Cristina Maria Alvira, MD

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EDUCATION

1995-1999	Tufts University, M.D.
1991-1995	Tufts University, B.S., *magna cum laude*

PROFESSIONAL APPOINTMENTS

2010-present	Assistant Professor of Pediatrics, Stanford University
2009-2010	Acting Assistant Professor of Pediatrics, Stanford University
2005-2009	Instructor of Pediatrics, Stanford University
2002-2005	Fellow in Pediatric Critical Care Medicine, Stanford University
2000-2002	Resident in Pediatrics, Stanford University, Stanford, CA
1999-2000	Intern in Pediatrics, Stanford University, Stanford, CA

HONORS AND AWARDS

2015-2020	Tashia and John Morgridge Faculty Scholar Award-CHRI at Stanford
2013	AJP-Lung Outstanding Junior Investigator Award
2012	SPR Young Investigator Coaching Program
2008	AHA Fellow to Faculty Transition Award
2007	Pediatric Clerkship Honor Roll for Teaching
2004	Society for Pediatric Research Travel Award
2004	Western Society for Clinical Investigation Travel Award
1999	Louise Weinstein Prize for Excellence in Clinical Medicine
1998	AMWA Janet M. Glasgow Memorial Achievement Citation
1998	Alpha Omega Alpha National Honor Society

ADMINISTRATIVE APPOINTMENTS

2015-present	Associate Fellowship Director-Research, Pediatric Critical Care Medicine
2015	Leland Scholars Program Faculty Mentor
2015-present	Genetics Faculty Search Committee Member
2014-present	Pediatric Pulmonary Faculty Search Committee Member
2007-2009	Associate Fellowship Director, Pediatric Critical Care Medicine
2007-2010	Pediatric Pulmonary Fellowship Search Committee Member
2006-2011	Blood Transfusion Committee Member, Lucile Packard Children's Hospital

PROFESSIONAL MEMBERSHIPS

2016-present	American Physiological Society
2012-present	Society for Pediatric Research
2007-2011	American Heart Association
2007-2010	American Thoracic Society

BOARD CERTIFICATION

American Board of Pediatrics

American Board of Pediatrics, Sub-board of Pediatric Critical Care Medicine

PEER REVIEW AND EDITORIAL SERVICE

Member, Editorial Board, American Journal of Physiology- Lung Cellular and Molecular Physiology
February 2014-present

Member, Editorial Board, Frontiers in Pulmonary Medicine
April 2014-present

Early Career Reviewer, National Institute of Health-NHLBI-Lung Injury, Repair, Remodeling (LIRR) Study Section, June 2013

Early Career Reviewer, National Institute of Health NHLBI-Respiratory Integrative Biology and Translational Research (RIBT) Study Section, October 2012

Ad Hoc Grant Reviewer, Medical Research Council, United Kingdom

Grant Reviewer, Child Health Research Institute at Stanford University

Reviewer, PLOS One

Reviewer, Journal of Translational Medicine

Reviewer, American Journal of Physiology- Lung Cellular and Molecular Physiology

Reviewer, American Journal of Physiology- Heart and Circulatory Physiology

Society for Pediatric Research- Invited Abstract Reviewer-Pulmonary Circulation

LEADERSHIP ROLES AT SCIENTIFIC CONFERENCES

Moderator, Pulmonary Vascular Biology Platform Session, Pediatric Academic Society Annual Meeting, Washington D. C. May 2013

Moderator, Cardiac and Pulmonary Development Platform Session, Pediatric Academic Society Annual Meeting, San Diego, May 2015

Moderator, Critical Care Medicine Platform Session, Pediatric Academic Society Annual Meeting, San Diego, May 2015

Moderator, Neonatal Cardiac Physiology Poster Discussion Session, Pediatric Academic Society Annual Meeting, Baltimore, May 2016

RESEARCH SUPPORT

ACTIVE

09/2015-08/2020 Stanford Child Health Research Institute
Tashia and John Morgridge Endowed Faculty Scholar Award
"Essential Physiologic Roles for Nuclear Factor Kappa-B During Lung Development"
Role: Faculty Scholar (PI)
Annual Direct Costs: $100,000

05/2014-03/2019 National Institute of Health, NHLBI- R01HL122918-01
"Novel Molecular Mechanisms Regulating Postnatal Pulmonary Angiogenesis"
Role: Principal Investigator (PI)
Annual Direct Costs: $ 297,760

07/2014-06/2018 Burroughs Wellcome Fund, Preterm Birth Initiative Program
"Myometrial Smooth Muscle Cell TRPV Channel Activity Modulates Contractility"
Role: Co-Investigator (Co-I)
Annual Direct Costs: $150,000

