

CURRICULUM VITAE  
**JUAN R. SANCHEZ-ESTEBAN, M.D.**

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EDUCATION

Undergraduate: Instituto Cura Valera, Almeria, Spain  
Science, 09/1972-06/1974

Medical School: University de Granada, Spain  
M.D., 09/1974-12/1980

POSTGRADUATE TRAINING

Residency Hospital Materno-Infantil Valle de Hebron, Barcelona, Spain  
Pediatrics, 07/1984-12/1987

Hospital Materno-Infantil Valle de Hebron, Barcelona, Spain  
Child Neurology Unit, 01/1988-06/1988

Hospital Materno-Infantil Valle de Hebron, Barcelona, Spain  
Neonatology Training, 07/1988-06/1991

Junior Attending Hospital Materno-Infantil Valle de Hebron, Barcelona, Spain  
Neonatologist, 07/1991-05/1994

Residency Metropolitan Hospital Center, New York, NY  
Pediatrics, 07/1994-06/1996

Fellowship Women & Infants Hospital of Rhode Island and Brown University  
Providence, Neonatology, 07/1996-06/1999

Fellowship Marine Biological Laboratory, Physiology: The Biochemical and  
Molecular Basis of Cell Signaling-summer course, 2003

## POSTGRADUATE HONORS AND AWARDS

- 1998 Selected News Media Coverage at Annual meeting, Pediatric Academic Societies, New Orleans, LA on poster, "Effects of Mechanical Forces on Pulmonary Epithelial Gene Expression and Differentiation"
- 1998 Young Investigator's Award on Basic Science, 6<sup>th</sup> Annual Hospital Research Celebration. Poster, "Mechanical Forces Regulate Surfactant Protein Gene Expression in Isolated Alveolar Epithelial Cells and Type II Cell Phenotype". Rhode Island Hospital. Providence, RI
- 2001 Selected participant, new Mentoring Program for Beginning Faculty, Brown Medical School
- 2003 Richard B. Salomon Faculty Award, Brown Medical School
- 2004 Parker B. Francis Fellow
- 2008 National Institute of Health, R01 Grant Award
- 2008 American Lung Association, Career Investigator Award (declined)
- 2010 Master of Arts *addendum* degree, Brown University, Providence, RI
- 2021 Recipient of the 2020 AAP CME/CPD Award (Continuing Medical Education/ Continuing Professional Development)

## MILITARY SERVICE

01/1981-12/1983 Navy (Spain)

## PROFESSIONAL LICENSES AND BOARD CERTIFICATION

- 01/1993 Educational Commission for Foreign Medical Graduates, No 0-461-013-5
- 1996-2010 American Board of Pediatrics, No 060146
- 2002-present Rhode Island Medical License, No MD10402
- 2009-present Neonatal-Perinatal Medicine, No 003856
- 2014-present Massachusetts Medical License, No 219814

## ACADEMIC APPOINTMENTS

07/1996-06/2000    Instructor in Pediatrics, Brown Medical School

07/2000-06/2009    Assistant Professor of Pediatrics (Research Scholar)  
The Warren Alpert Medical School of Brown University

07/2009-present    Associate Professor of Pediatrics (Research Scholar)  
The Warren Alpert Medical School of Brown University

## HOSPITAL APPOINTMENTS

01/1991-05/1994    Staff Neonatologist, Clinica Quiron, Barcelona, Spain

01/1991-05/1994    Staff Pediatrician, Clinica Stauros, Barcelona, Spain

07/1994-06/1996    Pediatric Resident, Metropolitan Hospital Center, New York, NY

07/1996-06/1999    Neonatology Fellow, Women and Infants Hospital of Rhode Island

07/1999-present    Staff Neonatologist, Women and Infants Hospital of Rhode Island

07/2003-08/2016    Staff Neonatologist, Pawtucket Memorial Hospital

07/2004-06/2024    Staff Neonatologist, Kent Hospital

06/2012-present    Associate Staff, Rhode Island Hospital/Hasbro Children's Hospital

10/2014-present    Staff Neonatologist, SouthCoast Hospital Group

01/2017-present    Staff Neonatologist, Sturdy Memorial Hospital

06/2018-07/2020    Staff Neonatologist, Landmark Medical Center

03/2020-11/2023    Clinical Associate, Massachusetts General Hospital

10/2023-present    Medical Director, Newborn Nursery Sturdy Memorial Hospital

01/2024-present    Chief of Pediatrics, Sturdy Memorial Hospital

## OTHER APPOINTMENTS

2005-2011    Committee Member, New England Perinatal Society

2006-2016    Chair, Expedite Review Subcommittee of Institutional Review Board

- 2010-2016 Grant Reviewer, Italian Ministry of Health
- 2011 President, New England Perinatal Society
- 2012 Ad Hoc Reviewer, National Institute of Health, Special Emphasis Panel: Studies in Neonatal Resuscitation
- 2012 Ad Hoc Reviewer, National Institute of Health, Lung Injury Repair and Remodeling (LIRR) Study Section
- 2013 Ad Hoc Reviewer, National Institute of Health, Special Emphasis Panel: Studies in Neonatal Resuscitation
- 2013 Ad Hoc Reviewer, National Institute of Health, Special Emphasis Panel: Cardiovascular and Respiratory Sciences
- 2013 Ad Hoc Reviewer, National Institute of Health, Special Emphasis Panel: Atlas of Lung Development Research Centers and Tissue Core
- 2014 Ad Hoc Reviewer, National Institute of Health, Special Emphasis Panel: Biophysical and Biomechanical Aspects of Embryonic Development
- 2015 Ad Hoc Reviewer, National Institute of Health, Special Emphasis Panel: Biophysical and Biomechanical Aspects of Embryonic Development
- 2015 Ad Hoc Reviewer, Department of Defense, Acute Lung Injury Discovery Award (ALI-DA) peer review panel of the FY15 Peer-Reviewed Medical Research Program (PRMRP).
- 2016 Ad Hoc Reviewer, Department of Defense, Acute Lung Injury Discovery Award (ALI-DA) peer review panel of the FY16 Peer-Reviewed Medical Research Program (PRMRP).
- 2017 Ad Hoc Reviewer, National Institute of Health, Point of Care Technologies for the Evaluation and Management of Obstetrics, Neonatal, and Pediatric Critical Care Patients and for Patients with Disorders of Reproductive Tract and Infertility.
- 2018 Ad Hoc Reviewer, National Institute of Health, Special Emphasis Panel: NHLBI SBIR Phase IIB Small Market and Bridge Awards.

