

CURRICULUM VITAE
STEVEN M. ROWE
University of Alabama at Birmingham
School of Medicine

Date: September 17, 2013

PERSONAL INFORMATION

Name: Steven M. Rowe, MD MSPH
Citizenship: US

RANK/TITLE: Associate Professor

Primary Appointment:

Department: Pulmonary, Allergy, and Critical Care Medicine

Business Address: MCLM 768, 1918 University Blvd., Birmingham, AL 35294-0005

Phone: 205-934-9640

Alternate Appointment:

Department: Pediatric Pulmonology

Business Address: ACC 620, 1600 7th Ave S, Birmingham, AL 35294-0011

Phone: 205-939-5960

Alternate Appointment:

Department: Department of Cell, Developmental and Integrative Biology (CDIB)

Business Address: THT 927, 1900 University Blvd, Birmingham, AL 35294-0006

Phone: 205-934-6590

HOSPITAL AND OTHER (NON-ACADEMIC) APPOINTMENTS:
PROFESSIONAL CONSULTANTSHIPS:

EDUCATION:

Institution	Degree	Date
University of Virginia	BA (Interdisciplinary)	5/1994
Vanderbilt University	MD	5/1998
University of Alabama at Birmingham	MSPH (Biostatistics)	5/2005

LICENSURE:

USMLE 1998

Alabama 1998-Current

BOARD CERTIFICATION:

Internal Medicine	2002
Pediatrics	2002
Pulmonary Medicine	2004
Critical Care Medicine	2005

POSTDOCTORAL TRAINING:

Year	Position	Institution
7/1998-6/99	Internship	UAB, Combined Internal Medicine and Pediatrics
7/1999-6/02	Residency	UAB, Combined Internal Medicine and Pediatrics

7/2001-6/02	Chief Resident	UAB, Combined Internal Medicine and Pediatrics
7/2002-6/05	Fellow	UAB, Combined Pulmonary and Critical Care Medicine and Pediatric Pulmonology

ACADEMIC APPOINTMENTS:

Year	Rank/Title	Institution
7/2005-12/05	Instructor	UAB Pulmonary, Allergy, and Critical Care Medicine; and Pediatric Pulmonology
1/2006-9/2011	Assistant Professor	UAB Pulmonary, Allergy, and Critical Care Medicine; Pediatric Pulmonology; and Physiology and Biophysics
10/2011-Current	Associate Professor	UAB Pulmonary, Allergy, and Critical Care Medicine; Pediatric Pulmonology; and Physiology and Biophysics
10/2011	Award of Tenure	University of Alabama at Birmingham
12/2011-Current	Faculty	Graduate Biomedical Sciences (Themes: Biochemistry and Structural Biology; Genetics and Genomic Sciences)
12/2012-Current	Endowed Scholar	Endowed Scholar in Pulmonary and Translational Science, University of Alabama at Birmingham

RESEARCH CENTER AFFILIATIONS:

7/2005 – Current	Cystic Fibrosis Research Center
5/2008 – Current	Center for Biophysical Sciences and Engineering
6/2009 – Current	UAB Center for Clinical and Translational Science
7/2011 – Current	UAB Lung Health Center
1/2013 – Current	Comprehensive Cardiovascular Center

ADMINISTRATIVE POSITIONS:

1/2006-7/1/2012	Director	CF Transition Clinic, UAB
4/2006-10/2008	Associate Director	CFF Therapeutics Development Network, Center for CFTR Detection
10/2008-Current	Director	CFF Therapeutics Development Network, Center for CFTR Detection
09/2009-Current	Special Consultant for	Translational Research, Cystic Fibrosis Foundation
1/1/2010-Current	Director	CFF Therapeutics Development Network Translational Research Center

AWARDS/HONORS:

1990	National Eagle Scout Award
1990-94	Dean's List, University of Virginia
1992-94	Howard Hughes Research Fellowship. Preceptor: W. Dean Harmon, Ph.D. Department of Chemistry, University of Virginia.
1991-94	Echols Scholar, Honors Program, University of Virginia
1994	Distinguished Service Key, Alpha Phi Omega Co-Ed Service Fraternity
1994	Phi Beta Kappa
1995	Associate Program Director, Camp Holiday Trails, Charlottesville, VA: led team of 24 counselors; planned, organized, and directed activities at summer camp for children with special health needs.
1995	Commendation, Teaching Assistant, Clinical Problem Solving Elective, VU

- 1996 Amos Christie/Hoffman Scholarship. Eight week clinical fellowship in Pediatrics at Vanderbilt University Children's Hospital.
- 1999 Resident Book Award, Housestaff award for best patient evaluations, UAB
- 1999 Nomination, Argus Award, Award for best teaching resident, Department of Medicine and Department of Pediatrics, UAB
- 2000 J. Claude Bennett, M.D. Award, Housestaff award for best patient evaluations
- 2002 Argus Award, Department of Pediatrics, Award for best teaching resident, UAB
- 2002 Ben Friedman Award, Department of Medicine, Award for best teaching resident
- 2004 Honorable Mention, J. Claude Bennett, M.D. Award for Excellence in Research by an Associate Fellow, Department of Medicine, UAB
- 2004 Best Case Presentation by an Affiliate Member (Sepsis), *American College of Chest Physicians Annual Meeting*, 2004, Seattle, WA
- 2005 Best Case Presentation by an Affiliate Member (Pleural Diseases), *American College of Chest Physicians Annual Meeting*, 2005, Montreal, Canada
- 2009 The Griffin Society, The Second Annual Arts in Medicine Lecture, UAB
- 2010,11 Research Excellence Award, Department of Medicine
- 2010,11 Education Excellence Award, Department of Medicine
- 2010-12 North American Cystic Fibrosis Foundation Conference Planning Committee
- 2012 Inducted to the *Southern Society of Clinical Investigation*
- 2012 Nominated to the *American Society of Clinical Investigation*
- 2012 CF Therapeutics Development Network Translational Working Group
- 2013 Department of Medicine Research Development Group

PATENTS

- Co-inventor on a patent submitted regarding the possible activity of chloride secretagogues for therapy of sinus disease (Provisional Patent Application Under 35 U.S.C. §111(b) and 37 C.F.R. § 1.53(c) in the United States Patent and Trademark Office).
- Inventor of a patent on the use of μ OCT towards the functional imaging of respiratory mucosa, including for the use of high-throughput screening, estimation of rheology, and functional anatomy (e.g. cilia beating, airway surface liquid depth, and mucociliary transport). Patent number pending.
- Co-inventor of a patent using structural-based mapping of the CFTR molecule to identify agents that modulate CFTR processing. Patent number pending.
- Inventor of a patent to provide supernormal mucociliary clearance to combat human disease. Patent number pending.

