

## CURRICULUM VITAE

**Name:** Manuel G. COSIO

**Date and Place of Birth:** - omissis .

**Citizenship:** - omissis -

### **Education:**

June 1959-October 1960 School of Sciences, University of Oviedo, Spain. Degree in Basic Sciences.

October 1960-June 1967 School of Medicine, University of Madrid, Spain. Degree in Medicine and Surgery. Honours in Medicine.

Summer 1965 Externship in Cardiology with Professor Soulier, Hôpital Broussais, Paris

July 1967-May 1968 Private practice in Internal Medicine and Pulmonary Diseases with Dr. J. G. Cosio

July 1968-June 1969 & July 1969-June 1970 Internship and first year Residency in Internal Medicine, Mount Sinai Hospital (University of Minnesota Hospitals)

July 1970-January 1972 Second and third years of Residency in Internal Medicine, University of Minnesota Hospitals, Minneapolis

Jan. 1972-Oct. 1973 Sub-specialty training in Chest Diseases, University of Minnesota Hospitals. Director, Dr. Frank M. MacDonald.  
(Jan. 1971-April 1971)

August 1972 Two-week course in TB at the National Jewish Hospital, Denver, Colorado, under the direction of W. Lester.

September 1973 With Dr. Leroy Lapp at West Virginia University and Appalachian Laboratory for Professional Diseases.

**Medical Certification:**

September 1967	ECFMG
May 1975	LMCC
1981	CSPQ # 75-658

**Specialty Certification:**

June 1972	American Board of Internal Medicine
October 1974	American Board of Chest Diseases
November, 1980	Corporation Professionnelle des Médecins du Québec - Pneumology

**Academic Appointments:**

October 1973-July 1974	Chief, Department of Chest Medicine, National Institute of Silicosis, Oviedo, Spain.  Consultant in Chest Diseases, Asturias General Hospital, Oviedo, Spain.
July 1974-July 1975	Lecturer, Department of Medicine, McGill University, Montreal, Canada
July 1974-July 1976	Research Fellow, Meakins-Christie Laboratories, Department of Medicine, McGill University. Research director: Dr. J.C. Hogg. Laboratory director: Dr. P.T. Macklem.
Sept. 1976-Dec. 1979	Director, Pulmonary Laboratories, V.A. Medical Center, Minneapolis, Minnesota, and Assistant Professor of Medicine, Department of Medicine, University of Minnesota.
Jan. 1980-Dec. 1983	Director, Pulmonary Laboratories, Royal Victoria Hospital and Montreal Chest Hospital Centre. Medical Director, Respiratory Technology, Royal Victoria Hospital. Associate Physician, Royal Victoria Hospital. Associate Professor, Department of medicine McGill University.

August 1983-Dec. 1983	Acting Director, Respiratory Division, Royal Victoria Hospital.
January 1984-2010	Director, Respiratory Division, Royal Victoria Hospital.
	Senior Physician, Respiratory Division, Department of Medicine, Royal Victoria Hospital.
June 1, 1984-2010	Associate Member, Nutrition and Food Science Centre, Faculty of Medicine, McGill University.
October, 1988-2010	Full Professor, Department of Medicine, Faculty of Medicine, McGill University.
September 1991-1994	Director, Respiratory Training Program, McGill University.
January 1995- 1998	Director, Respiratory Division and Montreal Chest Institute, Department of Medicine, Royal Victoria Hospital, McGill University.
November 1998-2010	Associate Member, Department of Pathology, Faculty of Medicine, McGill University.
November 1999-2010	Member in the Division of Experimental Medicine in the Department of Medicine.
January 16 <sup>th</sup> 2010	Emeritus Professor of Medicine, McGill University
January 2010 –Today	Research Director of the Respiratory Division of the Meackins- Christie laboratories and the Royal Victoria Hospital, McGill University

### **Honours, prizes, distinctions:**

“Outstanding teaching” award, given by Medical and Respiratory residents in 1992 and 2007.