#### HOSPITAL COMMITTEES

- 1996-1999 Member, Regional Neonatal Transport Team Committee
- 1996-1999 Member, Special Care Nursery Discharge Plan Committee

1997-1999	Coordinator, Maternal Fetal Medicine Elective, Neonatal-Perinatal Medicine Fellowship
2002-2004	Member, WIH Health Sciences Information Center Committee
2003-2016	Member, Institutional Review Board Committee and Expedite Review Subcommittee
2006-2016	Chair, Expedite Review Subcommittee
2006	Team Leader, Clinical Guideline: Congenital Diaphragmatic Hernia
2006-present	Member, Neonatal Sepsis Task Force
2007	Team Leader, Clinical Guideline: Nasal Ventilation in Newborns
2007	Member, Clinical Guideline: Patent Ductus Arteriosus in Newborns
2007	Member, Multidisciplinary Discharge Planning Tool Committee
2009	Ad hoc Member, Safety Data Monitoring Board Committee
2009	Member, Necrotizing Enterocolitis Task Force
2010	Team Leader, Clinical Guideline: ECMO
2010	Member, Clinical Guideline: Antibiotic Stewardship
2011	Member, Clinical Guideline: Neonatal Hypoglycemia
2012	Member, Bronchopulmonary Dysplasia Multidisciplinary Team
2012	Team Leader, Clinical Guidelines: Enteral Feeding in ELBW Infants
2012	Team Leader, Clinical Guidelines: Respiratory Care of ELBW Infants
2016-present	Member, Practice Variation Group
2018-present	Instructor, Neonatal Resuscitation Program (NRP)
2019-present	Member, Quality Improvement Committee
2021-present	Team leader, Bubble CPAP set-up program
2022-present	Team leader, practice variation respiratory guidelines

## UNIVERSITY AND EXTRAMURAL COMMITTEES

- 2004 Search Committee, Associate Director of the Molecular Biology and Histology Core for COBRE in Perinatal Biology, Women & Infants Hospital
- 2005-present Search Committee, Neonatology Faculty Position, Women & Infants Hospital, Brown Medical School
- 2005-2006 Ad Hoc Grant Reviewer, The Israel Science Foundation
- 2008 Co-Chair, Platform Session, Lung Development, Society for Pediatric Research, Annual Meeting
- 2008 Moderator, Platform Session, New England Conference on Perinatal Research, Annual Meeting
- 2008 Abstracts Reviewer Committee, Eastern Society for Pediatric Research
- 2009 Moderator, Platform Session, Eastern Society for Pediatric Research, Annual Meeting
- 2010 Moderator, Platform Session, New England Conference on Perinatal Research, Annual Meeting
- 2010 Ad Hoc Grant Reviewer, Italian Ministry of Health
- 2011 Reviewer, Workshop proposals, Society for Pediatric Research, Annual Meeting
- 2011 Moderator, Platform Session on Lung Development, Society for Pediatric Research, Annual Meeting
- 2011 Member, Organizing Committee, World Congress on Pediatrics & Gynecology, Philadelphia, PA
- 2012 Thesis Examiner, PhD degree candidate Annie Rene Alison McDougall. Monash University, Australia
- 2012 Ad Hoc Grant Reviewer, Thrasher Research Fund
- 2013 Abstract Reviewer, Society for Pediatric Research, Annual Meeting
- 2013 Scholarship Oversight Committee, Angela Ganon Soto, M.D. Pediatric Endocrinology Fellow.
- 2020-2023 Member, Medical Faculty Executive Committee (MFEC), Brown University
- 2020-2023 Member, Equity Subcommittee, MFEC, Brown University.

## MEMBERSHIP IN SOCIETIES

1988-1994 Catalan Society of Neonatology, Barcelona, Spain  
1995-present American Academy of Pediatrics  
1997-present New England Perinatal Society  
1998-2009 Eastern Society for Pediatric Research  
2000-2020 American Thoracic Society  
2001-2018 American Physiological Society  
2001-2020 The American Society for Cell Biology  
2003-present Society for Pediatric Research

## EDITORIAL BOARD

2011-2020 Pediatrics & Therapeutics: Current Research  
2011-2020 World Journal of Respirology  
2012-2020 ISRN Physiology  
2012-2020 Conference Papers in Medicine  
2013-2020 Frontiers in Neonatology  
2014-2018 Research and Respiratory Medicine  
2015-2020 Symbiosis Online Journal of Pediatrics & Child Care

## JOURNAL PEER REVIEW

Acta Biomaterialia  
American Journal of Perinatology  
American Journal of Physiology Heart and Circulatory Physiology  
American Journal of Physiology Lung Cellular and Molecular Physiology  
American Journal of Physiology Regulatory, Integrative and Comparative Physiology  
American Journal of Reproductive Immunology

American Journal of Respiratory Cell and Molecular Biology  
Annals of Biomedical Engineering  
Annals of the American Thoracic Society  
Apoptosis  
Biochemical Pharmacology  
Biochimica et Biophysica Acta- Molecular Basis of Disease  
Biochimica et Biophysica Acta- Molecular Cell Research  
BMC Cell Biology  
BMC Pregnancy & Childhood  
Cell Biochemistry and Biophysics  
Cell proliferation  
Cellular Physiology and Biochemistry  
Chinese Journal of Traumatology  
Disease Markers  
Experimental Lung Research  
Experimental Physiology  
FASEB Journal  
F1000 Faculty Reviews  
Fetal Diagnosis and Therapy  
Fundamental & Clinical Pharmacology  
Histology and Histopathology  
Innate Immunity  
International Journal of Pediatrics & Child Care  
Journal of Cell Science  
Journal of Histochemistry and Cytochemistry  
Journal of Paediatrics and Child Health  
Journal of Pediatrics



Journal of Perinatology  
Journal of Visualized Experiments (JoVE)  
Lung  
Molecular Biology International  
Pediatrics  
Pediatric Pulmonology  
Pediatric Research  
Physiological Genomics  
PLoS ONE  
Pulmonary Research and Respiratory Medicine  
Respiratory Research  
Respiratory Care  
WIREs Systems Biology and Medicine  
World Journal of Pediatrics

#### ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Roig Quilis M, Sanchez Esteban J, Lombes A, Dimauro S, Navarro F, Balbuena C, Dominguez Luengo C, Sune Garcia J, Macaya Ruiz A. (1991). Clinical and Biochemical heterogeneity of childhood cytochrome C deficiency. Review of the literature. *An. Esp. Pediatr.* 34(2): 115-122. PMID 1645939
2. Sanchez-Esteban J, Tsai SW, Sang J, Qin J, Torday JS, Rubin LP (1998). Effects of Mechanical Forces on Lung-Specific Gene Expression. *Am. J. Med. Sci.* 316(3): 200-4. PMID 9749563
3. Torday JS, Sanchez-Esteban J, Rubin LP (1998). Paracrine Mediators of Mechanotransduction in Lung Development. *Am. J. Med. Sci.* 316(3): 205-8. PMID 9749564
4. Sanchez-Esteban J, Cicchiello L, Tsai SW, Wang Y, Williams LK, Torday JS, Rubin LP (2001). Mechanical Stretch Promotes Alveolar Epithelial Type II Cell Differentiation. *J. Appl. Physiol.* 91: 589-95. PMID 11457769