PROFESSIONAL SOCIETIES:

- 1998 American Medical Association
- 1998 American College of Physicians-American Society of Internal Medicine
- 1998 American Academy of Pediatrics
- 2003 American College of Chest Physicians
- 2004 American Thoracic Society
- 2012 Southern Society for Clinical Research
- 2013 Faculty of 1000 Prime (Pulmonary; Pharmacology)

MEMBERSHIPS:

COUNCILS AND COMMITTEES:

- 2000-02 Housestaff Council, Department of Pediatrics
- 2005-06 American Thoracic Society Corporate Relations Committee
- 2006- American Thoracic Society Members in Transition and Training Committee

- 2007- CF Therapeutics Development Network, National Resource Center Committee
- 2008-10 Research and Research Training Committee, Cystic Fibrosis Foundation
- 2009- North American CF Conference Planning Committee
- 2009- Fellow Research Education Committee, Division of Pulmonary Allergy and Critical Care Medicine, UAB
- 2010- Research Strategy Committee, Division of Pulmonary Allergy and Critical Care Medicine, UAB

UNIVERSITY ACTIVITIES:

- 1991-94 Alpha Phi Omega Co-Ed Service Fraternity: Service Vice-President, Pledgemaster, Rush-Chair, National Delegate.
- 1992-93 Madison House Program Director, Operating Room.
- 1993-94 Madison House Head Program Director, Medical Services: managed 18 student program directors coordinating over 1000 student volunteers per year.
- 1995 Teaching Assistant, Clinical Problem Solving Elective
- 1995 Immunology Student Tutoring Coordinator
- 1996-97 Student Instructor, Neurobiology
- 1996-97 Class Vice-President: coordinated service projects, revised honor code

OTHER PROFESSIONAL ACTIVITIES:

- 2006- Adhoc reviewer for *Pediatrics*
- 2006- Adhoc reviewer for *Chest Physician*
- 2006 North American Cystic Fibrosis Conference Abstract Selection, Committee on New Therapies
- 2006 Strategic Advisory Committee, PTC Therapeutics, Inc.
- 2007 Curcumin Data Review Committee, Cystic Fibrosis Foundation
- 2007 North American Cystic Fibrosis Conference Abstract Selection, Committee on Airway Physiology/Pathophysiology and Airway Defense
- 2007- Adhoc reviewer for *American Journal of Physiology – Lung*
- 2007- Nasal Potential Difference site initiation and review, Cystic Fibrosis Therapeutics Development Network
- 2007- Adhoc reviewer for Medical Research Scotland (Grant Review)
- 2007- Adhoc reviewer for Cystic Fibrosis Foundation (Grant Review)
- 2007- Fellow Mentorship Committee (Basic/Translational Science), Division of Pulmonary and Critical Care Medicine
- 2007 New Investigator's Workshop, National Institute of Diabetes and Digestive and Kidney Disease, NIH, Bethesda, MD
- 2007 Adhoc reviewer for *Mass Spectrometry*
- 2007 Grant reviewer for Children's Center for Research and Innovation, Alabama Children's Hospital Foundation
- 2007- Co-Chair, Mucociliary Clearance Research Consortium, Cystic Fibrosis Foundation
- 2008- Adhoc reviewer for *Biomaterials*
- 2008- Adhoc reviewer for *Respiratory Research*
- 2008- Adhoc reviewer for *American Journal of Respiratory and Critical Care Medicine*
- 2008- Grant Reviewer, Research and Research Training Committee, Cystic Fibrosis Foundation
- 2008- Adhoc reviewer for *Respiratory Medicine*
- 2009-10 Adhoc reviewer for *Human Mutation*
- 2009-13 Abstract judge, Department of Medicine Trainee Research Symposium
- 2009-13 Abstract judge, School of Medicine Trainee Research Symposium
- 2009- Adhoc reviewer for *Current Drug Targets*

2010- Adhoc reviewer for *Journal of Immunology*
2010 Panelist for National Institutes of Health Scientific Management Review Board, Translational Medicine and Therapeutics Working Group
2010 CF Education Day Webcast – “Research and the Future of CF Care”
2010 Ad hoc reviewer for *Molecular Medicine*
2011-13 Grant reviewer for Italian Cystic Fibrosis Research Foundation
2011 Adhoc reviewer for *Journal of Aerosol Medicine and Pulmonary Drug Delivery*
2011 Adhoc reviewer for *Chest*
2011 Adhoc reviewer for *American Journal of Respiratory Cell and Molecular Biology*
2011- Adhoc reviewer for *Science – Translational Medicine*
2011 Adhoc reviewer for *The New England Journal of Medicine*
2012 Adhoc reviewer for *The Medical Letter*
2012- Adhoc reviewer for *PLoS One*
2012 Adhoc reviewer for *The European Journal of Pharmacology*
2012 Adhoc reviewer for *Drugs of the Future*
2012 Grant reviewer for *The Netherlands Organization for Health Research and Development*
2012 Reviewer for NIH Special Study Section (P01)
2013 Reviewer for NIH/FDA Special Emphasis Panel (ZRG1 BDCN-A; P50)
2013 Reviewer for NIH Study Section (ZRG1 CVRS-G (04) M Respiratory Diseases)
2013 Adhoc reviewer for *Lancet – Respiratory Medicine*
2013 Adhoc reviewer for *Therapeutic advances in Respiratory Disease*
2013 Adhoc reviewer for *Thorax*
2013 Adhoc reviewer for *Journal of Clinical Investigation*
2013 Adhoc reviewer for *AJP-Lung*

