an unnecessary negative influence on the care of patients with the above mentioned diseases.

Robert C. Brownlee, M.D. Page Two
January 10, 1984

This letter will serve to put on record the official opinion of the American Board of Allergy and Immunology, a Conjoint Board of the ABP and ABIM, with respect to the above matter on which Dr. Schwartz was only able to deliver his personal opinion at your annual meeting.

Sincerely,

Becky

Rebecca H. Buckley, M.D. Professor of Pediatrics and Immunology

RHB:1bw

cc: Pobert E. Reisman, M.D.
Herbert C. Mansmann, Jr., M.D.

American Academy of Pediatrics



2.O. Box 1034 1801 Hinman Avenue Evanston, Illinois 60204 2hone (312) 869-4255 2hicago (312) 273-3848

ommittee of the action on lergy & Immunology Joseph W. St. Geme, Jr., M.D. Department of Pediatrics Harbor - UCLA Medical Center 1000 W. Carson Street Torrance, California 90509 July 18, 1983

Dear Dr. St. Geme:

I have been informed that the American Board of Pediatrics will again consider the request of a number of pedatricians with interest in pulmonary disease that there be a new subspecialty board in Pediatric Pulmonology. The Section on Allergy and Immunology of the American Board of Pediatrics has been asked to endorse this request.

The Section on Allergy and Immunology believes that a pulmonology board is not currently justified. Those who wish to see its establishment have been unable to identify a large enough patient base to warrant its existence. At present the main focuses of pulmonary disease in children after the neonatal period involve infectious disease, asthma and intensive care situations. Those wishing certification may obtain it through the Infectious Disease Board, the American Board of Allergy and Immunology, and/or soon, through the Critical Care Board. In this context we see new subspecialty fragmentation as an unnecessary negative possibility.

Please let me know if I or my Section can be of assistance to you as you deliberate this issue.

Sincerely,

Gail G. Shapiro, M.D.

Chairman

Section on Allergy and Immunology

GGS:pgb

The American Board of Pediatrics, Inc.

111 Silven Cedar Count Chapel Hill, North Carolina 27514 (9*19) 929.0461

Robert C. Brownlee, M. D. Executive Secretary

May 17, 1984

Donald G. Langsley, M.D. American Board of Medical Specialties One American Plaza Evanston, IL 60201

Dear Don:

By means of this letter and the attached application, the American Board of Pediatrics requests permission of the American Board of Medical Specialties to subcertify in pediatric pulmonology.

The Board proposes to create a Subspecialty Committee of Pediatric Pulmonology and certify those individuals who meet the requirements and pass the examinations as outlined in the accompanying proposal.

This proposal is being submitted in accordance with the bylaws of ABMS, Article XII, Section 12.3. We are submitting this now so it can be considered

We will appreciate very much the consideration of this proposal by COCERT, the Executive Committee, and the ABMS Assembly. You will find a letter from the American Board of Allergy and Immunology, a conjoint Board of the American Board of Internal Medicine and the American Board of Pediatrics, as part of the proposal. Also, Dr. John Benson, President of the American Board of Internal Medicine, indicates that he will send a letter directly to ABMS.

If COCERT or the Executive Committee would like to have someone present from the American Board of Pediatrics to discuss this proposal, we would be glad

We appreciate your consideration and look forward to favorable action on this request at the next meeting of ABMS.

Sincerely,

Bak / 12

Robert C. Brownlee, M.D. Executive Secretary

RCB: jh Enclosure

ARD MEMBERS - 1984: William W. Cleveland, M.D., President; Donal L. Dunphy, M.D., Vice-President; Howard H. Nichols, M.D., Secretary-Treasurer; omas K. Oliver, Jr., M.D., President-Elect; Laurence Finberg, M.D.; Melvin E. Jenkins, M.D.; J. Neal Middelkamp, M.D.; J. Darrell Miller, M.D.; Thomas Peebles, M.D.; Carolyn F. Piel, M.D.; Lisbeth B. Schorr; Joseph W. St. Geme, Jr., M.D.; Robert A. Ulstrom, M.D.