5. Sanchez-Esteban J, Wang Y, Cicchiello L, Rubin LP (2002). Cyclic Mechanical Stretch Inhibits Cell Proliferation and Induces Apoptosis in Fetal Rat Lung Fibroblasts. *Am. J. Physiol Lung Cell Mol Physiol* 282(3): L448-56. PMID 11839538
6. Sanchez-Esteban J, Wang Y, Gruppuso PA, Rubin LP (2004). Mechanical stretch Induces Fetal Type II Cell Differentiation via an EGFR-ERK Signaling Pathway. *Am.J.Resp.Cell Mol.Biol* 30 (1): 76-83. PMID 12829451
7. Sanchez-Esteban J, Wang Y, Filardo EJ, Rubin LP, Ingber DE (2006). Integrins  $\beta 1$ ,  $\alpha 6$  and  $\alpha 3$  contribute to mechanical strain-induced differentiation of fetal lung type II epithelial cells via distinct mechanisms. *Am. J. Physiol Lung Cell Mol Physiol* 290: L343-50. PMID 16169900
8. Wang Y, Maciejewski BS, Weissman G, Silbert O, Han H, Sanchez-Esteban J. (2006). DNA microarray reveals novel genes induced by mechanical forces in fetal lung type II epithelial cells. *Pediatr.Res* 60: 118-24. PMID 16864689
9. Wang Y, Maciejewski BS, Lee N, Silbert O, McKnight NL, Frangos JA, Sanchez-Esteban J. (2006). Strain-induced fetal type II epithelial cell differentiation is mediated via cAMP-PKA-dependent signaling pathway. *Am. J. Physiol Lung Cell Mol Physiol* 291: L820-7. PMID 16751225
10. Lee H-S, Wang Y, Maciejewski BS, Esho K, Fulton C, Sharma S, Sanchez-Esteban J. (2008). Interleukin-10 Protects Cultured Fetal Rat Type II Epithelial cells from Injury Induced by Mechanical Stretch. *Am. J. Physiol Lung Cell Mol Physiol* 294:L225-32. PMID 18065656
11. Silbert O, Wang Y, Maciejewski BS, Lee H-S, Shaw SK, Sanchez-Esteban J. (2008). Roles of RhoA and Rac1 on actin remodeling, cell alignment and differentiation in fetal type II epithelial cells exposed to cyclic mechanical stretch. *Exp. Lung Res.* 34:663-680. PMID 19085564
12. Wang Y, Maciejewski BS, Soto-Reyes D, Lee H-S, Warburton D, Sanchez-Esteban J. (2009). Mechanical stretch promotes fetal type II epithelial cell differentiation via shedding of HB-EGF and TGF- $\alpha$ . *J Physiol.* 587 (8): 1739-1753. PMCID PMC2683961
13. Wang Y, Maciejewski BS, Drouillard D, Santos M, Hokenson MA, Hawwa RL, Huang Z, Sanchez-Esteban J. (2010). A role for caveolin-1 in mechanotransduction of fetal type II epithelial cells. *Am. J. Physiol Lung Cell Mol Physiol* 298: L775 - L783. PMCID PMC2886604
14. Hawwa RL, Hokenson MA, Wang Y, Huang Z, Sharma S, Sanchez-Esteban J. (2011). IL-10 inhibits inflammatory cytokines released by fetal mouse lung fibroblasts exposed to mechanical stretch. *Pediatr. Pulmonol.* 46(7):640-649. PMCID PMC 3103753

15. Hawwa RL, Hokenson MA, Wang Y, Huang Z, Sharma S, Sanchez-Esteban J. (2011). Differential expression of MMP-2 and -9 and their inhibitors in fetal lung cells exposed to mechanical stretch: Regulation by IL-10. *Lung* 189(4):341-349. PMID 21701831
16. Lu Q, Sakhatsky P, Grinnell K, Newton J, Ortiz M, Wang Y, Sanchez-Esteban J, Harrington E, Rounds S. (2011). Cigarette Smoke Causes Endothelial Barrier Dysfunction via Oxidative Stress-Mediated Inhibition of RhoA and Focal Adhesion Kinase *Am. J. Physiol Lung Cell Mol Physiol* 301(6):L847-57. PMCID 3233834
17. Wang Y, Huang Z, Nayak PS, Sanchez-Esteban J. An experimental system to study mechanotransduction in fetal lung cells. *J Vis Exp* Feb 16;(60). pii: 3543. doi: 10.3791/3543, 2012.
18. Huang Z, Wang Y, Nayak PS, Dammann CE, Sanchez-Esteban J. (2012). Stretch-induced fetal type II cell differentiation is mediated via ErbB1-ErbB4 interactions. *J. Biol. Chem.* 287(22):18091-102. PMCID 3365737
19. Hokenson MA, Wang Y, Hawwa RL, Huang Z, Sharma S, Sanchez-Esteban J. (2013). Reduced IL-10 production in Fetal Type II Epithelial Cells Exposed to Mechanical Stretch is Mediated via Activation of IL-6-SOCS3 Signaling Pathway. *PLoS One* 8(3):e59598.
20. Wang Y, Huang Z, Nayak PS, Mathews BD, Warburton D, Shi W, Sanchez-Esteban J. (2013). Strain-induced differentiation of fetal type II epithelial cells is mediated via integrin  $\alpha_6\beta_1$ -ADAM17 signaling pathway *J. Biol. Chem.* 288:25646-57.
21. Sanchez-Esteban J. (2013). Growth factors and fetal lung development mediated by mechanical forces. *World J. Respirol.* 3(3):44-47.
22. Sanchez-Esteban J. (2013). Mechanical Forces in Fetal Lung Development: Opportunities for Translational Research. *Front Pediatr.* 25;1:51.
23. Giordani VM, DeBenedictus CM, Wang Y, Sanchez-Esteban J. (2014). Epidermal Growth Factor Receptor (EGFR) contributes to fetal lung fibroblast injury induced by mechanical stretch *J. Recept Signal Transduct Re.*34(1):58-63.
24. Nayak PS, Wang Y, Najrana T, Priolo LM, Rios M, Shaw SK, Sanchez-Esteban J. (2015). Mechanotransduction via TRPV4 regulates inflammation and differentiation in fetal mouse distal lung epithelial cells. *Respir Res.* May 27;16:60.
25. Chen X, Rivard L, Naqvi S, Nakada S, Padbury JF, Sanchez-Esteban J, Stopa EG, Lim YP, Stonestreet BS. (2016). Expression and localization of Inter-alpha Inhibitors in rodent brain. *Neuroscience.* Mar 8;324:69-81.
26. Najrana T, Sanchez-Esteban J. (2016). Mechanotransduction as an Adaptation to Gravity. *Front. Pediatr.* 4:140.

