

Stanford



Terry Robinson

Associate Professor of Pediatrics (Pulmonary) at the Lucile Salter Packard Children's Hospital, Emeritus

Pediatrics - Pulmonary Medicine

 NIH Biosketch available Online

CONTACT INFORMATION

• Alternate Contact

Lara Vastano - Administrative Associate

Email lvastano@stanford.edu

Tel 650-725-8188

Bio

BIO

My research interests focus on the long term effects of chronic lung disease on respiratory structure and resultant lung function. Lab research involves measuring structural function with serial CT imaging at similar lung volumes and expiratory CT scans to optimize evaluation of regional small airway disease. The advantage of understanding the molecular and physiologic events of lung disease provides the opportunity for preemptive medical intervention before symptoms appear.

ACADEMIC APPOINTMENTS

- Emeritus Faculty-Med Ctr Line, Pediatrics - Pulmonary Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Packard Children's Hospital Resident Education Committee, LPCH, (2001-2002)
- Medical Specialties Peer Review Committee, LPCH, (2005-2007)

HONORS AND AWARDS

- Honorary Invited Speaker Annual Scientific Meeting, Sydney, Australia, Auckland, New Zealand,, The Thoracic Society of Australia & New Zealand and ANZSRS (March 2007)
- Honorary Invited Participant, Leuven, Belgium, European Respiratory Society (February 2007)
- Provider of the Year, Cystic Fibrosis Foundation, Northern California Chapter (October 2006)

PATENTS

- Michael D. Black, Purna Prasad, Terry E. Robinson. "United States Patent 6,869,397 Non-tethered macro to micro endoscope", The Board of Trustees of the Leland Stanford Junior University, Mar 22, 2005
- Terry Robinson, Wallace White, Nicholas Kalayjian. "United States Patent 6,631,716 Dynamic Respiratory Control", The Board of Trustees of the Leland Stanford Junior University, Oct 14, 2003

LINKS

- Terry Robinson Lab: <http://med.stanford.edu/terryrobinsonlab/>
- Center of Excellence for Pediatric Cystic Fibrosis and Pulmonary Diseases: <http://www.lpch.org/clinicalSpecialtiesServices/COE/PulmonaryCareCF/overview.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interests focus on detection of early and progressive Cystic fibrosis (CF) structural lung disease by utilizing chest CT imaging and CT post-processing methodology. Current research efforts involve utilization of low dose infant & children CT imaging protocols and quantitative airway and air trapping algorithms to evaluate early and progressive CF disease. Additional areas of research in our laboratory include defining more direct pulmonary outcome measures to evaluate treatment effects in chronic diseases such as cystic fibrosis and pulmonary alveolar proteinosis.

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Pediatric Pulmonology (Fellowship Program)
- Pediatric Radiology (Fellowship Program)

Publications

PUBLICATIONS

- **Influence of radiation dose and reconstruction algorithm in MDCT assessment of airway wall thickness: A phantom study** *MEDICAL PHYSICS*
Gomez-Cardona, D., Nagle, S. K., Li, K., Robinson, T. E., Chen, G.
2015; 42 (10): 5919-5927
- **Chest CT in Children: Anesthesia and Atelectasis** *Pediatric Radiology*
Newman, B., Krane, E. J., Holmes, T. R., Robinson, T. E.
2014; 44 (2): 164-72
- **Improved air trapping evaluation in chest computed tomography in children with CF using real-time spirometric monitoring and biofeedback** *Journal of Cystic Fibrosis*
Kongstad, T., Buchvald, F. F., Green, K., Lindblad, A., Robinson, T. E., Nielsen, K. G.
2013; 12 (6): 559-66
- **Comparison of Different Methods of Calculating CT Radiation Effective Dose in Children** *Annual Meeting of the Society-for-Pediatric-Radiology*
Newman, B., Ganguly, A., Kim, J., Robinson, T.
AMER ROENTGEN RAY SOC.2012: W232-W239
- **Development and Validation of Automated 2D-3D Bronchial Airway Matching to Track Changes in Regional Bronchial Morphology Using Serial Low-Dose Chest CT Scans in Children with Chronic Lung Disease** *JOURNAL OF DIGITAL IMAGING*
Raman, P., Raman, R., Newman, B., Venkatraman, R., Raman, B., Robinson, T. E.
2010; 23 (6): 744-754
- **Cystic Fibrosis HRCT Scores Correlate Strongly With Pseudomonas Infection** *PEDIATRIC PULMONOLOGY*
Robinson, T. E., Leung, A. N., Chen, X., Moss, R. B., Emond, M. J.
2009; 44 (11): 1107-1117
- **An Airway Phantom to Standardize CT Acquisition in Multicenter Clinical Trials** *ACADEMIC RADIOLOGY*
Robinson, T. E., Long, F. R., Raman, P., Saha, P., Emond, M. J., Reinhardt, J. M., Raman, R., Brody, A. S.
2009; 16 (9): 1134-1141
- **Sampling density for the quantitative evaluation of air trapping** *PEDIATRIC RADIOLOGY*
Goris, M. L., Robinson, T. E.
2009; 39 (3): 221-225
- **Quantitative Analysis of Longitudinal Response to Aerosolized Granulocyte-Macrophage Colony-Stimulating Factor in Two Adolescents With Autoimmune Pulmonary Alveolar Proteinosis** *CHEST*
Robinson, T. E., Trapnell, B. C., Goris, M. L., Quittell, L. M., Cornfield, D. N.