ADVISORY BOARD ACTIVITY FOR PHARMACEUTICAL DEVELOPMENT:

Vertex Pharmaceuticals
PTC Therapeutics
Novartis Pharmaceuticals
Cystic Fibrosis Foundation Therapeutics
Inspire Pharmaceuticals
Kala Pharmaceuticals
Celtaxys, Inc.
Cystic Fibrosis Foundation Therapeutics Development Network
Bayer Healthcare

Note: Starting in 2010, all consulting activity has been voluntarily routed directly through the University of Alabama at Birmingham, and supports a UAB managed research account; Dr. Rowe defers all personal income from consulting activity.

MAJOR RESEARCH INTERESTS: Mechanistic features underlying the correction of mutant cystic fibrosis transmembrane conductance regulator (CFTR). The design and conduct of clinical trials testing new therapeutic agents intended to correct the ion transport defect in cystic fibrosis. The evaluation and development of biomarkers relevant to CF outcomes. The biologic relevance of CFTR in regulating mucus clearance, including the role of acquired CFTR dysfunction in COPD and other smoking related lung diseases, and pharmacologic approaches to address this pathway. New imaging technologies to examine basic aspects of mucociliary transport and applicability to drug characterization, screening, and *in vivo* imaging.

TEACHING EXPERIENCE:

- 1997 Preceptor, Interview of the Substance Abuse Patient, Physical Diagnosis
- 2004-09 Instructor, Acid-Base Physiology Curriculum, UAB School of Medicine
- 2006- Graduate Faculty, Department of Physiology and Biophysics
- 2006- Instructor, Hughes Med-Grad Fellowship Program, Integrated Biomedical Sciences Program
- 2008- Lecturer, "Bronchiectasis and Cystic Fibrosis", MSI Pulmonary Core Curriculum
- 2009- Lecturer, "A Case Study in Career Development – Correcting the Basic Defect: Protein Repair Strategies in Cystic Fibrosis", Medical Scientist Training Program"
- 2010- Lecturer, "Biostatistics for the Physician Scientist", Clinical Translational Science Program. Note: 4 hour lecture series.
- 2010- Lecture, Pediatric Combined Fellows Program: "Biostatistics" (Jan 2011)
- 2010- Lecture series organizer and director: "Biostatics for Physician Scientists." (Mar 2011) Pulmonary / Critical Care Medicine Fellowship Program. Note 5 hour lecture series.
- 2010 Expert advisor, Medical Resident Journal Club (Oct 2010)
- 2010- Lecturer – Graduate Biomedical Sciences, Howard Hughes Med. Grad Fellowship Program, Hughes Med-Grad Course HMG702 "Phenotyping Human Disease". (Nov 2010,11,12,13)
- 2010 Expert Lecturer, EPI 702 Doctoral Seminar
- 2010 Lecturer -- "Effect of VX-770 in Persons with Cystic Fibrosis and the G551D-CFTR Mutation", Genetic Counseling Journal Club (January 2011)
- 2011 Lecturer – "New insights from CFTR modulation in the clinic" Internal Medicine - Pediatrics Residency Program Noon Conference (May 2011)
- 2012 Lecturer - "Design of Clinical Trials." T35 Research Training Program, 2012.
- 2013 Lecturer - "Responsible Conduct of Human Research." T35 Research Training Program, 2012.
- 2013 Lecturer – "Biostatistics for the Translational Scientist." GBS 779 - Translational Cancer Research, 2013

CERTIFICATIONS:

- 1998 Advanced Cardiac Life Support
- 1998 Pediatric Advanced Life Support, Instructor
- 1998 Neonatal Advanced Life Support
- 1999 Advanced Trauma Life Support
- 2009 Good Clinical Practice Certification

MENTORING:

Kevin Byram Summer Undergraduate Honors Research Program, University of Alabama at Birmingham, 2005-2007. Research Mentor

Louise C. Pyle, B.A. Medical Student Training Program, University of Alabama at Birmingham, 2006-Present. Graduate Student Committee.

Curtis Jones Summer Scholars Program, Center for Outreach Development, 2006. Winner, Raymond F. Dacheux Promising Scientist Award.

Jennifer Fulton, M.D. Fellow, Pulmonary and Critical Care, University of Alabama at Birmingham, 2006-2009. Research Mentor. Honorable Mention, UAB Research Day 2008.

D. Brent McQuaid, M.D. Resident Physician, University of Alabama at Birmingham, 2006-2010. Research Mentor.

D. M. Solomon, M.D. Medical Resident, University of Alabama at Birmingham, 2007-2010. Research Mentor. [1 month research elective; TIME-R Award Recipient.]. Semi-Finalist, Thomas N. James Award for Excellence in Research by Resident Physician.

Stephen Johnson Medical Student, University of Alabama at Birmingham, 2008. NIH T35 Summer Research Program. Awarded Best Presentation at Medical Student Research Trainee Day.

Elina Levin, Medical Student, Research Clerkship, University of Alabama at Birmingham, 2009-2010, NIH T35 Summer Research Program.

Carla Frederick, M.D. Pulmonary Fellow, University of Alabama at Birmingham, 2009-2010, Recipient, First Year Clinical Fellowship Award, Cystic Fibrosis Foundation (Rowe, mentor)

Suresh Shastry, Ph. D. Postdoctoral Fellow, University of Alabama at Birmingham. 2009-Present.