Canadian Best Doctor award in 2006.

Sociedad Espanola de Patologia Respiratoria (Honorary Member)

Sociedad Chilena de Patologia Respiratoria (Honorary Member)

### **Teaching activities:**

Advanced Topics in Respiration (516-508B) 1/year - 2 hours (Honors Physiology students, graduate students and research fellows) – McGill Meakins-Christie Laboratories (1984-2010)

Advanced Applied Respiratory Physiology (516-507A) 1/year – 2 hours (Honors Physiology students, graduate students and research fellows) – McGill Meakins-Christie Laboratories (1980-2010)

Respiratory Pathophysiology: 2 hours, 5 times/year to medical; students (1980-2010)

Clinical Pathophysiology core teaching lectures: 1 hour twice monthly September to July. To Respiratory, Anesthesia and medical residents and medical students 81984-2010).

Internal Medicine clinical/bedside teaching: 2 hours twice weekly 1 month a year. To medical students and residents. (1980-2004)

Respiratory teaching rounds: (Didactic and bedside teaching). 3 hours daily 2 months a year. To Medical and Respiratory residents and Medical students. (1980-present)

Respiratory weekly teaching rounds: Organizer and Leader (1984-1998) Participant teacher (1998-present). To Respiratory and Medical residents, Radiology residents and Medical students.

Internal Medicine teaching rounds: Participant teacher. 1 hour weekly. (1980-2004)

*The evaluation for lectures given were mostly in the 4.5/5 range.*

### **Supervision of Postdoctoral Fellows since 1980:**

-	Dr. R. Shiner	Israel	1980-1982
-	Dr. W. D. Kim	Korea	1981-1983
-	Dr. W. Vincken	Belgium	1982-1984
-	Dr. J. L. Stril	Mexico	1982-1984
-	Dr. D. Eidelman (MRC)	Canada	1982-1983
-	Dr. M. Saetta	Italy	1983-1985
-	Dr. S. Huang	China	1983-1984
-	Dr. W. Gibbons (ALA)	Canada	1985-1987
-	Dr. J. Marin-Trigo	Spain	1985-1986
-	Dr. M. Polverino	Italy	1986-1987
-	Dr. C. Tardif	France	1987
-	Dr. P. de Lucas	Spain	1987-1988
-	Dr. D. Small	Canada	1987-1988
-	Dr. J. Kimoff	Canada	1988-1989

- Dr. G. Georgiadis	Greece	1988-1989
- Dr. T. H. Cheong	Singapore	1988-1989
- Dr. A. Izquierdo	Spain	1988-1989
- Dr. I. Lichros	Greece	1989-1991
- Dr. M. Charbonneau	Canada	1990-1991
- Dr. H. Ma	China	1990-1992
- Dr. J. Montserrat	Spain	1991-1992
- Dr. E. Kosmas	Greece	1991-1992
- Dr. A. Al-Askar	Saudi Arabia	1991-1992
- Dr. A. Al-Shimemeri	Saudi Arabia	1991-1992
- Dr. E-C. Zhu	China	1991-1993
- Dr. I. Dimopoulou	Greece	1992-1993
- Dr. W. S. Kim	Korea	1992-1993
- Dr. R. Finkelstein (CLA)	Canada	1992-1994
- Dr. S. Dial	Canada	1992-1993
- Dr. S. Mehta	Canada	1992-1993
- Dr. J. Majó (CLA)	Spain	1995-1997
- Dr. D. Ramos (MRC)	Spain	1996-1997
- Dr. F. Payo	Spain	1996
- Dr. Yasutaka Takubo	Japan	1999
- Dr. Yuma Hoshino	Japan	2002-2004
- Dr. Rosa Maria Rivera	Mexico	2002
- Dr. Ramon Marrades	Spain	2002
- Dr. Mitsuaki Sekiya	Japan	2003-2005
- Dr. Rafael Zenteno	Mexico	2003-2005