01/2015-12/2016 Child Health Research Institute Postdoctoral Fellowship Award
"Endothelial-specific loss of IKKβ impairs pulmonary endothelial angiogenesis and alveolarization"
Role: Faculty Research Mentor
Annual Direct Costs: $50,000

07/2013-06/2016 Child Health Research Institute Euphrat Fellowship
"Secreted Factors in the Lung Microenvironment Promote Pulmonary Angiogenesis"
Role: Faculty Research Mentor
Annual Direct Costs: $50,000

PENDING

09/2016-08/2021 National Institute of Health, R01HD083322-01A1
"A Novel Role for TRPV is Mediating Myometrial Contractility and Inflammation"
Role: Co-Principal Investigator (Co-PI)
Annual Direct Costs: $418,200

COMPLETED

03/2014-02/2016 Stanford Child Health Research Institute
"Transforming Growth Factor Beta Induced Protein Promotes Pulmonary Angiogenesis in the Developing Lung by Activating NFκB and Wnt Signaling in the Pulmonary Endothelium"
Transdisciplinary Initiative Program Grant
Role: Principal Investigator (PI)
Annual Direct Costs: $100,000

01/2014-5/2014 American Heart Association, Beginning Grant in Aid
"*A Role for Nuclear Factor Kappa B in Promoting Pulmonary Angiogenesis*"
Award #: 1BGIA18980070
Role: Principal Investigator (PI)
Annual Direct Costs: $65,000
Note: Grant was relinquished early by the PI secondary to overlap with the awarded NHLBI-R01HL122918-01

RESEARCH SUPPORT (CONT.)

COMPLETED

07/2008-06/2013 American Heart Association, Fellow to Faculty Transition Award
"The Role of TGF-β in Inflammatory Aneurysm Formation"
Award #: 0875001N
Role: Principal Investigator (PI)
Annual Direct Costs: $ 132,000

10/2009-09/2011 National Institute of Health: Supporting New Faculty Recruitment to Enhance Research Resources through Biomedical Research Core Centers
"Postnatal Lung Development: Mechanisms of Molecular and Vascular Development."
Award #: 1P30HL101315-01
Role: Newly Independent Investigator (NII)
Annual Direct Costs: $ 500,000

PEER REVIEWED PUBLICATIONS

1. **Alvira CM**, Abate A, Yang G, Dennery PA, and Rabinovitch M. "Nuclear factor kappa B activation in neonatal mouse lung protects against lipopolysaccharide-induced inflammation." *Am J Respir Crit Care Med* 2007; 175:805-815. PMID: 17255561

2. Bland RD, Ertsey R, Mokres LM, Xu L, Jacobson BE, Jiang S, **Alvira CM***, Rabinovitch M, Shinwell ES, and Dixit A. "Mechanical ventilation uncouples synthesis and assembly of elastin and increases apoptosis in lungs of newborn mice. Prelude to defective alveolar septation during lung development?" *Am J Physiol Lung Cell Mol Physiol. 2008 Jan;294(1):L3-14* PMID: 17934062. *Designed and performed experiments to evaluate apoptosis and proliferation in situ, performed statistical analysis, drafted relevant methods and results portions of the manuscript.

3. Spiekerkoetter E, **Alvira CM***, Kim YM, Bruneau A, Pricola KL, Wang L, Ambarsumian N, and Rabinovitch M. 2008. "Reactivation of gammaHV68 induces neointimal lesions in pulmonary arteries of S100A4/Mts1-overexpressing mice in association with degradation of elastin." *Am J Physiol Lung Cell Mol Physiol* 2008; 294:L76-289. PMID: 18083765. *Designed and performed experiments to detect elastin breakdown and leukocyte infiltration in situ, performed statistical analysis, drafted relevant methods and results portions of the manuscript.

4. Hansmann G, de Jesus Perez VA, Alastalo, TP, **Alvira, CM***, Guignabert C, Bekke, JM, Schellong S, Urashima T, Wang L, Morrell NW, and Rabinovtich M. 2008. "An antiproliferative BMP-2/PPARgamma/apoE axis in human and murine SMCs and its role in pulmonary hypertension." *J Clin Invest* 2008; 118:1846-1857. PMID: 18382765. *Designed and performed experiments to determine arterial muscularization and differences in proliferation in situ, performed statistical analysis, drafted relevant methods and results portions of the manuscript.

5. Ying L, Lau A, **Alvira CM***, West R, Cann GM, Zhou B, Kinnear C, Jan E, Sarnow P, Va de Rijn M, Rabinovitch M. "LC3 Mediated fibronectin mRNA translation Induces fibrosarcoma growth by increasing connective tissue growth factor." *J Cell Sci* 2009; April 14. PMID: 19366727. *Designed and performed RNA-binding assays, performed statistical analysis, drafted relevant methods and results portions of the manuscript.