Andrew Wilhelm, D.O. Pulmonary Fellow, University of Alabama at Birmingham, 2010-2011. Research Mentor. J. Claude Bennett Award for Excellence in Research by an Associate Fellow (2010) (Poster "Cystic fibrosis transmembrane conductance regulator function in chronic obstructive pulmonary disease").

Jody Hunt, M.D. Pulmonary Fellow, University of Alabama at Birmingham, 2010-12. Research Mentor.

Peter Sloane, Student Trainee, University of Alabama at Birmingham, 2009-2011. Samuel B. Barker Award for Excellence in Research by a Graduate Student (2010) (Poster "Pharmacologic rescue of acquired CFTR dysfunction in vitro"). Research Mentor and Supervisor. Accepted, UAB Medical School Class of 2018.

S. Vamsee Raju, Ph.D., Postdoctoral Fellow, University of Alabama at Birmingham, 2011-Present. Research Mentor. Awarded American Lung Association Training Grant, 2012-14. Finalist, Junior Investigator's award, NACFC 2012. 2nd Place, UAB Postdoctoral Fellow Research Day, 2013. Southern Society for Clinical Research Travel Award, 2013. European Respiratory Society Young Scientist Sponsorship, 2013.

Xiaojiao Xue, Graduate Student, Genetics and Genomics Science, University of Alabama at Birmingham, 2010-Present. Graduate Committee and Thesis Advisor.

Grace Houser, M.D. Pediatric Pulmonology Fellow. University of Alabama at Birmingham, 2011-Present. Research Mentor. Awarded Dixon Fellowship, Children's Hospital of Alabama.

Alex Smith. Medical Student Trainee, University of Alabama at Birmingham; NIH T35 Award Recipient, 2011.

Silpak Biswas, Ph.D. Postdoctoral Fellow, University of Alabama at Birmingham, 2011-12. Research Mentor.

Wesley Lewis, B.S. Graduate Student, Cell, Molecular and Developmental Biology. 2011-Present. Graduate Committee and Thesis Advisor.

James Lambert. Graduate School of Biomedical Sciences-Biochemistry. Research Mentor, Howard Hughes Integrated Biomedical Sciences Program. 2012-2013.

Susan Birket, Ph.D., Postdoctoral Fellow, University of Alabama at Birmingham, 2012-Present. Research Mentor, T32 Award. 3rd Place, UAB Postdoctoral Fellow Research Day, 2013. Finalist, Junior Investigator's award, NACFC 2013.

Laura Jackson, B.S. Graduate School of Biomedical Sciences-Genetics. Primary Research Mentor and Thesis Advisor, Howard Hughes Integrated Biomedical Sciences Program.

Clifford Courville, M.D., Medical Resident, University of Alabama at Birmingham, 2009-11. Research Mentor. [TIME-R Award Recipient]. Pulmonary and Critical Care Fellow. University of Alabama at Birmingham, 2012-Present. Research Mentor. 1st place Poster Presentation, 2013 Pulmonary Update. J. Claude Bennett Award for Excellence in Research by an Associate Fellow, UAB Research Day, 2013.

Hannah Bowers. Summer Undergraduate Honors Research Program, University of Alabama at Birmingham, 2012-2013. Research Mentor.

Venky Mutryam, Ph.D. Postdoctoral Fellow, University of Alabama at Birmingham, 2013-Present. Research Mentor.

Jay Watson, B.S. Medical Student Trainee, University of Alabama at Birmingham; NIH T35 Award Recipient, 2013.

MAJOR LECTURES AND VISITING PROFESSORSHIPS:

- 2007 Invited Oral Presentation, Cystic Fibrosis Foundation Therapeutics. "Nasal Potential Difference Results from Human Trials Utilizing Curcuminoids.", Bethesda, MD.
- 2008 Invited Oral Presentation. "Mucociliary Clearance in CF – Challenges and Opportunities." *Williamsburg CF Conference*, Cystic fibrosis Foundation, Williamsburg, VA.
- 2008 Invited Lecturer. "Addressing the Basic CF Defect." University of California at San Diego, San Diego, CA.
- 2008 Invited Lecturer. "CFTR Abnormalities in COPD." Vertex Pharmaceuticals, La Jolla, CA.
- 2009 Invited Lecturer. "CFTR Therapy." Case Western Reserve University, Cleveland, OH.
- 2009 Plenary Session Keynote Address, North American Cystic Fibrosis Conference. **Rowe SM and Collins F.** "Two Decades of CFTR Research: From Gene Discovery to Therapeutic Target", Minneapolis, MN.
- 2010 Keynote Presentation , European Cystic Fibrosis Society Research Meeting. Clancy JP and Rowe SM. "CFTR modulators: Targets and Opportunities." Lisbon, Portugal.
- 2011 Invited Lecturer. "From Bench to Bedside: New Insights into CFTR Modulation." Stanford University, Palo Alto, CA. (Feb 2011)
- 2011 Keynote Speaker ,California CF Consortium. "Update on Promising and Emerging Therapies in Cystic Fibrosis." Carmel, CA. (Feb 2011)
- 2011 Invited Lecturer, Pulmonary Medicine Grand Rounds, University of Iowa, Iowa City, IO (March 2011)
- 2011 Keynote Speaker. Carl F. Doershuk Cystic Fibrosis Lecture, Case Western Reserve University, Cleveland, OH (April 2011)
- 2011 Keynote Speaker, CF Education Day, Johns Hopkins University, Baltimore, MD (August 2011)
- 2011 Keynote Speaker, Randall Ruprecht Memorial Lecture, University of California San Francisco (October 2011)
- 2012 Invited Speaker, "Acquired CFTR Dysfunction in COPD: A New Therapeutic Target." University of Cincinnati, Cincinnati, OH (May 2012)
- 2012 Invited Speaker, "Acquired CFTR Dysfunction in COPD: A New Therapeutic Target." Vanderbilt University, Nashville, TN (July 2012)
- 2012 Plenary Session, Keynote Speaker, North American CF Conference. Rowe SM and Skach W.