#### **Graduate Students**

- Antony Turcotte	Masters Student	2002-2004
- Salomon Cornejo	PhD Student	2003-2006
- Adrienne Scott	Masters Student	2004-2006

#### **Ph.D Thesis Director for:**

- Dr. W. Vincken	Belgium	1984-1987
- Dr. J. Izquierdo	Spain	1988-1989

#### **and Ph.D. Examiner for:**

- Dr. W. Vincken	Belgium	1987
- Dr. P. De Vuyst	Belgium	1988
- Dr. L. N. A. Willem	The Netherlands	1988
- Mr. T. Du	Canada	1991
- Dr. P.A. Gevenois	Belgium	1996

#### **and M.Sc. Examiner for:**

- Mr. M. Vassilyadi	Canada	1987
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### **Editorial Activities:**

- Associate Editor, current Opinion in Pulmonary Medicine.
- Assistant Chief Editor, European Respiratory Journal.
- Associate Editor Archivos de Neumología
- Associate Editor Journal Of Chronic Obstructive Pulmonary Disease

### **Membership in Professional and Scientific Societies and Organizations:**

Canadian Thoracic Society  
Canadian Society for Clinical Investigation  
Association Pulmonaire du Québec  
American Thoracic Society  
American Physiological Society  
European Society for Clinical Investigation  
European Society for Clinical Respiratory Physiology  
Sociedad Espanola de Patologia Respiratoria (Honorary Member)  
Sociedad Chilena de Patologia Respiratoria (Honorary Member)  
European Respiratory Society

### **Administrative and Committee Experience:**

- Member, Working Group - Guidelines for Pulmonary Function Laboratories, 1982.
- Member, Standards Committee, Canadian Thoracic Society
- Vice President, Executive Committee, Association des pneumologues de la province de Québec
- Member, Executive Committee, Department of Medicine, Royal Victoria Hospital, McGill University
- Vice President, Board of Examiners in Pneumology, Corporation professionnelle des médecins du Québec (Feb. 1985-April, 1992)
- Member of the Editorial Board, Current Opinion in Pulmonary Medicine and Critical Care, 1992.
- Secretary, Canadian Thoracic Society, 1993.
- Co-Chairman, ERS 1999 Congress in Madrid, 1997.
- Member of the Steering Committee of the COPD Tokyo Symposium, February 1998.
- Member of the Medical and Scientific Advisory Committee of the Alpha One Foundation, May 2000.

### **Guest Lectureships:**

More than 100 invited lectures

**Honours:**

- June 1987 Honorary Member for the Spanish Society of Respiratory Medicine (SEPAR).
- June 1992 Doctor Jules Arthur Peter Paré Award for the Best Teacher of the Respiratory Division presented by the Respiratory Residents
- March 1993 Honorary Member, Chilean Society for Respiratory Diseases.
- May 2001 AHQ/Merck Frosst Medical Leadership Award - A new Approach to Acute Respiratory Care: The Montreal Chest Institute Day Hospital. Kevin Schwartzman, M.D.,MPH, Manuel G. Cosio, M.D., Guylaine Duquette, MSc.
- November 2001 Invited guest speaker - Peter Macklem Lecture - Annual conference, Association des pneumologues de la province de Québec, Montreal, Quebec.
- September 2005 Honorary Member International Scientific Experts Panel, Instituto de Salud Carlos III, Madrid, Spain.
- July 2006 Honorary Member – CIMERA Scientific Advisory Board, CIMERA Fundacio Caubet-Cimera Illes Balears – International Center for Advanced Respiratory Medicine, Mallorca, Spain.
- June 2007 Doctor Jules Arthur Peter Paré Award for the Best Teacher of the Respiratory Division presented by the Respiratory Residents

**Others:**

Founder and organizer with Dr. R. Rodriguez-Roisin from the University of Barcelona, Spain, of the Curso Iberoamericano de Neumologia. Meetings organized in Spain (1990), Mexico (1992), Chile (1994), Venezuela (1996). This Course is sponsored by McGill University and the University of Barcelona.