6. Guignabert C, **Alvira CM***, Alastalo TP, Sawada H, Hansmann G, Zhao M, Wang L, El-Bizri N, Rabinovitch M. "Tie2-mediated loss of peroxisome proliferator-activated receptor-g in mice causes PDGF-receptor b-dependant pulmonary arterial muscularization. *Am J Physiol Lung Cell Mol Physiol* 2009; Oct 2. PMID: 19801450. *Designed and performed gene expression assays on primary endothelial cells, and drafted significant portions of the original manuscript.

PEER REVIEWED PUBLICATIONS (CONT.)

7. Mokres LM, Parai K, Hilgendorff A, Ertsey R, **Alvira CM***, Rabinovitch M, Bland RD. "Prolonged mechanical ventilation with air induces apoptosis and causes failure of alveolar septation and angiogenesis in lungs of newborn mice." *Am J Physiol Lung Cell Mol Physiol* 2010 Jan;298(1):L23-35. Epub 2009 Oct 23. PMID: 19854954. *Designed and performed experiments to evaluate apoptosis and proliferation in situ, performed statistical analysis, drafted relevant methods and results portions of the manuscript.

8. **Alvira CM**, Sukovich DJ, Lyu SC, Umesh A, Cornfield DN. "Rho kinase activity modulates postnatal adaptation of the pulmonary circulation through separate effect on pulmonary artery endothelial and smooth muscle cells." *Am J Physiol Lung Cell Mol Physiol*. 2010 Dec;299(6):L872-8. Epub 2010 Aug 13. PMID: 20709731.
Faculty of 1000 Recommended*

9. **Alvira CM**, Guignabert C, Kim YM, Wang L, Duong TT, Yeung RS, Li D, Rabinvitch M. "Transforming growth factor beta inhibition increases matrix metallproteinase-9 activity and enhances elastin degradation in a murine model of kawasaki disease." *Am J Pathol. 2011 Mar; 178(3):1210-20* PMID: 2135637

10. Kim YM, Haghighat L, Spiekerkoetter E, Sawada H, **Alvira CM***, Wang L, Acharya S, Rodriguez-Colon G, Orton A, Zhao M, and Rabinovitch M. "Neutrophil elastase is produced by pulmonary artery smooth muscle cells and is linked to neointimal lesions." *Am J Pathol. 2011* Sep;179(3):1560-72. Epub 2011 Jul 19.PMID: 21763677. *Designed and performed experiments to detect elastin breakdown and leukocyte infiltration in situ, performed statistical analysis, drafted relevant methods and results portions of the manuscript.

11. Ahn YT, Kim YM, Adams ES, Lyu SC, **Alvira CM***, and Cornfield DN. "Hypoxia inducible factor 1a regulates KCNMB1 expression in human pulmonary artery smooth muscle cells." *Am J Physiol Lung Cell Mol Physiol*. 2012 Feb 1;302(3):L352-9. PMID 22114151. *Participated extensively in the design of experiments, supervised the technical execution of experiments, participated extensively in data analysis and interpretation, edited significant portions of original manuscript and contributed significant intellectual content during manuscript revision.

12. Merk DR, Chin JT, Dake BA, Maegdefessel L, Miller MO, Kimura N, Tsao PS, Iosef C, Berry GJ, Mohr FW, Spin JM, **Alvira CM***, Robbins RC, and Fischbein MP. "miR-29b participates in early aneurysm development in Marfan syndrome." *Circ Res 2012;* Jan 20;110(2)312-24. PMID 22116819. *Designed all experiments related to NFκB signaling, supervised the technical execution of experiments, participated extensively in data analysis and interpretation, and contributed significant intellectual content during manuscript revision.

13. Iosef C, Alastalo TP, Iosef C, Hou Y, Chen C, Ahn Y, Chen C, Lyu SC, Adams ES, Cornfield DN, and **Alvira CM**. "Inhibiting nuclear factor kappa-B (NFκB) in the developing lung disrupts angiogenesis and alveolarization." *Am J Physiol Lung Cell Mol Physiol* 2012 May 15;302(10):L1023-36 PMID: 22367785.
Faculty of 1000 Recommended*

14. **Alvira CM**, Umesh A, Iosef C, Hou Y, Nowak J, Lyu SC, and Cornfield DN. "Voltage-dependent anion channel-2 interaction with NOS enhances pulmonary artery endothelial cell NO production." *Am J Respir Cell Mol Biol* 2012 Nov;47(5):669-78 PMID: 22842492

PEER REVIEWED PUBLICATIONS (CONT.)