- 2013 Invited Speaker, Regional CF Research Day. "A New Era of CF Therapeutics."
University of Washington, Seattle, Washington (May 2013).
- 2013 Invited Speaker, "Acquired CFTR Dysfunction in Chronic Bronchitis." University of
Pittsburgh, Pittsburgh, PA (Sep 2013)

Please see also Oral Presentations at Scientific Meetings, below.

GRANT SUPPORT: (PAST AND CURRENT)

Active:

NIH R01HL105487-02 (Rowe) 02/01/11 – 01/31/16 3.6 CM (30%)
NIH/NHLBI \$288,500 (\$1,378,200 Total Direct)

Title: *Molecular Pathogenesis and Phenotype of Acquired CFTR Dysfunction in COPD*

The purpose of this project is to define COPD clinical characteristics attributable to relative CFTR dysfunction, the mechanisms that underlie this phenomenon, and the propensity of CFTR potentiators to reverse this defect. Completion of the proposal will establish a novel COPD sub-phenotype and set the stage for a new treatment paradigm in COPD.

Role: Principal Investigator

Overlap: None

NIH R01HL1116213-01 (Rowe/Tearney) 09/26/12 – 06/30/16 1.2 CM (10%)
NIH/NHLBI \$457,819 (\$1,731,046 Total Direct)

Title: *Functional Anatomic Imaging of CF Patients with Early Lung Disease Using microOCT*

To develop optical coherence tomography for use in vivo in human subjects to determine the functional epithelial microanatomy in relation to CFTR function.

Role: Multiple Principal Investigators

Overlap: None

P30 DK072482 (Sorscher) 05/01/012 – 04/30/17 1.2 CM (10%)
NIH/NIDDK \$593,833 (\$3,750,000 Total Direct)

Title: *UAB CF Research and Translation Core Center*

This P30 provides 3 cores (Cell Model and Assay Core, Animal Models Core, and Clinical and Translational Core) to CF investigators at UAB and collaborating sites to improve understanding of the most basic underpinnings of cystic fibrosis pathogenesis and the ways this information can be aggressively applied to experimental therapeutics. Two Pilot and Feasibility projects are also supported through the P30.

Role: Director of Core C: Clinical Core.

Overlap: None

R01GM094792 (Baasov PI) 4/1/11-3/31/16 0.24CM (2%)
NIH/NIGMS \$91,930 (\$631,275 Total Direct)

Title: *Tuning Aminoglycosides for Treatment of Genetic Diseases*

Subcontract: Testing suppression of nonsense mutations in a cystic fibrosis disease model.

The major goal of this project is to test the ability of novel aminoglycoside derivatives to suppress nonsense mutations in vitro and in a transgenic CFTR-G542X mouse model.

Role: Subcontract Co-investigator

Overlap: None

Synedgen NIH SBIR Sub (Baker) 03/01/13 – 09/30/13 0.60 CM (5%)
Synedgen, Inc. \$31,742

Title: *Evaluation of Microrheology Characteristics Determined by Particle Tracking MicroRheology*

The purpose of this is to characterize the effects of PAAG molecules on the rheology of expectorated human sputum and its transport.

Role: (Co-Investigator; Subcontract PI)

Overlap: None

ROWE09CS0 (Rowe) 10/01/09 - 09/30/13 1.8 CM (15%)

Cystic Fibrosis Foundation Therapeutics \$52,640

Title: Special Consultant for Translational Science

The purpose is for Dr. Rowe to serve as a Special Consultant for Translational Science for CFFT.

Role: Translational Science Consultant

Overlap: None

ROWE10XX0 (Rowe) 05/01/10 – 12/31/13 0.06CM

(0.5%)

CFF \$100,000

Title: *Mechanistic Link Between Rescue of CFTR Mediated Anion Transport, Airway Surface Liquid Regulation, and Mucociliary Transport by CFTR Modulators*

The goal of this project is to determine the limits of CFTR activation necessary to restore mucociliary transport in respiratory epithelia.

Role: Principal Investigator

Overlap: None

CLANCY05Y2 (Rowe) 01/01/13 – 12/31/13 0.60 CM

(4.12%)

Cystic Fibrosis Foundation \$ 206,201

Title: *UAB Cystic Fibrosis Therapeutics Development Network – Center for CFTR Detection*

The main goals of this project are to serve as the National NPD resource education, and training center and identify new methods to detect CFTR activity in vivo.

Role: Principal Investigator

Overlap: None

CLANCY09YO (Rowe) 01/01/13 – 12/31/13 0.60 CM

(4.12%)

Cystic Fibrosis Foundation Therapeutics \$144,613

Title: *UAB Cystic Fibrosis Translational Development Center*

The main goals of this project are to provide funding and infrastructure for support of Phase I and Phase II clinical trials in Cystic Fibrosis patients through the Therapeutic Development Network.

Role: Principal Investigator

Overlap: None

ROWE12XX0 (Rowe) 02/01/12 – 09/30/13 0.0 CM (0%)

Cystic Fibrosis Foundation Therapeutics \$89,536

Title: *Characterization of Novel Translational Readthrough Agents Discovered by High Throughput Screening*

The purpose of this project is to investigate the efficacy and mechanism of novel readthrough agents identified by HTS. Salary and effort for this CF project are subsumed under

ROWE09CSO with CFF approval.

Role: Principal Investigator

Overlap: None

ROWE13A0 04/01/13 – 03/31/14 0.12 CM (1%)
CFFT (Rowe/Bedwell) \$215,853

Title: *Evaluation of Approved Drug Libraries for Translational Read Through Activity.*

The purpose of this is to evaluate a library of approved drugs for activity as agents to induce translational readthrough of premature termination codons

Role: Multiple Principal Investigator

GOAL11K1 (Rowe) 09/01/11 – 08/31/13 0.60 CM (5%)
Cystic Fibrosis Foundation \$22,030

Title: *G551D Observational Study (GOAL-OB-11)*

The purpose of this study is to conduct a multi-center observational study evaluating the effects of Ivacaftor in CF patients with the G551D mutation. Dr. Rowe supervises the multi-center component of four outcome based sub-studies.