**Ad Hoc Grant Reviews for:**

- U.S. National Institute of Health  
Medical Research Council of Canada  
U.S. Veterans' Administration  
B.C. Lung Association  
Health and Welfare Canada  
Association Pulmonaire du Québec  
Fonds de la Recherche en Santé du Québec  
NATO Scientific Affairs Division  
Comision Interministerial de Ciencia y Tecnologia, Spain

**Ad Hoc Paper Reviews for:**

American Journal of Respiratory & Critical Care Medicine  
Sleep  
Chest  
Journal of Applied Physiology  
The European Respiratory Journal  
Thorax

**Grants:**

1. Studies of the Role of Airway Obstruction in the Pathogenesis of Emphysema. (1977)  
Granting agency: U.S. Veterans' Administration.  
Amount granted: \$40,000.00
2. Role of the Alveolar Macrophage in the Production of Emphysema. (1979)  
Granting agency: U.S. Veterans' Administration.  
Amount granted: \$97,000.00
3. Morphological Determinants of Functional Abnormalities and Cor Pulmonale in Chronic Obstructive Lung Disease. (1981-1983)  
Granting agency: Medical Research Council of Canada.  
Amount granted: \$75,000.00
4. Lung Morphometry in Smokers and Alpha-1 Antitrypsin Lungs. (April 1987-June 1989). Granting agency: Medical Research Council of Canada.  
Amount granted: \$97,258.00
5. Morphology-function Correlation in Emphysema: Destruction and Inflammation. Bilateral Project. (1988)  
Sponsored by: Italian National Research Council.  
Amount granted: \$5,000.00 U.S.
6. Studies on Arousal Mechanisms in Obstructive Sleep Apnea. (1989)  
Granting agency: Association Pulmonaire du Québec  
Amount granted: \$3,000.00
7. Airway Reactivity Lung Inflammation and Lung Destruction in Smokers. (July 1989-June 1992).  
Granting agency: Medical Research Council of Canada  
Amount granted: \$156,625.00
8. Determination of Appropriate Criteria for the Treatment of Obstructive Sleep Apnea. (June 1990-December 1992)

- Granting agency: Fonds de la recherche en santé du Québec.  
Amount granted: \$75,000.00
9. The Role of Alpha-1 Antiprotease Level, IgE and Inflammation in the Pathogenesis of Emphysema. (July 1992-January, 1993)  
Granting agency: Medical Research Council of Canada  
Amount requested: \$25,000.00
10. Network Centres of Excellence (MRC)  
Principal Investigator in the theme: "Morphology Function Relationships in COPD"  
(1990-1994)  
Amount granted: \$70,000.00 p.a.
11. Costello Fund  
Principal Investigator in the theme: "Pulmonary Emphysema"  
(1996)  
Amount granted: \$12,500.00 p.a.
12. MRC/PMAC Health Program - Astra Pharma  
Operating grant/Fellowship: "A novel animal model for pulmonary emphysema"  
(1998-2000)  
Amount granted: \$60,000.00 p.a.
13. BAYER Inc.  
Fellowship: "A novel animal model for pulmonary emphysema"  
(1996-2000)  
Amount granted:\$20,000 p.a.
14. NIH  
Operating grant (co-applicant with Dr. J.R. Hoidal): "Pulmonary emphysema: role of serine proteinases."  
(1997-2002)  
Amount \$275,700 US p.a.
15. NIH  
Operating grant (co-applicant with Dr. J.R. Hoidal):"Inflammation in the pathogenesis of COPD."  
(2001-2005)  
Amount \$335,000 US p.a.
16. Alpha 1 Foundation Research Grant  
Operating Grant "Genetic susceptibility to emphysema in mice"  
(2001-2003)  
Amount \$101,080 US p.a.
17. Alpha One Foundation