15. Kim YM, Barnes EA, **Alvira CM***, Ying L, Reddy S, Cornfield DN. Hypoxia-inducible factor-1alpha in pulmonary artery smooth muscle cells lowers vascular tone by decreasing myosin light chain phosphorylation. *Circ Res* 2013 Apr 26;112(9):1230-1233. PMID: 23513056.
* Designed and supervised the creation of the knock out mice containing the smooth muscle cell specific deletion of HIF-1α, supervised the technical execution of experiments, participated extensively in data analysis and interpretation, and contributed significant intellectual content during manuscript revision. ****Faculty of 1000 Recommended****

16. Hilgendorff A, Reiss I, Ehrhardt H, Eickelberg O, **Alvira CM.** "Chronic lung disease in the preterm infant: Lessons learned from animal models." *Am J Respir Cell Mol Biol* 2014 Feb;50(2):233-45. PMID 24024524

17. Ramsi M, **Alvira C**, Purohit P, Cornfield D. "Haemophagocytic lymphohistiocytosis associated with coccidiomycosis." *BMJ Case Rep.* 2014 Aug 19;2014. PMID 25139924

18. Emrich FC, Okamura H, Dalal AR, Merk DM, Raaz U, Hennings JK, Chin JT, Miller MO, Blankenberg FG, Connolly AJ, Rabinovitch R, **Alvira CM***, Mohr FW, Robbins RC, and Fischbein MP. "Enhanced caspase activity contributes to ECM remodeling and early aneurysm development in a murine model of Marfan disease. "*Arterioscler Thromb Vasc Biol.* 2015 Jan;35(1):146-54 *Participated in the design of experiments, data analysis and interpretation, and contributed significant intellectual content during original draft or manuscript and the subsequent revision.

19. Kim FY, Barnes EA, Ying L, Chen C, Lee L, **Alvira CM***, and Cornfield DN. "Pulmonary artery smooth muscle cell endothelin-1 expression modulates the pulmonary vascular response to chronic hypoxia". *Am J Physiol Lung Cell Mol Physiol* 2015 Feb 15;308(4):L368-77. PMID: 25399435. *Participated in the design of in vitro experiments assessing proliferation and apoptosis, supervised the technical execution of experiments, data analysis and interpretation, drafted portions of original manuscript and contributed significant intellectual content during manuscript revision.

20. Hou Y, Liu M, Husted C, Chen C, Thiagarajan K, Rao SP, and **Alvira CM.** "Activation of the Nuclear factor Kappa-B Pathway During Postnatal Lung Inflammation Preserves Alveolarization by Suppressing Macrophage Inflammatory Protein-2." *Am J Physiol Lung Cell Mol Physiol.* 2015 Sep 15;309(6):L593-604. Epub 2015 Jul 10. PMID: 26163511

21. Ying L, Becard M, Lyell D, Han X, Shortliffe L, Iosef-Husted C, Cornfield DN* and **Alvira CM***. "The Transient Receptor Potential Vanilloid-4 Channel Modulates Uterine Tone During Pregnancy." *Sci Transl Med.* 2015 Dec 23;7(319):319ra204. PMID: 26702092
***Co-senior authors**

22. Vattulainen-Collanus S, Akinrinade O, Li M, Koskenvuo M, Li CG, de Jesus Perez V, Yuan K, Sawada H, Koskenvuo JW, **Alvira C***, Rabinovitch M, and Alastalo TP. "Loss of PPARg deficiency in endothelial cells leads to impaired angiogenesis. *J of Cell Sci* 2016 Feb 15;129(4):693-705. PMID: 26743080 *Designed and analyzed in vitro experiments using primary murine endothelial cells, and contributed significant intellectual content during manuscript revision.

23. Ehrhardt H, Pritzke T, Oak P, Kossert M, Biebach L, Förster K, Koschlig M, **Alvira CM***, and Hilgendorff A. "Absence of TNF-α Results in Imbalanced Inflammatory Response in the Newborn Lung Undergoing Ventilation." *Am J Physiol Lung Cell Mol Physiol.* 2016 May 15;310(10):L909-18 PMID: 27016588 *Designed and analyzed experiments to detect NFκB activation in lung tissue, and contributed significant intellectual content during manuscript revision.