27. Najrana T, Ramos LM, Abu Eid R, Sanchez-Esteban J. (2017). Oligohydramnios compromises lung cells size and interferes with epithelial-endothelial development. *Pediatr Pulmonol* (Feb 2. doi: 10.1002/ppul.23662)
28. Gupta A, Sanville J, Menz T, Warner N, Muise AM, Fiedler K, Martín MG, Padbury J, Phornphutkul C, Sanchez-Esteban J., Cerezo CS. (2019). Application of Whole Exome Sequencing in Congenital Secretory Diarrhea Diagnosis. *J Pediatr Gastroenterol Nutr.* Jan 8. doi: 10.1097/MPG.0000000000002258. [Epub ahead of print].
29. Najrana T, Mahadeo A, Abu-Eid R, Kreienberg E, Schulte V, Uzun A, Schorl C, Goldberg L, Quesenberry P, Sanchez-Esteban J. (2020). Mechanical stretch regulates the expression of specific miRNA in extracellular vesicles released from lung epithelial cells. *J Cell Physiol.* 1–14.
30. Najrana T, Ahsan N, Uzun A, Noble L, Tollefson G, Sanchez-Esteban J (2021). Proteomic analysis of a murine model of lung hypoplasia induced by oligohydramnios. *Pediatr Pulmonol* First published: 08 June 2021 <https://doi.org/10.1002/ppul.25525>

#### OTHER PEER-REVIEWED PUBLICATIONS

1. Sanchez-Esteban J. (2012). Learning how mechanical forces regulate lung development: opportunities for translational research. *Pediat Therapeut* 2:e115.
2. Najrana T, Sanchez-Esteban J. (2016). Alveolar Type I epithelial cells: The forgotten cells in fetal lung development and lung injury. *Pulm Res Respir Med Open J.* 2(4): e6-e9.
3. Najrana T, Sanchez-Esteban J. (2016). TRPV4 channels: Potential targets to reduce the incidence of bronchopulmonary dysplasia (BPD). *Pediat Therapeut* 2:e115.
4. Najrana, T, Sanchez-Esteban, J., Abu Eid, R. (2017). The Effect of Oligohydramnios on Tissue and Cellular Morphometry in the Developing Fetal Murine Lung. Conference Paper: 21st International Conference on Control Systems and Computer Science (CSCS) 337-342. 10.1109/CSCS.2017.52.

#### BOOKS OR BOOK CHAPTERS

1. Sanchez-Esteban J. Utilizacion del oxido nitrico en la prematuridad: comentario. De guardia en Neonatologia. 2003b. Ed: Ergon. ISBN:84-8473-213-4.
2. Priolo, LM, Najrana T, Sanchez-Esteban, J: Invasive Mechanical Ventilation in the Pathogenesis of Bronchopulmonary Dysplasia. In V Bhandari (Ed.), Bronchopulmonary Dysplasia. Springer International Publishing, Switzerland, 2016.

#### MANUSCRIPTS IN PREPARATION OR SUBMITTED

1. Sagaser AE, Reeves A, Arnautovic T, Sanchez-Esteban J. Differential diagnosis of absence of lung sliding by point of care ultrasound: Pneumothorax vs pneumomediastinum

## ABSTRACTS

1. Sanchez-Esteban J, Tsai SW, Torday JS, Rubin LP. Effect of Mechanical forces on pulmonary epithelial lung-specific gene expression and differentiation. Accepted for platform presentations at the New England Conference on Perinatal Research, Chatham, MA, 1997; at the Society for Physical Regulation in Biology and Cellular Deformation, Atlanta, GA 1997; at the New England Perinatal Society, Woodstock, VE, 1998; and at the Society for Pediatric Research, New Orleans, LA. May 1998. Ped. Res. 1998; 43:296 A.
2. Sanchez-Esteban J, Cicchiello L, Tsai SW, Williams L, Rehan VK, Rubin LP. Mechanical Stretch-Activated Type II Cell-Fibroblast interactions Regulate Surfactant Protein Gene Expression and Alveolar Remodeling. Accepted for platform presentations at the New England Perinatal Society, Woodstock, VE, 1999 and at the Society for Pediatric Research, San Francisco, CA, 1999. Ped. Res. 1999; 45:319 A.
3. Sanchez-Esteban J, Cicchiello L, Tsai SW, Wang Y, Torday JS, Rubin LP. Mechanical Stretch Inhibits Proliferation and Induces Apoptosis in Isolated Fetal Rat Lung Fibroblasts. Accepted at the 7<sup>th</sup> Annual Research Celebration Poster Presentation, 1999, Providence, RI. Accepted for thematic poster session. American Thoracic Society. Toronto, Canada, 2000. Am. J. Respir. Crit. Care Med. 2000; 161: A567.
4. Sanchez-Esteban J, Wang Y, Rubin LP. Mechanical Stretch Activates Extracellular Signal-Regulated Protein Kinase (ERK), p38 Kinase and Jun-N-Terminal Kinase (JNK) in Fetal Rat Pulmonary Epithelial Cells. Accepted for platform presentations at the New England Perinatal Society, Woodstock, VE, 2001 and at the New England Conference on Perinatal Research, Chatham, MA, 2001. Accepted for poster session presentation, Society for Pediatric Research, Baltimore, MD, 2001. Ped. Res. 2001; 49: 57A.
5. Sanchez-Esteban J, Wang Y, Rubin LP. Role of MAPK Pathways and Cytoskeleton on Stretch-Induced Type II Cells Differentiation. Accepted at the 9<sup>th</sup> Annual Research Celebration Poster Presentation, 2001, Providence, RI. Accepted for platform presentation. Society for Pediatric Research, Baltimore, MD. May 2002. Ped. Res. 2002; 51: 54A.
6. Sanchez-Esteban J. Mechanical stretch activates heterotrimeric-G proteins in fetal rat lung type II cells. Accepted for platform and poster presentations. FASEB Meeting, San Diego, CA. April 2003. FASEB J. 2006; 20:LB41.
7. Sanchez-Esteban J, Wang Y, Rubin LP. Mechanical stretch induces fetal type II cell differentiation via an insulin-like growth factor I receptor (IGF-IR)-ERK pathway. Accepted for platform presentation. Society for Pediatric Research, Seattle, WA. May 2003. Ped. Res. 2003; 53(4): 52A.