- Salary support for Associate Researcher, Alexei Guerassimov  
(1997-2002)  
Amount \$33,000 US p.a.
18. MCI Research Institute (Fellowship)  
Stipend for Fellow  
(2001-2002)  
Amount \$17,000
19. MUHC Research Institute (Fellowship)  
Stipend for Fellow  
(2002-2003)  
\$29,000
20. Alpha One Foundation Research Grant  
Operating Grant (Renewal) "Genetic susceptibility to emphysema in mice"  
(2003-2004)  
Amount \$100,000 US p.a.
21. MUHC Research Institute (Fellowship)  
Stipend for Fellow  
(2003-2004)  
Amount \$29,000
22. Fonds de la recherche en santé Québec  
Stipend for Graduate student  
(2003-2004)  
Amount \$15,000
23. Merck Sharp & Dohme Research Laboratory  
Research Agreement "Establishment and Validation of an Animal Model of COPD"  
(2003-2006)  
Amount \$400,000
24. MCI Research Institute (Fellowship)  
Stipend for Fellow  
(2004-2005)  
Amount \$15,000
25. The Lloyd Carr Harris Foundation (Operating Grant)  
"An animal model for emphysema (alpha-1 deficient and non-deficient)"  
(2005-2009)  
Amount \$90,000/yr.

**Publications:**

(2010)

**Enclosure 1**

**PUBLICATIONS**

**Original articles:**

1. **Cosio MG.** Supravalvular Aortic Stenosis. Boletin de la Catedra de Pedriatria de Madrid. 1965; 8:96.
2. **Cosio MG.** Gram Negative Pneumonias. V.A. Medical Center Grand Rounds Publication, August 1971.
3. Kronenberg RS, **Cosio MG**, Stevenson JE, Drage CW. The use of oral diazepam in patients with obstructive lung disease and hypercapnea. Ann Intern Med 1975; 83(1).
4. Fukuchi Y, **Cosio MG**, Kelly S, Engel LA. Influence of pericardial fluid on cardiogenic gas mixing in the lung. J Appl Physiol 1977; 42:5-12.
5. Roussos Ch, Fixley M, Genest J, **Cosio MG**, Kelly S, Martin RR, Engel LA. Voluntary factors influencing the distribution of inspired gas. Am Rev Respir Dis 1977; 116:457-467.
6. **Cosio MG**, Ghezzo H, Hogg JC, Corbin D, Loveland M, Dosman J, Macklem PT. The relations between structural changes in small airways and pulmonary function tests. N Eng J Med 1978; 298:1277-1281.
7. Montgomery MR, Casey PG, **Cosio MG**, Niewoehner DE. Pulmonary structure-function relationships following acute, low dosage oxidant exposure. Arch Environ Health 1979; 34:396-401.
8. Valls AA, **Cosio MG**. Periodic acid shift. Hematoxin phlox safranin. A new multipurpose stain. Journal of Histotechnology 1979; 2:104-105.
9. Fukuchi Y, **Cosio MG**, Murphy B, Engel LA. Intraregional basis for sequential filling and emptying of the lung. Respir Physiol 1980; 41:253-266.
10. **Cosio MG**, Hale KA, Niewoehner DE. Morphologic and morphometric effects of prolonged cigarette smoking on the small airway. Am Rev Respir Dis 1980; 122:265-271.
11. Hale KA, Niewoehner DE, **Cosio MG**. Morphologic change in the muscular pulmonary arteries: relationship to cigarette smoking, airways disease and emphysema. Am Rev Respir Dis 1980; 122:273-278.
12. Ernst P, Chen M-F, Wang NS, **Cosio MG**. Fatal pneumonia secondary to