INVITED PEER REVIEWED PUBLICATIONS

1. **Alvira CM.** "Nuclear factor-kappa-B signaling in lung development and disease: one pathway, numerous functions." *Birth Defects Res A Clin Mol Teratol* 2014 Mar;100(3):202-16. PMID: 24639404

2. **Baker CD and Alvira CM.** "Disrupted lung development and bronchopulmonary dysplasia: opportunities for lung repair and regeneration." *Curr Opin Pediatr.* 2014 Jun;26(3):306-14. PMID: 24739494

3. **Alvira CM.** "Aberrant Pulmonary Vascular Growth and Remodeling in Bronchopulmonary Dysplasia. *Accepted for publication in Front Med.*

PEER REVIEWED PUBLICATIONS: SUBMITTED

1. Okamura H, Emrich F, Dalal AR, Arakawa M, Penov K, Koyano T, Pedroza A, Chiu P, Trojan J, Connolly AJ, Rabinovitch M, **Alvira CM**, and Fischbein MP. "Long-term miR-29b Suppression Reduces Aneurysm Formation in a Marfan Mouse Model." Manuscript submitted to *J Thorac Cardiovasc Surg.*

PEER REVIEWED PUBLICATIONS: IN PREPARATION

1. Liu M, Husted C, Ying L, Cornfield DN, and **Alvira CM**. "The NF-kappa-B activating kinases, IKK-alpha and IKK-beta activate distinct panels of target genes that promote pulmonary endothelial cell migration." In preparation for submission to *Arterioscler Thromb Vasc Biol.*

2. Liu M, Rao S, Iosef C, Umbach G, Dewi R, Heilshorn SC, and **Alvira CM.** "Developmental expression of transforming growth factor beta induced protein during late lung development promotes pulmonary endothelial migration." In preparation for submission to *J Clin Invest*

INVITED PRESENTATIONS

1. Harvey J. Cohen, MD, PhD, Endowed Lecture in Pediatrics
   "The 'New' Bronchopulmonary Dysplasia: How Pulmonary Vascular Growth Directs Alveolar Development"
   Stanford University, Palo Alto, CA, November 30, 2012

2. Bay Area Lung Development, Physiology, and Cancer Symposium
   "Novel Pathways Mediating Angiogenesis in the Developing Lung"
   Stanford University, Palo Alto, CA, September 22, 2012

3. Scientific Symposium: Neonatal Lung Development and Adult Lung Homeostasis: Common Molecular Mechanisms in Lung Disease
   The 'Good Side' of NFκB: Novel Angiogenic and Anti-inflammatory Functions that Promote Lung Development and Repair.
   Experimental Biology, Boston, MA, April 1, 2015

4. ChildX Symposium: The top voices in child and maternal health. Special Presentation.
   "The Search for Novel Therapies that Promote Lung Development and Regeneration."
   Stanford University, Palo Alto, CA, April 2nd, 2015

5. Translational Cardiovascular Biology Conference-Special Seminar
   "The Search for Novel Therapies that Promote Lung Development and Regeneration."
   University of Colorado, Aurora, CO, July 21st, 2015

INVITED PRESENTATIONS (CONT.)

6. Center for Pulmonary & Vascular Biology-Research Conference
"*The 'Good Side' of NFκB: Novel Angiogenic and Anti-inflammatory Functions that Promote Lung Development and Repair.*
University of Texas-Southwestern, Visiting Professorship, Dallas, TX, December 1st, 2015

7. Department of Pediatrics-Grand Rounds
"Lessons learned from the 'New' Bronchopulmonary Dysplasia: Opportunities for Lung Regrowth and Regeneration"
University of Texas-Southwestern, Visiting Professorship, Dallas, TX, December 2nd, 2015

8. Scientific Symposium: Highlighting elements of aberrant alveolar development
"*The 'Good Side' of NFκB: Novel Angiogenic and Anti-inflammatory Functions that Promote Lung Development and Repair.*"
The Seventh Scientific Symposium of the University of Giessen and Marburg Lung Center School, Castle Waldeck, Hessen, Germany, December 7-8th, 2015

9. Stanford Pulmonary and Critical Care Medicine Grand Rounds
"*The 'Good Side' of NFκB: Anti-inflammatory and Angiogenic Functions in the Immature Lung.*"
Stanford University-Department of Medicine, Palo Alto, CA, March 18th, 2016

NATIONAL ABSTRACT PRESENTATIONS

1. **Alvira CM**, Yang GB, Abate A, Dennery PA. "*Maturational Differences in NFκB Activation in Response to Systemic Lipopolysaccharide.*" **Oral Presentation**, Western Society of Pediatric Research, Carmel, CA, January 2004.

2. **Alvira CM**, Yang GB, Abate A, Rabinovitch M, Dennery PA "*Maturational Differences in NFκB Activity Confer Differential Protection Against Lipopolysaccharide-Induced Acute Lung Injury.*" **Platform Presentation**, Pediatric Academic Society Meeting, San Francisco, CA, May 2004.