- 2009; 135 (3): 842-848
- **Successful pregnancy and cesarean delivery via noninvasive ventilation in mitochondrial myopathy** *JOURNAL OF PERINATOLOGY*
Yuan, N., El-Sayed, Y. Y., Ruoss, S. J., Riley, E., Enns, G. M., Robinson, T. E.
2009; 29 (2): 166-167
 - **A critical discussion of computer analysis in medical imaging.** *Proceedings of the American Thoracic Society*
Goris, M. L., Zhu, H. J., Robinson, T. E.
2007; 4 (4): 347-349
 - **Computed tomography scanning techniques for the evaluation of cystic fibrosis lung disease.** *Proceedings of the American Thoracic Society*
Robinson, T. E.
2007; 4 (4): 310-315
 - **Imaging of the chest in cystic fibrosis** *CLINICS IN CHEST MEDICINE*
Robinson, T. E.
2007; 28 (2): 405-?
 - **Fully automated system for three-dimensional bronchial morphology analysis using volumetric multidetector computed tomography of the chest** *JOURNAL OF DIGITAL IMAGING*
Venkatraman, R., Raman, R., Raman, B., Moss, R. B., Rubin, G. D., Mathers, L. H., Robinson, T. E.
2006; 19 (2): 132-139
 - **Computed tomography in the evaluation of cystic fibrosis lung disease** *AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE*
Brody, A. S., Tiddens, H. A., Castile, R. G., Coxson, H. O., de Jong, P. A., Goldin, J., Huda, W., Long, F. R., McNitt-Gray, M., Rock, M., Robinson, T. E., Sagel, S. D.
2005; 172 (10): 1246-1252
 - **Dornase alfa reduces air trapping in children with mild cystic fibrosis lung disease - A quantitative analysis** *CHEST*
Robinson, T. E., Goris, M. L., Zhu, H. J., Chen, X. R., Bhise, F., Sheikh, F., Moss, R. B.
2005; 128 (4): 2327-2335
 - **Quantitative air-trapping analysis in children with mild cystic fibrosis lung disease** *PEDIATRIC PULMONOLOGY*
Bonnell, A. S., Song, S. M., Kesavaraju, K., Newaskar, M., Paxton, C. J., Bloch, D. A., Moss, R. B., Robinson, T. E.
2004; 38 (5): 396-405
 - **High-resolution CT scanning: potential outcome measure** *CURRENT OPINION IN PULMONARY MEDICINE*
Robinson, T. E.
2004; 10 (6): 537-541
 - **Composite spirometric-computed tomography outcome measure in early cystic fibrosis lung disease** *AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE*
Robinson, T. E., Leung, A. N., Northway, W. H., Blankenberg, F. G., Chan, F. P., Bloch, D. A., Holmes, T. H., Moss, R. B.
2003; 168 (5): 588-593
 - **Pulmonary glial heterotopia in a monoamniotic twin** *PEDIATRIC PULMONOLOGY*
Morgan, T., Anderson, J., Jorden, M., Keller, K., Robinson, T., Hintz, S.
2003; 36 (2): 162-166
 - **An automated approach to quantitative air trapping measurements in mild cystic fibrosis** *CHEST*
Goris, M. L., Zhu, H. Y., Blankenberg, F., Chan, F., Robinson, T. E.
2003; 123 (5): 1655-1663
 - **Acute stress disorder following ventilation** *PSYCHOSOMATICS*
Shaw, R. J., Robinson, T. E., Steiner, H.
2002; 43 (1): 74-76
 - **Spirometer-triggered high-resolution computed tomography and pulmonary function measurements during an acute exacerbation in patients with cystic fibrosis** *JOURNAL OF PEDIATRICS*
Robinson, T. E., Leung, A. N., Northway, W. H., Blankenberg, F. G., Bloch, D. A., Oehlert, J. W., Al-Dabbagh, H., Hubli, S., Moss, R. B.
2001; 138 (4): 553-559

- **Standardized high-resolution CT of the lung using a spirometer-triggered electron beam CT scanner** *AMERICAN JOURNAL OF ROENTGENOLOGY*
Robinson, T. E., Leung, A. N., Moss, R. B., Blankenberg, F. G., Al-Dabbagh, H., Northway, W. H.
1999; 172 (6): 1636-1638
- **Inspiratory flow rate and dynamic lung function in cystic fibrosis and chronic obstructive lung diseases** *CHEST*
Sarinas, P. S., Robinson, T. E., Clark, A. R., Canfield, J., Chitkara, R. K., Fick, R. B.
1998; 114 (4): 988-992