- combined pneumocystis carinii and cytomegaloviral pneumonia in a Haitian man. Can Med Assoc J 1983; 128:1089-1091.
13. Vincken WG, Gauthier S, Dollfuss RE, Hanson RE, **Cosio MG**. Involvement of upper airway muscles in extrapyramidal disorders: A cause of airflow limitation. N Eng J Med 1984; 311:438-442.
  14. Vincken W, Gauthier S, Dollfuss RE, Hanson R, Darauay C, **Cosio MG**. Respiratory muscle involvement in Parkinson's disease. N Eng J Med 1984; 311:1516-7.
  15. Vincken W, **Cosio MG**. Clinical applications of high-frequency jet ventilation. Intensive Care Med. 1984; 10:275-280.
  16. Saetta M, Shiner RJ, Angus GE, Kim WD, Wang NS, King M, Ghezzo H, **Cosio MG**. Destructive Index: A measurement of lung parenchymal destruction in smokers. Am Rev Respir Dis 1985; 131:764-769.
  17. Saetta M, Ghezzo H, Kim WD, King M, Angus GE, Wang NS, **Cosio MG**. Loss of alveolar attachments in smokers: A morphometric correlate of lung function Impairment. Am Rev Respir Dis 1985; 132:894-900.
  18. Vincken W, **Cosio MG**. Flow oscillations on the flow-volume loop: a nonspecific indicator of upper airway dysfunction. Bull Eur Physiopathology Respir 1985; 21:559-567.
  19. Passerini L, **Cosio MG**, Newman S. Respiratory muscle dysfunction after herpes zoster. Am Rev Respir Dis 1985; 132:1366-1367.
  20. Hakim T, King M, Wang CG, **Cosio MG**. Effect of chronic cigarette smoke exposure on pulmonary vasomotion in beagle dogs. J Appl Physiol 1985; 59:1815-1823.
  21. Wright JL, **Cosio MG**, Wiggs B, Hogg JC. A morphological grading scheme for membranous and respiratory bronchioles. Arch Pathol Lab Med 1985; 109:163-165.
  22. King M, Kelly S, **Cosio MG**. Alteration of airway reactivity by mucus. Respir Physiol 1985; 62:47-59.
  23. **Cosio MG**, Shiner RJ, Saetta M, Wang N-S, King M, Ghezzo H, Angus E. Alveolar fenestrae in smokers: relationship with light microscopic and functional abnormalities. Am Rev Respir Dis 1986; 133:126-131.
  24. Vincken W, Dollfuss RE, **Cosio MG**. Upper airway dysfunction detected by respiratory flow oscillations. Eur J Respir Dis 1986; 68:50-57.
  25. Picado C, Laporta D, Grassino A, **Cosio MG**, Thibodeau M, Becklake MR.

- Mechanisms affecting exercise performance in subjects with asbestos-related pleural fibrosis. *Lung* 1987; 165:45-57.
26. Vincken W, Guilleminault C, Silvestri L, **Cosio MG**, Grassino A. Inspiratory muscle activity as a trigger causing the airways to open in obstructive sleep apnea. *Am Rev Respir Dis* 1987; 135:372-377.
  27. Vincken W, Elleker MG, **Cosio MG**. Determinants of respiratory muscle weakness in stable chronic neuromuscular disorders. *Am J Med* 1987; 82:53-58.
  28. Vincken W, Elleker G, **Cosio MG**. Detection of upper airway muscle involvement in neuromuscular disorders using the flow-volume loop. *Chest* 1986; 90:52-57.
  29. DeSanctis GT, Kelly SM, Saetta MP, Shiner RJ, Stril JL, Hakim TS, **Cosio MG**, King M. Hyporesponsiveness to aerosolized but not infused methacholine in cigarette-smoking dogs. *Am Rev Respir Dis* 1987; 135:338-344.
  30. Eidelman D, Sami M, McGregor M, **Cosio MG**. Combination of theophylline and salbutamol for arrhythmias in severe COPD. *Chest* 1987; 91:808-812.
  31. Pollak PT, Vincken W, Munro IR, **Cosio MG**. Obstructive sleep apnea caused by hemarthrosis-induced micrognathia. *Eur J Respir Dis* 1987; 70:117-121.
  32. Vincken WG, Elleker MG, **Cosio MG**. Flow-volume loop changes reflecting respiratory muscle weakness in chronic neuromuscular disorders. *Am J Med* 1987; 83:673-680.
  33. Vincken W, Ghezzo H, **Cosio MG**. Maximal static respiratory pressures in adults: normal values and their relationship to determinants of respiratory function. *Bull Eur Physiopathol Respir* 1987; 23:435-439.
  34. King M, Wight A, DeSanctis D, El-Azab J, Phillips DM, Angus GE, **Cosio MG**. Mucus hypersecretion and viscoelasticity changes in cigarette-smoking dogs. *Experimental Lung Research* 1989; 15:375-389.
  35. Mitchell TH, **Cosio MG**, Magder SA, Marliss EB. Metabolic responses during and after incremental exercise in normal subjects. *Diabetes, Nutrition & Metabolism* 1989; 3:199-207.
  36. Eidelman D, Ghezzo H, Kim WD, **Cosio MG**. Pressure-volume curves in smokers: comparison with alpha-1 antitrypsin deficiency. *Am Rev Respir Dis* 1989; 139:1452-1458.
  37. Vincken W, **Cosio MG**. Reversibility of upper airway obstruction after levodopa therapy in Parkinson's disease. *Chest* 1989; 96:210-212.
  38. Deschamps A, Levy RD, **Cosio MG**, Marliss EB, Magder S. Effect of saline