3. **Alvira CM**, Abate A, Yang GB, Dennery PA, Rabinovitch M. *"Inhibition of NFκB Increases Lipopolysaccharide-Induced Inflammation in Neonatal Mice."* **Platform Presentation**, Pediatric Academic Society Meeting, Washington DC, May 2005.

4. Spiekerkoetter EF, **Alvira CM**, Bruneau A, Blackman M, Virgin IV HW, Ambartsumian N, Rabinovitch M. *"A Herpes Virus Infection (γMHV-68) Induces Heightened Elastase Activity and Elastin Peptides, Promoting Pulmonary Vascular Disease (PVD) in Mts1 Mice."* **Poster Discussion Session**, ATS International Conference in San Francisco, California, May 2007.

5. **Alvira CM**, Wang L, Duong TT, Yeung RS, Rabinovitch M. *"TGF-β Mediated Regulation of Tropoelastin Gene Expression Impacts Disease Severity in a Murine Model of Kawasaki Disease."* **Platform Presentation**, Pediatric Academic Society Meeting, Toronto Canada, May 2007.

6. **Alvira CM,** Wang L, Duong TT, Li D, Yeung RS, Rabinovitch M. *"Disease Severity in a Murine Model of Kawasaki Disease is Determined By Dysregulation of Elastin Fiber Assembly."* **Oral Presentation**, American Heart Association Scientific Sessions, Orlando, FL, November 2007.

7. **Alvira CM**, Guignabert C, Wang L, Duong TT, Yeung RS, Rabinovitch M. *"TGF-β Antagonism Increases Vascular Disruption in a Murine Model of Kawasaki Disease."* **Platform Presentation**, Pediatric Academic Society Meeting, Honolulu, HI, May 2008.

NATIONAL PRESENTATIONS AND ABSTRACTS (CONT.)

8. Guignabert C, **Alvira CM**, Alastalo TP, Sawada H, de Jesus Perez VA, Hansmann G, Zhao M, Rabinovitch M. "*Tie2-Mediated Loss of Peroxisome Proliferator-Activated Receptor-g in Transgenic Mice Increases Platelet Derived Growth Factor-Receptor β and Pulmonary Arterial Muscularization.*" **Oral Presentation**, American Heart Association Scientific Sessions, New Orleans, LA, November 2008.

9. **Alvira CM,** Kim YM, Guignabert C, Wang L, Rabinovitch M. *"Transforming Growth Factor Beta Inhibition Increases Matrix Metalloproteinase-9 Activity and Enhances Elastin Degradation in a Murine Model of Kawasaki Disease."* **Oral Presentation**, American Heart Association Scientific Sessions, New Orleans, LA, November 2008.

10. **Alvira CM,** Lyu SC, Kim F, Cornfield DN, *"Nuclear Factor-κB Promotes Postnatal Alveologenesis and Prevents Lipopolysaccharide-Induced Alveolar Disruption."* **Poster Discussion,** American Thoracic Society, San Diego, CA, May 2009.

11. **Alvira CM,** Alastalo TP, Chen C, Lyu SC, Ahn YT, Cornfield DN. **"***Nuclear Factor Kappa B Mediates Postnatal Alveolarization by Promoting Pulmonary Angiogenesis via Vascular Endothelial Growth Factor Receptor-2 Regulation."* **Oral Presentation**, American Heart Association Scientific Sessions, Orland, FL, November 2009.

12. **Alvira CM**, Chen C, Lyu SC, Adams ES, and Cornfield DN. *"Nuclear Factor Kappa B Activation in the Neonatal Lung Protects Against Lipopolysaccharide Induced Alveolar Disruption."* **Platform Presentation**, Pediatric Academic Society Annual Meeting, Vancouver, May 2010

13. **Alvira CM**, Alastalo TP, Chen C, Lyu SC, and Cornfield DN. *"Nuclear Factor Kappa B is an Essential Regulator of Postnatal Alveolarization by Promoting Angiogenesis."* **Poster Discussion**, American Thoracic Society International Conference, New Orleans, May 2010.

14. **Alvira CM,** Alastalo TP, Iosef C, Hou Y, Chen C, Adams, ES, Lyu SC, and Cornfield DN. *"Constitutive Nuclear Factor Kappa-B Activity is Essential for Neonatal Pulmonary Endothelial Proliferation, Survival, and Angiogenesis."* **Platform Presentation**, Pediatric Academic Society Annual Meeting, Denver, April 2011

15. **Alvira CM,** Iosef C, Chen C, Hou Y, and Cornfield DN. *"Constitutive Activity of Nuclear Factor Kappa-B is Unique to the Pulmonary Endothelium and Promotes Alveolarization."* **Platform Presentation**, Pediatric Academic Society Annual Meeting, Boston, April 2012

16. Hou Y, Iosef C, Chen C, and **Alvira CM.** *"Nuclear Factor Kappa-B Activation in the Neonatal Lung Protects Against Lipopolysaccharide Induced Alveolar Disruption by Repressing Macrophage Inflammatory Protein-2 Expression."* **Poster Discussion**, American Thoracic Society International Conference, San Francisco, May 2012.