Role: Principal Investigator of national multicenter trial

Overlap: None

G551D (Rowe Co-I) 09/01/11 – 08/31/13 0.0 CM (0%)
Seattle Children's (CFF) \$80,672

Title: *G551D Observational Study – Seattle GOAL*

The purpose of this study is to conduct a multi-center observational study evaluating the effects of Ivacaftor in CF patients with the G551D – CFTR mutation. This award is for site specific activity.

Role: Co-Investigator (site activities)

Overlap: None

CFF (Tearney/Rowe) 01/01/08 – 12/31/13 0.0 CM (0%)
Mucociliary Clearance Consortium \$9,537

Title: *Development of Optical Coherence Tomography for Measures of Mucociliary Clearance*

The goal of this project is to develop a novel measure of mucus clearance using reflective tomography.

Note: Salary and effort for this CF project are subsumed under ROWE09CSO with CFF approval.

Role: Co-Investigator

Overlap: None

RT-219427-N (Individual Training Grant (Raju) 07/01/12 – 06/30/14 0.0 CM (0%)
American Lung Association \$65,000 total direct costs

Title: "Systemic CFTR Dysfunction Induced by Acrolein in Cigarette Smoke: A Novel Therapeutic Target for COPD"

Mentor of Post- Doctoral Fellow to investigate the mechanistic features and therapeutic potential in acquired CFTR dysfunction induced by Acrolein.

Role: Mentor

Overlap: None

CFFC-08-11 (Rowe) 07/06/12 – 03/31/14 0.0 CM (0%)
Seattle Children's \$34,151

Title: *Cystic Fibrosis Fibrosing Colonopathy Observational*

The goal of this project is to monitor for fibrosing colonopathy caused by pancreatic enzyme replant therapy.

Role: Subcontract Co-Investigator

Overlap: None

SYNEDGEN (Rowe) 07/17/12 – 07/16/13 0.06CM
(0.5%)
Synedgen, Inc. \$40,099
Title: *Analysis of the Biophysical Effects of Polyglycosamine Derivatives on Human CF Sputum*
The goal of this project is to characterize the effects of polyglycosamine derivatives on CF sputum ex vivo.
Role: Principal Investigator
Overlap: None

DAL-IT-11 (ROWE) 02/01/13 – 01/31/16 0.06 CM
(0.5%)
Forest Research Institute \$169,134
Title: *The Effect of the PDE Inhibitor Roflumilast on CFTR Activity and Mucociliary Transport in vivo*
The purpose of this study is to determine whether roflumilast augments CFTR activity and mucociliary transport in models of the COPD airway.
Role: Principal Investigator
Overlap: None

N6022-1CF1-04-NPD Overread (Rowe) 03/21/13 – 03/20/14 0.06 CM
(0.5%)
N30 Pharmaceuticals, LLC \$37,954
Title: *NPD Reading Service for a Study Entitled A Phase 1b, Randomized, Double-Blind, Placebo-Controlled, Dose Escalation Study of N6022 to Evaluate Safety and Pharmacokinetics in Subjects with Cystic Fibrosis Homozygous for the F508del CFTR Mutation.*
The purpose of this study is to interpret NPD tracings and provide quality assurance and training in the context of a phase 2 clinical trial
Role: Principal Investigator
Overlap: None

Active Clinical Trials Grants and Contracts:

In addition to the grants listed above, Dr. Rowe is involved in other clinical research projects noted below. The cyclic and unpredictable nature of activities in these trials makes it impossible to assign a precise percent effort for each trial. Dr. Rowe has reviewed his clinical study obligations and confirms that the aggregate effort on all trials listed below does not exceed 5% (or 0.60 PM) of institutional effort.

VX09-809-102 (Rowe) 09/27/10 – 09/26/13
Vertex Pharmaceuticals \$156,474
Title: *A Phase 2, Multicenter, Double-Blinded, Placebo-Controlled, Multiple-dose Study to Evaluate Safety, Tolerability, Efficacy, Pharmacokinetics and Pharmacodynamics of VX-809 Alone and in Combination with VX-770 in Subjects with Cystic Fibrosis, Homozygous for the F508del-CFTR Mutation*
Role: Principal Investigator

VX11-661-101 (Rowe) 04/16/12 – 04/15/14
Vertex Pharmaceuticals \$90,925

Title: *A Phase 2 Multicenter, Double Blinded, Placebo Controlled 3 Part Study to Evaluate Safety, Efficacy, Pharmacokinetics, Pharmacodynamics of VX-661 Monotherapy and VX-661/VX-770 Cotherapy in Subjects with Cystic Fibrosis homozygous for the F508del*
Role: Principal Investigator

VX11-770-110 (Rowe) 07/11/12 – 07/10/13
Vertex Pharmaceuticals \$13,740
Title: *A Phase 3 Randomized Double Blind Placebo Controlled Parallel Group Study to Evaluate the Efficacy and Safety of Ivacaftor in Subjects with Cystic Fibrosis Who Have the R117H-CFTR Mutation.*
Role: Principal Investigator

VX11-770-112 (Rowe) 10/08/12 – 10/07/13
Vertex Pharmaceuticals
Title: *A Phase 3 Two Arm Rollover Study to Evaluate the Safety of Long Term Ivacaftor Treatment in Subjects 6 Years of Age and Older with Cystic Fibrosis and a Non G551D CFTR Mutation*
Role: Principal Investigator

VX09-809-103 (Rowe) 05/01/13 – 04/30/14
Vertex Pharmaceuticals
Title: *A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Study of Lumacaftor Monotherapy and in Combination with Ivacaftor in Subjects Ages 12 Years and Older with Cystic Fibrosis, Homozygous for the F508del CFTR Mutation*
Role: Principal Investigator