8. Sanchez-Esteban J, Wang Y, Rubin LP, Filardo EJ. Stretch-inducible fetal lung epithelial cell differentiation: Role of laminin-integrin receptors. Accepted for platform presentation. Society for Pediatric Research, San Francisco, CA. May 2003. *Ped. Res.* 2004; 55(4): 46A.
9. Lee N, Silbert O, Wang Y, Sanchez-Esteban J. Stretch-induced fetal lung differentiation is mediated via  $\beta_2$  adrenergic receptor-cAMP signaling pathway. Accepted for poster presentation Society for Pediatric Research, Washington DC, CA. May 2005.
10. Silbert O, Wang Y, Maciejewski BS, Shaw SK, Sanchez-Esteban J. Mechanical strain activates Rho and induces stress fiber formation in fetal lung type II epithelial cells. Accepted for platform presentation. Eastern Society for Pediatric Research and New England Perinatal Society. Accepted for poster presentation. Society for Pediatric Research. 2006.
11. Maciejewski BS, Wang Y, McCoy A, Sanchez-Esteban J. Role of caveolin-1 in mechanotransduction of fetal type II epithelial cells. Accepted for platform presentation, Society for Pediatric Research, Toronto, Canada, 2007. (Amanda McCoy received Travel Award from the SPR)
12. Wang Y, Maciejewski BS, Sanchez-Esteban J. Effects of EGFR ligands on fetal type II epithelial cell differentiation. Accepted for poster presentation, Society for Pediatric Research, Toronto, Canada, 2007.
13. Lee H-S, Wang Y, Maciejewski BS, Fulton C, Sanchez-Esteban J. Response of lung fetal type II epithelial cells to injury induced by mechanical distention. Accepted for poster symposium, Society for Pediatric Research, Toronto, Canada, 2007.
14. Wang Y, Maciejewski BS, Sanchez-Esteban J. Mechanical stretch releases EGFR ligands in cultured fetal type II epithelial cells. Accepted for poster presentation at the Rhode Island Research Alliance Symposium, Providence, RI, 2008. Accepted for platform presentation, Society for Pediatric Research, Honolulu, Hawaii, 2008.
15. Hokenson MA, Hawwa RL, Wang Y, Huang Z, Sharma S, Sanchez-Esteban J. Mechanical stretch decreases IL-10 and its receptors in cultured fetal lung type II epithelial cells. Accepted for poster presentation, New England Perinatal Society and Society for Pediatric Research, Vancouver, Canada, 2010. First author received a travel award at the Millennium Conference at Women & Infants Hospital, May, 2010.
16. Hawwa RL, Hokenson MA, Wang Y, Huang Z, Sharma S, Sanchez-Esteban J. Mechanical stretch releases cytokines and matrix-metalloproteinases in cultured mouse fetal lung fibroblasts. Accepted for poster presentation, New England Perinatal Society (first author was awarded for the best poster presentation) and Society for Pediatric Research, Vancouver, Canada, 2010.

17. Huang Z, Wang Y, Hawwa RL, Hokenson MA, Sanchez-Esteban J. Stretch-induced differentiation of fetal type II epithelial cells requires an intact EGFR. Accepted for platform presentation, New England Perinatal Society, Newport, RI, 2010 and Society for Pediatric Research, Denver, CO, 2011.
18. Hawwa RL, Hokenson MA, Wang Y, Huang Z, Sharma S, Sanchez-Esteban J. Differential expression of MMP-2 and -9 and their inhibitors in fetal lung cells exposed to mechanical stretch: Regulation by IL-10. Accepted for platform presentation, New England Perinatal Society, Newport, RI, 2010. Poster presentation, Society for Pediatric Research, Denver, CO, 2011.
19. Wang Y, Huang Z, Hawwa RL, Hokenson MA, Sanchez-Esteban J. ADAM17 Is critical for stretch-mediated differentiation of fetal type II epithelial cells. Poster symposium, American Thoracic Society, Denver, CO, 2011.
20. Wang Y, Huang Z, Nayak P, Sanchez-Esteban J. Stretch-Induced Differentiation of Fetal Lung Type II Cells Is Mediated Via Integrin-TACE Signaling Pathway. Platform Presentation, PAS, Boston, MA, 2012.
21. Nayak P, Wang Y, Chen X, Stonestreet B, Sanchez-Esteban J. TRPV4 regulates fetal lung development and injury. Platform presentation, Society for Pediatric Research, Washington DC, 2013 (First author recipient of the PAS Travel Awards Program for Young Investigators).
22. Priolo LM, Wang Y, Sanchez-Esteban J. HB-EGF is Critical to Accelerate Lung Development. Annual Lifespan Research Symposium. Providence, RI 2014 (First author 2<sup>nd</sup> place Translational Research Award winner)
23. Najrana T, Priolo LM, Sanchez-Esteban J. Characterization of a mouse pulmonary hypoplasia model induced by oligohydramnios. Annual Lifespan Research Symposium. Providence, RI 2015 and Platform presentation, New England Perinatal Society, Newport, RI, 2016.
24. Najrana, T, Goldberg L, Quesenberry PJ, Sanchez-Esteban J. Mechanical Forces Accelerates Fetal Lung Development via Release of Extracellular Vesicles. Platform presentation. Pediatric Academic Societies in San Francisco, CA, May 2017. Poster presentation. International Society for Extracellular Vesicles Annual Meeting in Toronto, Canada, May 2017.
25. Najrana T, Goldberg L, Schorl C, Quesenberry PJ, Sanchez-Esteban J. Mechanical Forces Differentially Regulates EV-miRNAs in Lung Epithelial Cells. Platform Presentation. Australasian Extracellular Vesicles Conference, Sydney, Australia, November, 2018.
26. Najrana T, Mahadeo AM, Abu-Eid R, Mao Q, DePaepe M, Ma B, Zhou Y, Lee C, Elias J, Sanchez-Esteban J. Chitinase 3-like 1 Promotes Fetal Lung Development. Platform Presentation. Pediatric Academic Societies in Baltimore, MD, April 2019.

27. Najrana T, Abu-Eid R, Nagib A, Kreienberg E, Sanchez-Esteban J (2020). Proteomics study of oligohydramnios induced hypoplastic mouse fetal lung. 44 annual New England Perinatal Society meeting. March 27-29, 2020 Newport, RI. Cancelled for COVID19 pandemic.
28. Mahadeo A, Najrana T, Mao Q, Molino J, DePaepe M, Sharma S, Lee CG, Elias JA, Sanchez-Esteban J. Chitinase 3-Like 1 Decreases the Inflammatory Response in Chorioamnionitis. Accepted for Webinar Presentation at the Pediatric Academic Societies meeting 2020.
29. Sagaser A, Tucker R, Sanchez-Esteban J. Accuracy of umbilical venous catheter (UVC) tip position by x-ray. Accepted for platform presentation. Eastern Society for Pediatric Research. Accepted for poster presentation. Pediatric Academic Societies meeting 2024.
30. Sagaser A, Tucker R, Sanchez-Esteban J. Association of respiratory support and abdominal circumference with umbilical venous catheter (UVC) migration. Accepted for platform presentation. Eastern Society for Pediatric Research and New England Perinatal Society. Accepted for poster presentation. Pediatric Academic Societies meeting 2024.