17. Husted C, Hou Y, Chen C, and **Alvira CM.** *"Temporal Specific Secretion of Angiogenic Factors from the Neonatal Lung Promotes Activation of Nuclear Factor Kappa B in the Pulmonary Endothelium."* **Platform Presentation.** Pediatric Academic Society Annual Meeting, Washington D. C. May 2013

18. Barnes EA, Ying L, Chen C, **Alvira CM**, and Cornfield DN. *"Loss of Smooth Muscle Cell HIF-1α Expression Compromises Angiogenesis and Impairs Lung Alveolarization."* **Platform Presentation.** Pediatric Academic Society Annual Meeting, Vancouver, May 2014

NATIONAL PRESENTATIONS AND ABSTRACTS (CONT.)

19. Kim FY, Barnes EA, **Alvira CM**, Lee L, and Cornfield DN. *"In Pulmonary Artery Smooth Muscle Cells, Intracellular Endothelin-1 Modulates the Proliferative Response to Chronic Hypoxia."* **Platform Presentation.** Pediatric Academic Society Annual Meeting, Vancouver, May 2014

20. Foley E, Husted C, and **Alvira CM.** *"A Novel Role for Alpha-Fetoprotein in Promoting Pulmonary Endothelial Proliferation and Migration in the Early Alveolar Lung."* **Platform Presentation.** Pediatric Academic Society Annual Meeting, Vancouver May 2014

21. Husted C, Liu M, Foley E, and **Alvira CM.** *"A Novel Developmental Role for Alpha-Fetoprotein in Promoting Late Lung Development."* **Poster Presentation.** Pediatric Academic Society Annual Meeting, San Diego, April 2015

22. Ying L, Barnes EA, **Alvira CM**, and Cornfield DN. *"Modulating Uterine Transient Receptor Vanilloid 4 Channel Activity Can Prevent Preterm Labor."* **Platform Presentation.** Pediatric Academic Society Annual Meeting, San Diego, April 2015

23. Barnes EA, Ying L, Chen C, **Alvira CM**, and Cornfield DN. *"Smooth Muscle Cell HIF-1a Expression Modulates Lung Alveolarization."* **Platform Presentation.** Pediatric Academic Society Annual Meeting, San Diego, April 2015

24. Oak P, Koschlig M, Windhorst A, Jain N, Reicherzer T, Erhardt H, Frankenberger M, **Alvira CM**, Eickelberg O, and Hilgendorff A. *"Monocyte-Centered Inflammatory Response Characterizing Early Stages of BPD Development in the Preterm Infant".* **Poster Discussion Session.** American Thoracic Society International Conference, San Francisco, May 2016.

25. Liu M, Rao, SP. Husted C, Umbach G, Dewi R, Heilshorn SC, and **Alvira CM**. *"A Novel Role for Transforming Growth Factor Beta-Induced Protein in Promoting Pulmonary Endothelial Migration in the Alveolar Lung".* **Poster Discussion Session.** American Thoracic Society International Conference, San Francisco, May 2016.
Winner: Neonatal and Developing Lung Abstract Award

26. Rao, SP, Liu M, and **Alvira CM**. *"Pulmonary Endothelial Angiogenic Function is Impaired in Mice Containing an Inducible, Endothelial-Specific Deletion of IKKβ."* **Platform Presentation**. Pediatric Academic Society Annual Meeting, Baltimore, May 2016

LOCAL PRESENTATIONS: STANFORD UNIVERSITY

1. Pediatric Critical Care Medicine Fellowship Lecture Series
"Board Review: Oxygen Delivery and Consumption", February, 2007

2. Center for Excellence in Pulmonary Biology Lecture Series
"Basic Respiratory Physiology", August, 2007

3. Pediatric Critical Care Medicine Fellowship Lecture Series
"Ventilator-Induced Lung Injury", November, 2007

4. Pediatric Intensive Care Unit RN Orientation
"Sepsis: Pathophysiology and Management", November, 2007

5. Center for Excellence in Pulmonary Biology Lecture Series
"Lung Development" March, 2008

LOCAL PRESENTATIONS: STANFORD UNIVERSITY

6. Cardiopulmonary Research in Progress Seminar
   "Disease Severity in a Murine Model of Kawasaki Disease is Determined by Dysregulation of Elastin Fiber Assembly", April, 2008