- infusion on body temperature and endurance during heavy exercise. *J Appl Physiol* 1989; 66:2799-2804.
39. Mitchell TH, Abraham G, Magder SA, Wing S, **Cosio MG**, Deschamps A, Marliss EB. Intravenous bicarbonate and sodium chloride both prolong endurance during intense cycle ergometer exercise. *Am J Med Sc* 1990; 300:88-97.
40. Eidelman D, Saetta MP, Ghezzo H, Wang NS, Hoidal JR, King M, **Cosio MG**. Cellularity of the alveolar walls in smokers and its relation to alveolar destruction. Functional implications. *Am Rev Respir Dis*. 1990; 141:1547-1552.
41. Eidelman DH, Bellofiore S, Chiche D, **Cosio MG**, Martin JG. Behavior of morphometric indices in pancreatic elastase-induced emphysema in rats. *Lung*, 1990; 168:159-169.
42. Kimoff RJ, Cheong TH, **Cosio MG**, Guerraty A, Levy RD. Pulmonary denervation in humans. Effects on dyspnea and ventilatory pattern during exercise. *Am Rev Respir Dis* 1990; 142:1034-1040.
43. Gibbons WJ, Levy RD, Nava S, Malcolm I, Marin JM, Tardif C, Magder S, Lisbona R, **Cosio MG**. Subclinical cardiac dysfunction in sarcoidosis. *Chest* 1991; 100:44-50.
44. Malo J, **Cosio MG**, Laforge J, Kimoff RJ. Le syndrome des apnées obstructives du sommeil. *L'union Médicale* 1991; 120:458-462.
45. Eidelman DH, Ghezzo H, Kim WD, **Cosio MG**. The Destructive Index and early lung destruction in smokers. *Am Rev Respir Dis*. 1991; 144:156-159.
46. Kim WD, Eidelman DH, Izquierdo JL, Ghezzo H, Saetta MP, **Cosio MG**. Centrilobular and panlobular emphysema in smokers. Two distinct morphologic and functional entities. *Am Rev Respir Dis* 1991; 144:1385-1390.
47. Kimoff RJ, **Cosio MG**, McGregor M. Clinical features and treatment of obstructive sleep apnea. *Can Med Assoc J* 1991; 144:689-695.
48. Petrof BJ, Kimoff RJ, Levy RD, **Cosio MG**, Gottfried SB. Nasal continuous positive airway pressure during sleep facilitates respiratory muscle function in severe chronic obstructive lung disease. *Am Rev Respir Dis* 1991; 143:928-935.
49. Charbonneau M, Falcone T, **Cosio MG**, Levy RD. Obstructive sleep apnea during pregnancy. Therapy and implications for fetal health. *Am Rev Respir Dis* 1991; 144:461-463
50. Cheong TH, Sami M, Kimoff RJ, **Cosio MG**, Levy RD. Cardiac disturbances in patients with severe obstructive sleep apnea. Effect of nasal continuous positive airway pressure. *Am J Nonivas Cardiol* 1992; 6:47-54.