3SPECIALTY CHAIRMEN: Charles F. Abildgaard, M.D., Pediatric Hematology-Oncology; Alfred M. Bongiovanni, M.D., Pediatric Endocripology.

The American Board of Pediatrics, Inc.

Appendix L

111 Silver Cedar Court Chapel Hill, North Carolina 27514-1651 (919) 929-0461

Robert C. Brownlee, M.D. Executive Secretary

September 6, 1985

John A. Benson, Jr., M.D. American Board of Internal Medicine 200 S.W. Market Street Portland, OR 97201

Dear John:

When I returned from my vacation, Diane Butzin showed me a letter from Lynn Langdon stating that ABIM was pleased to donate questions for our use as part of an examination to evaluate the members of the Subspecialty Committee of Pediatric Pulmonology. We appreciate your generosity very much and also appreciate Lynn's kind words.

You might be interested to know that we selected a group of questions from internal medicine's pulmonology exam, which could be used for anyone involved in pulmonology or might have application to the older child and adolescent. This comprised approximately half of the examination. The other half of the examination was questions selected after the first item review, but before the Committee had had time to gain a great deal of familiarity with the questions. I was pleased to see that our people scored better on the pediatric questions than they did on the ABIM questions.

We appreciate your helpfulness.

Sincerely,

Bob gla

Robert C. Brownlee, M.D. Executive Secretary

Signed in Dr. Brownlee's absence

RCB:plr

cc: Ms. Lynn O. Langdon

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SUBSPECIALTY CHAIRMEN: Alfred M. Bongiovanni, M.D., Pediatric Endocrinology; John G. Brooks, M.D., Pediatric Pulmonology; Richard N. Fine, M.D., Pediatric Nephrology; William F. Friedman, M.D., Pediatric Cardiology; Peter R. Holbrook, M.D., Pediatric Critical Care Medicine; George R. CONSULTIANT TO THE TRANSPORT OF THE PROPERTY OF T

CONSULTANT TO THE BOARD: Fredric D. Burg, M.D.

Appendix M

The American Board of Pediatrics, Inc.

111 Silven Cedan Count Chapel Hill, North Carolina 27514-1651 (919) 929-0461

Robert C. Brownlee, M.D. Executive Secretary

mailed 13-95

MEMORANDUM

To:

Subspecialty Committee of Pediatric Pulmonology

From:

Robert C. Brownlee, M.D.

RCB

Date:

October 22, 1985

The questions included in the examination you took to certify yourselves were administered to eighteen oral examiners for the Board. The group included practitioners and academicians representing various fields of pediatrics including cardiology, EENT, allergy, infectious disease, metabolism, etc. No one is a pulmonologist. Two people felt they did so poorly they did not complete the examination; the mean score for the others was 55. The mean score for your committee was 90. I think this difference indicates that you have prepared an examination for subspecialists which is aimed at the appropriate level of difficulty and will discriminate between those who are experienced and/or well-trained and those who are not. I do not believe any further field-testing would be productive.

RCB: DWB: mjs

cc: Victor Chernick, M.D.

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SUBSPECIALTY CHAIRMEN: Alfred M. Bongiovanni, M.D., Pediatric Endocrinology; John G. Brooks, M.D., Pediatric Pulmonology; Richard N. Fine, M.D., Pediatric Nephrology; William F. Friedman, M.D., Pediatric Cardiology; Peter R. Holbrook, M.D., Pediatric Critical Care Medicine; George R. CONSTRUCTOR TAXASTO TO THE RESEARCH PROPERTY TO THE RESEARCH

CONSULTANT TO THE BOARD: Fredric D. Burg, M.D.

STAFF: Harold Meyer, M.D., Associate Executive Secretary: Diane W Roser Diane

Figure Legends

- Figure 1 Ancient Greek physician (iatros) performing auscultation (1).
- Figure 2 Theophile Laennec (1781-1826) and the first stethoscope (2).
- Figure 3 Author's personal figurine.