7. Pediatric Intensive Care Unit RN Orientation
   "Sepsis: Pathophysiology and Management", June, 2008

8. Center for Excellence in Pulmonary Biology Lecture Series
   "Ventilator-Induced Lung Injury", August, 2008

9. Cardiopulmonary Research in Progress Seminar
   "The Role of NF kappa-B Signaling in Postnatal Lung Development", March, 2010

10. Stanford University School of Medicine: MED223
    CVP Scholarly Concentration
    "The Acute Respiratory Distress Syndrome", May, 2011

11. Research Conference, Pulmonary Biology Fellow Lecture Series
    "*The Role of Nuclear Factor Kappa-B in Lung Development"*, September, 2011

12. Pediatric Resident Noon Conference
    "Multiple Organ Dysfunction Syndrome", September, 2011

13. Center for Excellence in Pulmonary Biology Fellow Lecture Series
    "Ventilator-Induced Lung Injury", November, 2011

14. Research Presentation, Pediatric Critical Care Fellowship Lecture Series
    "Novel Mediators of Angiogenesis in the Developing Lung", October, 2012

15. Pediatric Resident Noon Conference
    "Shock", January, 2013

16. Pediatric Critical Care Fellowship Lecture Series
    "Ventilator-Induced Lung Injury", August, 2013

17. Stanford University School of Medicine: MED223
    CVP Scholarly Concentration
    "Bronchopulmonary Dysplasia", January, 2014

18. Frontiers in Pulmonary Biology Research Seminar Series
    "Novel Angiogenic Mediators in the Early Alveolar Lung", January, 2014

19. Pediatric Resident Noon Conference
    "Acute Respiratory Distress Syndrome", February 2014

20. Pediatric Critical Care Fellowship Lecture Series
    "Ventilator-Induced Lung Injury", September, 2014

21. Pediatric Resident Noon Conference
    "Acute Respiratory Distress Syndrome", February 2015

22. Pediatric Mentoring Program Workshop Speaker
    "Negotiating Time, Space and Money with your Division Chief", May 2015

SCHOLARSHIP OVERSIGHT COMMITTEES (**Present**)

2016-present	Anica Bulic, Clinical Fellow in Pediatric Cardiology
2016-present	Kelly Cox, Clinical Fellow in Pediatric Cardiology
2016-present	Will Goodyer, Clinical Fellow in Pediatric Cardiology
2016-present	Andy Koth, Clinical Fellow in Pediatric Cardiology
2016-present	Lindsey Troy, Clinical Fellow in Pediatric Critical Care Medicine
2015-present	Daniel Tawfik, Clinical Fellow in Pediatric Critical Care Medicine
2015-present	Saidie Rodriguez, Clinical Fellow in Pediatric Critical Care Medicine
2015-present	Katie Kruse, Clinical Fellow in Pediatric Critical Care Medicine
2013-present	Bronwyn Harris, Clinical Fellow in Pediatric Cardiology

SCHOLARSHIP OVERSIGHT COMMITTEES (**Past**)

2013-2015	Sidharth Mahapatra, Clinical Fellow in Pediatric Critical Care Medicine
2013-2015	Sharon Chen, Clinical Fellow in Pediatric Cardiology
2012-2015	Holly Bauser-Heaton, Clinical Fellow in Pediatric Cardiology
2011-2015	James Priest, Clinical Fellow in Pediatric Cardiology
2012-2014	Loren Sachs, Clinical Fellow in Pediatric Critical Care Medicine
2012-2013	David Peng, Clinical Fellow in Pediatric Cardiology
2011-2013	Rachel Hopper, Clinical Fellow in Pediatric Cardiology
2011-2013	Francis Kim, Clinical Fellow in Pediatric Critical Care Medicine
2011-2013	Dan Shaked, Clinical Fellow in Pediatric Critical Care Medicine
2010-2012	Heather Sun, Clinical Fellow in Pediatric Cardiology
2010-2012	Joseph May, Clinical Fellow in Pediatric Cardiology
2010-2012	Preston Lavinghousez, Clinical Fellow in Pediatric Critical Care Medicine
2008-2011	Seth Hollander, Clinical Fellow in Pediatric Cardiology
2008-2011	David Colvin, Clinical Fellow in Pediatric Critical Care Medicine
2008-2010	Natalie Pageler, Clinical Fellow in Pediatric Critical Care Medicine
2007-2009	David Axelrod, Clinical Fellow in Pediatric Cardiology
2007-2008	Douglas Balster, Clinical Fellow in Pediatric Cardiology
2006-2008	Michael J. Cisco, Clinical Fellow in Pediatric Critical Care Medicine
2005-2007	Alan Schroeder, Clinical Fellow in Pediatric Critical Care Medicine