51. Deschamps A, Levy RD, **Cosio MG**, Marliss EB, Magder S. Tympanic temperature should not be used to assess exercise induced hyperthermia. *Clin J Sport Med* 1992; 2:27-32.
52. Small D, Gibbons W, Levy RD, de Lucas P, Gregory W, **Cosio MG**. Exertional dyspnea and ventilation in hyperthyroidism. *Chest* 1992; 101:1268-1273.
53. Levy RD, **Cosio MG**, Gibbons L, Macklem PT, Martin JG. Induction of sleep apnoea with negative pressure ventilation in patients with chronic obstructive lung disease. *Thorax* 1992; 47:612-615.
54. Marin JM, Hussain SNA, Gibbons WJ, Polverino M, Levy RD, **Cosio, MG** Relationship of resting lung mechanics and exercise pattern of breathing in patients with chronic obstructive lung disease. *Chest* 1993; 104:705-711.
55. Tousignant P, **Cosio MG**, Levy RD, Groome PA. Quality adjusted life years added by treatment of obstructive sleep apnea. *Sleep* 1994; 17:52-60.
56. Kimoff RJ, Cheong TH, Olha AE, Charbonneau M, Levy RD, **Cosio MG**, Gottfried SB. Mechanisms of apnea termination in obstructive sleep apnea: role of chemoreceptor and mechanoreceptor stimuli. *Am J Respir Crit Care Med* 1994; 149:707-714.
57. Saetta M, Kim WD, Izquierdo JL, Ghezzo H, **Cosio MG**. Extent of centrilobular and panacinar emphysema in smokers' lungs: pathological and mechanical implications. *Eur Respir J* 1994; 7:664-671.
58. Saetta M, Finkelstein R, **Cosio MG**. Morphological and cellular basis for airflow limitation in smokers. *Eur Respir J* 1994; 7:1505-1515.
59. Charbonneau M, Marin JM, Olha A, Kimoff RJ, Levy RD, **Cosio MG**. Changes in obstructive sleep apnea characteristics through the night. *Chest* 1994; 106:1695-1701.
60. Montón C, Montserrat JM, Parra O, Kimoff J, **Cosio MG**. Disminución del requerimiento del nivel de CPAP tras un tratamiento prolongado en pacientes con síndrome de apneas obstrutivas durante el sueño. *Arch Bronconeumol* 1994; 30: 385-389.
61. Finkelstein R, Ma H-D, Ghezzo H, Whittaker K, Fraser RS, **Cosio MG**. Morphometry of small airways in smokers and its relationship to emphysema type and hyperresponsiveness. *Am J Respir Crit Care Med* 1995; 152:267-276.
62. Siafakas NM, Vermeire P, Pride NB, Paoletti P, Gibson J, Howard P, Yernault JC, Decramer M, Higenbottam T, Postma DS, Rees J on behalf of the Task Force (including **Cosio MG**). ERS - Consensus Statement. Optimal assessment and management of chronic obstructive pulmonary disease (COPD). *Eur Respir J*

- 1995; 8:1398-1420.
63. Maroun MJ, Mehta S, Turcotte R, **Cosio MG**, Hussain SNA. Effects of physical conditioning on endogenous nitric oxide output during exercise. *J Appl Physiol* 1995; 79:1219-1225.
  64. Finkelstein R, Fraser RS, Ghezzo H, **Cosio MG**. Alveolar inflammation and its relation to emphysema in smokers. *Am J Respir Crit Care Med* 1995; 152:1666-1672.
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