## INVITED PRESENTATIONS

1. "Cholesterol ester storage disease". Hospital Materno-Infantil Valle de Hebron, Barcelona 1986.
2. "Treatment of bronchopulmonary dysplasia". Hospital Materno-Infantil Valle de Hebron, Barcelona 1987.
3. "CESD: Presentation of three cases". Annual Meeting Spanish Society of Pediatrics, 1987.
4. "Partial deficit of COX in infants. Clinical evolution". Neuropediatric Annual Meeting 1988.
5. "Differential diagnosis and treatment of neonatal respiratory distress". Course of continued training in Pediatrics, Clinica Quiron, Barcelona 1992.
6. Problem round: Thymic cysts. Metropolitan Hospital, NY. March 1995.
7. Problem round: Hepatitis B infection and renal disease. Metropolitan Hospital, NY. June 1995.
8. Problem round: Intussusception. Metropolitan Hospital, NY. March 1996.
9. "Congenital diaphragmatic hernia". Perinatal Management Conference, Women & Infants Hospital, RI. May 1997.
10. "Perinatal Hypoxia Ischemia". Perinatal Management Conference, Women & Infants Hospital, RI. June 1997.
11. "Cystic Adenomatoid Malformation". Perinatal Management Conference, Women & Infants Hospital, RI. May 1998.
12. "Mechanical Forces in Lung Development". Pulmonary Research Conference Brown University, RI. January 1999.
13. "Congenital Adrenal Hyperplasia". Perinatal Management Conference, Women & Infants Hospital, RI. April 1999.
14. "The Effect of Stretch on Lung Development". Pediatric Research colloquium. Women & Infants Hospital, RI. May 1999.
15. "The new BPD". Perinatal Management Conference, Women & Infants Hospital, RI. January 2000.
16. "Respiratory Distress in Newborns: Differential Diagnosis". Pawtucket Rounds. Pawtucket Memorial Hospital. RI. May 2000.

17. "Sepsis in Neonates". Pawtucket Rounds. Pawtucket Memorial Hospital. RI. May 2000.
18. "Neonatal Hypoglycemia". Pawtucket Rounds. Pawtucket Memorial Hospital. RI. August 2000.
19. "Meconium Aspiration Syndrome". Physiologic Lectures. Women & Infants Hospital RI. November 2000.
20. "An update on surfactant therapy". Perinatal Management Conference, Women & Infants Hospital, RI. December 2000.
21. "A clinical case discussion". Pawtucket Rounds. Pawtucket Memorial Hospital. RI. February 2001.
22. "Cyanosis in newborns: differential diagnosis". Pawtucket Rounds. Pawtucket Memorial Hospital. RI. February 2001.
23. "Neonatal Thrombosis". Perinatal Management Conference, Women & Infants Hospital, RI. June 2001.
24. "Neonatal hyperbilirubinemia". Pawtucket Rounds. Pawtucket Memorial Hospital. RI. July 2001.
25. "Mechanotransduction in stretch-induced fetal type II cell differentiation" Pulmonary Research Conference. Brown University. September 2001.
26. "Can we improve the nutrition of our ELBW infants? Perinatal Management Conference, Women & Infants Hospital, RI. October 2001.
27. "A fetus with ascitis and pleural effusions" Multidisciplinary Antenatal Diagnosis and Management Conference, Women & Infants Hospital, RI. December 2001.
28. "Fetal Lung Development". Physiologic lectures. Women & Infants Hospital. RI. February 2002.
29. "Importance of proteins in ELBW infant's nutrition" Core Curriculum Series to pediatric residents. Hasbro Children's Hospital. RI. February 2002.
30. "Neurobehavioral deficits in preemies with normal head ultrasounds". Perinatal Management Conference, Women & Infants Hospital, RI. May 2002.
31. "Neonatal Sepsis". Pawtucket Rounds. Pawtucket Memorial Hospital. RI. July 2002.
32. "Early Nasal CPAP in VLBW Infants". Perinatal Management Conference, Women & Infants Hospital, RI. August 2002.

33. "Early Nasal CPAP to prevent BPD in VLBW Infants". Core curriculum series to pediatric residents. Hasbro Children's Hospital. RI. December 2002.
34. "Neonatal Coxsackie B virus infection" Perinatal Management Conference, Women & Infants Hospital, RI. April 2003.
35. "The "new" BPD" Core curriculum series to pediatric residents. Hasbro Children's Hospital. RI. 2003, 2005 and 2006.
36. "Regulation of Fetal Type II Differentiation by Mechanical Stretch". Pediatric Research colloquium. Women & Infants Hospital. RI. December 2003.
37. "Perinatal pulmonary development". Physiologic lectures. Women & Infants Hospital. RI. February 2004.
38. "Regulation of Fetal Type II Differentiation by Mechanical Stretch". The Fourth Frank G. DeLuca Distinguished Lectureship in Pediatric Surgical Sciences. Rhode Island Hospital. March 2004.
39. "Mechanical Forces in Fetal Lung Development". Rhode Island Society for Respiratory Care. 20<sup>th</sup> Annual Convention. Newport, RI. March 2004.
40. "Mechanoreceptors in fetal lung development" Pulmonary Research Conference. Brown University. March 2005.
41. "Respiratory management of the newborn: My visit to Columbia University" Perinatal Management Conference, Women & Infants Hospital, RI. June 2005.
42. "Role of cAMP-PKA signaling pathway in mechanotransduction of fetal type II epithelial cells". Pediatric Research colloquium. Women & Infants Hospital, RI. February 2006.
43. "A 21-week fetus with very severe diaphragmatic hernia" Multidisciplinary Antenatal Diagnosis and Management Conference, Women and Infants' Hospital, Rhode Island. March 2006.
44. "Are we treating premature babies with Patent Ductus Arteriosus (PDA) appropriately? Perinatal Management Conference, Women & Infants Hospital, RI. June 2006.
45. "Mechanotransduction in fetal type II epithelial cell differentiation". The Saban Research Institute. Los Angeles, CA. October 2006.
46. "Synchronized Nasal Intermittent Positive Pressure Ventilation (SNIPPV)". Physiologic lectures to neonatal fellows. Women & Infants Hospital, RI. November 2006.
47. "Neonatal Respiratory Distress" Core curriculum series to pediatric residents. Hasbro Children's Hospital. RI. February 2007.