VX12-770-115 (Rowe) 06/01/13 – 05/31/14
Vertex Pharmaceuticals
Title: *An Ocular- Safety Study of Ivacaftor Treated Pediatric Patients 11 Years of Age or Younger with Cystic Fibrosis.*
Role: Principal Investigator

PENDING

NIH (Rowe/Dransfield) 09/01/2013 – 08/31/2018 3.6 CM (30%)
HL-12-022 \$3,637,022 total direct costs
Title: *The Effect of the CFTR Potentiator Ivacaftor in COPC (TOPIC)*
To conduct a Phase-2 clinical trial evaluating a CFTR potentiator to treat COPD.
Role: Multiple Principal Investigator
Overlap: None

Bayer Pharma AG (Rowe) 04/01/13 – 03/31/14 0.12 CM (1%)
\$20,685
Title: *Evaluation of Putative F508del Corrector Molecules.*
The purpose of this is to evaluate the functional correction of F508del CFTR of a series of compounds with putative F508del processing correctors
Role: Principal Investigator
Overlap: None

COMPLETED

R03DK084110-01 (Rowe) 08/25/2009 – 06/30/2012 0.0 CM (0%)
NIH/NHLBI \$146,438 Total direct

Title: Mechanisms Underlying Protein Repair of CFTR Nonsense Mutations

These experiments will define mechanisms underlying response to stop codon suppression, and examine whether potentiation of CFTR truncation mutants (and readthrough product following suppression of these mutations) represents a viable approach to restore CFTR function and thus ameliorate disease.

Role: Principal Investigator

Guay-Woodford (Rowe, Supplement PI) 07/01/11 – 06/30/12
UUL1025777 \$379,092 Total direct

Parent Grant Number and Title: "UAB Center for Clinical and Translational Science (CCTS)"

Supplement Proposal Title: "In vivo ion transport abnormalities in smoking related lung disease"

The major goal of this grant is to test whether individuals with smoking related lung disease exhibit abnormal ion transport in vivo.

Role: Principal Investigator of Supplement; Co-Director of Pediatric CCTS Component

NIH K23 DK075788 (Rowe) 07/01/2006 - 06/30/2011
NIH/NIDDKI \$118,300 (\$590,066)

Title: *Clinical and Mechanistic Features of Premature Termination Codon Suppression*

The purpose of this project is to study mechanistic features of premature stop codon suppression of CFTR, and perform clinical testing of a novel agent utilizing this treatment strategy.

Role: Principal Investigator

Guay-Woodford (Rowe, Supplement PI) 09/29/2009 – 03/31/2011
IUL 1RR025777-01 \$500,000

CTSA Oversight Committee: CSTA Consortium Child Health Oversight Committee (CC-CHOC)

Parent Grant Number and Title: "UAB Center for Clinical and Translational Science (CCTS)"

Supplement Proposal Title: "Nasal Potential Difference Studies Utilizing CFTR Modulators"

The major goal of this grant is to test the potential for flavonoid agents to detect residual CFTR activity in human subjects.

Role: Principal Investigator of Supplement

Flatley Foundation 09/01/11 – 12/31/12
Flatley Discovery Lab, LLC (Rowe) \$200,000

Title: *Development of High through-Put Screening by SD-OCT in Primary Human Bronchial Epithelial Cells*

To develop optical coherence tomography as a high content imaging modality useful for high through put evaluation of CFTR modulators.

ROWE09XX0 03/01/2009 – 02/28/2011
Cystic Fibrosis Foundation \$50,000

Title: Ussing Chamber Studies of CFTR Modulators

The goal of this project is to characterize the activity of CFTR modulators in human epithelia.

Role: Principal Investigator

Note: Salary support for this CF account is provided by and effort is subsumed under agreement with CFF.

ROWE08XX0 (Rowe)	09/01/2008 – 12/31/2010	
Cystic Fibrosis Foundation	\$23,148	
Title: CFTR Activity of Novel F508 Corrector Agents		
Role: PI		
The goal of this project is to measure the activity of novel compounds developed based on CFTR crystal features.		
PTC124-GD-009-CF (Rowe)	03/01/2009 – 12/31/2012 (NCE)	0.24 CM (2%)
PTC Therapeutics	\$92,335	
Title: A Phase 3 Efficacy and Safety Study of PTC124 as an Oral Treatment for Nonsense-Mutation-Mediated Cystic Fibrosis		
The purpose of this study is to perform a Phase 3 clinical trial to test the efficacy and safety of PTC124 in CF patients with nonsense mutations.		
Role: Principal Investigator		
PTC124-GD-009-CF (Rowe)	04/01/09 – 12/31/12 (NCE)	0 CM (0%)
PTC Therapeutics, Inc.	\$321,003	
<i>Nasal PD central reading services for clinical trial entitled: A Phase 3 Efficacy and Safety Study of PTC124 as an Oral Treatment for Nonsense-Mutation-Mediated Cystic Fibrosis</i>		
The main goals are to provide interpretive services of NPD data for the clinical study of PTC124 in CF patients.		
Role: Principal Investigator		
VX11-770-110 (Rowe)	07/11/2012 – 07/10/2013	0.0 CM (0%)
Vertex Pharmaceuticals	\$16,440	
A Phase 3, Randomized, Double-Blind, Placebo Controlled Parallel-Group Study to Evaluate the Efficacy and Safety of Ivacaftor in Subjects with Cystic Fibrosis Who Have the R117H-CFTR Mutation.		
The purpose of this study is to conduct phase 2 testing of the CFTR potentiator ivacaftor in CF subjects with the R117H CFTR mutation.		
Role: Principal Investigator		
VX08-770-105	05/17/11 – 05/16/13	0.12 CM (1%)
Vertex Pharmaceuticals	\$23,676	
Title: An Open-Label, Rollover Study to Evaluate the Long Term Safety and Efficacy of VX-770 in Subjects with Cystic Fibrosis		
The purpose of this study is to perform an open label extension component of a Phase 3 clinical trial to test the efficacy and safety of VX-770 in CF patients with the G551D mutation.		
Role: Principal Investigator		
VX-08-770-102	07/10/2009 – 07/09/2011	
Vertex Pharmaceuticals	\$94,480 (\$238,090)	
Title: A Phase 3, Randomized, Double-Blind, Placebo Controlled Parallel Group Study to Evaluate the Efficacy and Safety of VX-770 in Subjects with Cystic Fibrosis and the G551D Mutation		
The purpose of this study is to perform a Phase 3 clinical trial to test the efficacy and safety of VX-770 in CF patients with the G551D mutation.		
Role: Principal Investigator		
VX09-809-101	01/01/2009 – 12/31/2009	
VX09-809-101-NPD	\$73,735	