48. "Outcomes of Congenital Diaphragmatic Hernia Management; a Review of the CDH Management Protocol". Perinatal Management Conference, Women & Infants Hospital, RI. March 2007.
49. "Lung morphogenesis". Physiologic lectures to neonatal fellows. Women & Infants Hospital. RI. June 2007.
50. "Meconium Obstruction in Extremely Low Birth Weight Neonates: A Forgotten Disease?". Perinatal Management Conference, Women & Infants Hospital, RI. July 2007.
51. "Mechanical stretch releases EGFR ligands in cultured fetal type II epithelial cells". Pediatric Research colloquium. Women & Infants Hospital. RI. February 2008.
52. "Mechanotransduction and Lung Development: Mechanisms and Models". Rhode Island Research Alliance Symposium, Providence, RI. June 2008.
53. "Management of bronchopulmonary dysplasia during the neonatal period and beyond". Perinatal Management Conference, Women & Infants Hospital, RI. October 2008.
54. "Neonatal Jaundice". Pediatric Grand Rounds, Memorial Hospital, Pawtucket, RI. January 2009.
55. "Nasal Intermittent Positive Pressure Ventilation (NIPPV)". Physiologic lectures to neonatal fellows. Women & Infants Hospital. RI. March 2009.
56. "Mechanotransduction in Fetal Lung Development: Mechanisms and Models". The Frank G. DeLuca Distinguished Lecturer in Pediatric Surgical Sciences. Rhode Island Hospital. June 2009.
57. "Preemie medical management" Core curriculum series to pediatric residents. Hasbro Children's Hospital. RI. September 2009.
58. "Role of EGFR ligands in stretch-induced differentiation of fetal type II epithelial cells". Floating Hospital for Children, Tufts University, Boston, MA. October 2009.
59. "Neonatal Jaundice". Pediatric Grand Rounds, Memorial Hospital, Pawtucket, RI. November 2009.
60. "Strategies to minimize lung injury in extremely-low-birth-weight infants". University of Illinois, Chicago, IL. December 2009.
61. "Stretch-induced differentiation of fetal type II epithelial cells via the EGFR: Mechanisms and models". University of Illinois, Chicago, IL. December 2009.

62. "Translational Research: Potential role of IL-10 to decrease inflammation in premature infants exposed to mechanical ventilation". Perinatal Management Conference, Women & Infants Hospital, RI. July 2010.
63. "Role of the EGFR in mechanotransduction during fetal lung development". Rhode Island Research Alliance Symposium, Providence, RI. October 2010.
64. "Neonatal Respiratory Distress". Pediatric Grand Rounds, Memorial Hospital, Pawtucket, RI. February 2011.
65. "Stretch-induced differentiation of fetal type II epithelial cells requires an intact EGFR". COBRE meeting September 2011.
66. "Lung morphogenesis" Core curriculum series to neonatology fellows. Women & Infants Hospital, RI. September 2011.
67. "Stretch-induced differentiation of fetal type II epithelial cells requires an intact EGFR". Pediatric Research Colloquium. Women & Infants Hospital, RI. October 2011.
68. "Role of the ErbB family of receptors in mechanotransduction during fetal lung development". The Saban Research Institute. Los Angeles, CA. November 2011.
69. "Role of the ErbB family of receptors in mechanotransduction during fetal lung development". Pulmonary Research Seminars, Rhode Island Hospital, March 2012.
70. "Role of EGFR in mechanotransduction during fetal lung development". The Frank G. DeLuca Distinguished Lecturer in Pediatric Surgical Sciences. Rhode Island Hospital. October 2012.
71. "Guidelines for the Respiratory Care of extremely-low-birth-weight- infants (ELBWI)". Perinatal Management Conference, Women & Infants Hospital, RI. December 2012.
72. "Career paths in academic neonatology". The Wheeler School. Providence, RI. January 2013.
73. "Enteral Feeding Guidelines for ELBWI". Perinatal Management Conference, Women & Infants Hospital, RI. February 2013.
74. "Inhaled nitric oxide in newborns: Are we too restrictive?". Perinatal Management Conference, Women & Infants Hospital, RI. October 2014.
75. "Strain-induced differentiation of fetal type II epithelial is mediated via integrin-TACE signaling pathway". Pediatric Research Colloquium. Women & Infants Hospital of RI. March 2014.

76. "Strain-induced differentiation of fetal type II epithelial is mediated via integrin-TACE-EGFR signaling pathway". Pulmonary Research Seminars, Rhode Island Hospital, November 2015.
77. "Feeding difficulties in newborn" Perinatal Management Conference, Women & Infants Hospital, RI. December 2015.
78. "Mechanotransduction in fetal lung development" NIH IDeA symposium. Providence, RI. March 2016.
79. "Role of Extracellular vesicles in fetal lung development". Gordon Research conference: Extracellular Vesicles. Newry, ME September 2016.
80. "Role of Extracellular Vesicles in Fetal Lung Morphogenesis Mediated by Mechanical Signals". Circulating Biomarkers World Congress 2017. Boston MA. March 2017
81. "Role of Extracellular Vesicles in Fetal Lung Development Mediated by Mechanical Signals". The Frank G. DeLuca Distinguished Lecturer in Pediatric Surgical Sciences. Rhode Island Hospital. June 2017
82. "Fetal Exposure to Environmental Toxicants". Perinatal Management Conference, Women & Infants Hospital, RI. October 2017.
83. "Antibiotic use in the NICU: Current Trends". Perinatal Management Conference, Women & Infants Hospital, RI. February 2019.
84. "Chitinase 3 like 1 promotes fetal lung development". Pediatric Research Colloquium. Women & Infants Hospital of RI. March 2019.
85. "Mechanical stretch differentially regulates the expression of specific miRNA in the extracellular vesicles released from lung epithelial cells". The Stem Cells and Aging Centers of Biomedical Research Excellence (COBRE). Extracellular Vesicles Symposium. Providence, RI March 2019.
86. "The Bubble CPAP Program in the NICU at WIH: Update + The Plan Moving Forward". Perinatal Management Conference, Women & Infants Hospital, RI. March 2022.

## GRANTS

1. Spanish Training Research grant 1984-1988
2. Mechanotransduction and Lung Alveolar Differentiation  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
The Rhode Island Foundation 01/2003-12/2003  
\$7,000
3. Mechanotransduction and Lung Alveolar Differentiation  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Brown Medical School 03/2003-02/2004  
\$14,750
4. Mechanotransduction and Lung Alveolar Differentiation  
Principal Investigator Project III: Juan Sanchez-Esteban, M.D.  
NIH 10/2003-06/2008  
1 P20 RR018728-01 COBRE for Perinatal Biology  
\$745,990
5. Mechanotransduction and Lung Alveolar Differentiation  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Parker B. Francis Fellowship Program 07/2004-06/2007  
\$126,000
6. Mechanotransduction and Lung Alveolar Differentiation  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
NIH (1 R01 HD052670) 05/2008-04/2014  
\$1,466,870.
7. Strain-induced release of EGFR ligands during fetal lung development  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
American Lung Association 07/2008-06/2011  
Career Investigator Award  
\$180,000 (declined for scientific overlap with NIH R01 grant)
8. Role of interleukin 10 (IL-10) in mechanical stretch-induced lung injury  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Dept of Pediatrics 10/2008-10/2011  
Hasbro Children's Hospital, RI.  
\$15,000/year
9. Effects of force and hormonal environment on cervical matrix  
Role: Collaborator (PI: Edward Chien)  
NIH (1R03HD062683-01) 07/2010-06/2012  
\$74,200
10. Role of TRPV4 Calcium Channels in Mechanical Injury of Fetal Lung Cells  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Oh Zopfi Pilot Project, Dept of Pediatrics 04/01/2013-03/31/2014  
\$10,000

11. HB-EGF is a critical growth factor to accelerate lung development  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Oh Zopfi Pilot Project, Dept of Pediatrics \$16,000 04/01/2014 03/31/2015
12. Role of Chitinase 3-Like 1 in fetal lung development  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Oh Zopfi Pilot Project, Dept of Pediatrics \$25,000 05/01/2015 04/30/2016
13. Role of exosomes in fetal lung development  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
NIH, COBRE for Perinatal Biology (pilot project) \$25,000 05/01/2016-05/30/2017
14. Role of Chitinase 3-Like 1 in Chorioamnionitis  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Oh Zopfi Pilot Project, Dept of Pediatrics \$26,000 06/01/2016-05/31/2017
15. Role of Chitinase 3-Like 1 in Chorioamnionitis and Fetal Lung Injury  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Constance A Howes Women's Health Innovation Fund \$30,000 01/01/2017-12/31/2017
16. Role of Chitinase 3 like 1 in bronchopulmonary dysplasia  
Principal Investigator: Juan Sanchez-Esteban, M.D.  
Oh Zopfi Pilot Project, Dept of Pediatrics \$20,000 06/01/2018-05/31/2019

### TRAINING GRANTS

NIH Training Grant for Perinatal Biology  
Role: Mentor (PI: J.F. Padbury)  
Term: 2004-2005

NIH Short-Term Training Program to Increase Diversity in Health-Related Research  
(5R25HL088992-02)  
Role: Faculty Mentor (PI: S. Rounds, M.D.)  
Term: 2004-2012

NIH Brown CardioPulmonary Research Training Program (1T32HL094300-01)  
Role: Mentor (PI: G. Koren, M.D.)  
Term: 2008-2013



## UNIVERSITY TEACHING ROLES

- 2000 Preceptor in Physical Diagnosis-Neonatology Section (6 students)
- 2000 Lecture Series-Newborn Issues entitled: "Respiratory Distress of the Newborn: Differential diagnosis in the context of lung development" (12 students)
- 2001 Preceptor in Physical Diagnosis-Neonatology Section (3 students)
- 2001 Lecture Series-Newborn Issues entitled: "Neonatal Respiratory Distress" (12 students)
- 2002 Lecture Series-Newborn Issues entitled: "Neonatal Hyperbilirubinemia" (12 students)
- 2002 Preceptor in Physical Diagnosis-Neonatology Section (2 students)
- 2003 Facilitator problem-based learning sessions, Biochemical course directed by Dr. Gruppuso (10 students per group)
- 2003 Lecture Series-Newborn Issues entitled: "Neonatal Hyperbilirubinemia" (12 students).
- 2004 Facilitator problem-based learning sessions, Biochemical course directed by Dr. Gruppuso (10 students per group)
- 2004 Lecture Series-Newborn Issues entitled: "Neonatal Hyperbilirubinemia" (12 students)
- 2005 Facilitator problem-based learning sessions, Biochemical course directed by Dr. Gruppuso (10 students per group)
- 2006 Preceptor in Physical Diagnosis-Neonatology Section (3 students)
- 2007 Lecture Series-Newborn Issues entitled: "Neonatal Respiratory Distress" (12 students)
- 2005-present Medicine in Action Program (Brown Medical School)

## LABORATORY TRAINEES/MENTORSHIP

- 2002-2003 Gaia Weissmann, M.D., University of Bologna, Italy
- 2004 Nicole Lee, Undergraduate, Xavier University of Louisiana
- 2004-2007 Ophira Silbert, M.D., Neonatology Fellow

2005 Samuel Haile, Undergraduate, Jackson State University

2006 Kenny H. Esho, Undergraduate, North Carolina Agricultural and Technical State University

2006 Amanda McCoy, Medical Student, West Virginia University  
Received Travel Award from the SPR-May 2007

2006 Hyeon-Soo Lee, M.D., Ph.D. Visiting Professor, Kangwon National University College of Medicine, Chuncheon, South Korea

2007 Dariana Soto-Reyes, Undergraduate, University of Puerto Rico

2008 Melissa Santos, Undergraduate, University of Maryland.  
Oral presentation, Annual Biomedical Research Conference for Minority Students, November 2008, Orlando, FL awarded by the American Society of Microbiology.

2008-2011 Michael A. Hokenson, M.D., Neonatology Fellow

2009-2011 Renda L. Hawwa, Ph.D., Postdoctoral Fellow

2009-2012 Zheping Huang, Ph.D., Postdoctoral Fellow

2010-2013 Pritha Nayak, M.D., Neonatology Fellow

2010-2011 Victoria Giordani, Undergraduate, Brown University, thesis project

2011-2012 Christina DeBenedictus, Undergraduate, Brown University

2012 Tamir Mickens, Undergraduate, Morehouse College, Atlanta

2013 Mayra Rios, Undergraduate, Canada College, California

2013-2016 Lauren Priolo, M.D., Neonatology Fellow

2014-2020 Tanbir Najrana, Ph.D., Postdoctoral Associate, currently Instructor in Pediatrics, Brown University

2015 Alyssa Gonzalez, Undergraduate, Brown University

2015-2016 Edgar E. Garcia-Lopez, Undergraduate, Brown University, thesis project

2016-2017 John Twomey-Kozak, Undergraduate, Brown University

2016-2017 Catherine Seitz, Undergraduate, Brown University

- 2017 Jennifer Caruso, Undergraduate, Brown University
- 2017 Sofia Echeverria, Undergraduate, Brown University
- 2017 Yun Ke Du, Undergraduate, Brown University
- 2017-2020 Anshu Mahadeo, M.D., Neonatology Fellow
- 2022-2023 Tamara Arnautovic M.D., Neonatology Fellow
- 2023-present Anna Sagaser M.D., Neonatology Fellow (her POCUS project is focused on assessing factor influencing UVC migration and accuracy of x-ray when compared to ultrasound)
- 2023-present Ashley Reeves M.D., Neonatology Fellow (her project is related to identification of hemodynamically significant PDA by screening cardiac ultrasound and by lung ultrasound score)

#### HOSPITAL TEACHING ROLES

- 1988-1989 Seminars to house officers and students. Hospital Materno Infantil Valle de Hebron. Barcelona, Spain.
- 1991-1994 Seminars to nurses on common problems in Neonatology.
- 1996-present Bedside teaching and seminars to fellows, house officers, medical students, and neonatal nurse practitioners.
- 2020-present Instructor Neonatal Resuscitation Program (NRP) for staff of the hospital participating in newborn care and requiring certification in NRP.
- 2020-present Bedside teaching to residents, fellows, neonatal nurse practitioners and attendings on the use of point-of-care ultrasound (POCUS) in Neonatology.
- 2021-present Implementation of the bubble CPAP program in our NICU. This included didactic presentations and mannequin training to bedside nurses, nurse practitioners, residents, fellows and attendings. In addition, daily bubble CPAP rounds to provide specific feedback to the bedside nurse and team taking care of a particular patient on bubble CPAP.