Title: NPD Overreading Services for Clinical Trial Entitled "A Randomized, Double-Blind, Placebo-Controlled Multiple Dose Study of VX-809 to Evaluate Safety, Pharmacokinetics, and Pharmacodynamics of VX-809 in Cystic Fibrosis Study Homozygous for the Δ F508-CFTR Gene Mutation

The purpose of this service agreement is for the UAB Center for CFTR Detection (UAB CCD), under the direction of Steven M. Rowe to provide centralized support of Nasal Potential Difference (NPD) utilization for the above referenced protocol.

Role: PI

VX06-770-101 (Rowe) 05/04/2007 – 05/03/2009

Vertex Pharmaceuticals \$65,282 (\$65,282)

Title: A Phase IIa randomized, double-blind placebo-controlled study of VX-770 to evaluate safety, pharmacokinetics, and biomarkers of CFTR activity in cystic fibrosis (CF) subjects with genotype G551D

Role: Principal Investigator

QAU145A2201 (Rowe) 06/11/2007 – 04/30/2009

Novartis Pharmaceuticals \$146,801 (\$146,801)

Title: A two-part, randomized, double-blind, placebo-controlled, ascending single-dose, adaptive study to evaluate safety, tolerability, pharmacokinetics and pharmacodynamics of QAU145 administered via a nasal spray pump to patients with cystic fibrosis.

Role: Principal Investigator

08-110 (Clancy) 05/28/2008 – 05/27/2009

Inspire Pharmaceuticals \$39,019 (\$39,019)

A Phase 3, International, Multi-Center, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Efficacy and Safety Study of Denufosol Tetrasodium Inhalation Solution in Patients with Cystic Fibrosis Lung Disease and FEV1 greater than or equal to 75% Predicted.

Role: Co-Investigator

Rowe XX0 (Rowe) 02/01/2008 – 01/31/2009

Cystic Fibrosis Foundation \$5,000

Title: Examination of the Metabolome of CF and Non-CF Tissues from Nasal Polyps and Rectal Mucosal Biopsy Samples

The main goal of this project is to define the 'metabolome' of CFTR expressing primary cells isolated from human subjects.

Role: PI

CFF C001-06 (Gutierrez) 07/01/04 – 06/30/08

Cystic Fibrosis Foundation \$332,606

Title: *Cystic Fibrosis Foundation for Care, Teaching, and Research*

Role: Co-Investigator

CLANCY05Y2 (Clancy) 09/01/2006 – 10/31/2008

Cystic Fibrosis Foundation \$149,468 (\$296,104)

Title: *UAB Cystic Fibrosis Therapeutics Development Network – NPD Reading Resource Center Core*

The main goals of this project are to serve as the National NPD reading resource center and identify new methods of detecting CFTR activity in vivo.

Role: Co-Director

FDGP (Rowe, Clancy, Soscher)	08/14/2006 - 08/13/2007
Faculty Development Grant Program	\$10,000
University of Alabama at Birmingham	
Title: <i>A New Assay for Detecting CFTR Activity in Human Subjects</i>	
The purpose of this project is to develop fluorescence-based halide efflux as a means to evaluate CFTR activity in airway cells from human subjects, and compare it to other conventional assays of CFTR activity.	
Role: Principal Investigator	
PTC124-GD-003-CF (Clancy)	09/21/2005 - 09/24/2007
PTC Therapeutics, Inc.	\$215,050
Title: A Phase 2 Study of PTC124 as an Oral Treatment for Nonsense-Mutation Mediated CF Mutations.	
The purpose of this project is to test the novel agent PTC124 in CF subjects harboring premature stop mutations.	
Role: Co-investigator	
CIFA 2004-06 (Rowe)	07/01/2004 - 06/30/2006
Clinical Investigative Fellowship Award	\$80,000
Department of Medicine. UAB Hospital	
Title: Aminoglycosides to Activate Cystic Fibrosis Genes in Patients with Cystic Fibrosis.	
The goal of this project is to provide research funding for ongoing patient oriented research using aminoglycosides to promote premature stop mutation suppression.	
Role: PI	
ROWE05D0 (Rowe)	07/01/2005 - 6/30/2006
Cystic Fibrosis Foundation	\$62,600
Fourth Year Clinical Fellowship	
Title: Suppression of Premature Stop Mutations in CFTR	
The goal of this award is to provide salary and research support for translational studies inducing readthrough of premature stop mutations in the cystic fibrosis transmembrane conductance regulator.	
Role: Principal Investigator	
WBF 2003-04 (Rowe)	07/01/2003-6/30/2004
Walter B. Frommeyer, Jr. Fellowship	\$10,000
Department of Medicine, UAB Hospital	
The goal of this fellowship is to fund tuition for the Master's Science of Public Health in Clinical Research and related research activities.	
Role: Principal Investigator	
ROWE 02B0 (Rowe)	07/01/2002-06/30/2004
Cystic Fibrosis Foundation	\$86,350
Title: First and Second Year Clinical Fellowship	
The goal of this project is to sponsor clinical and research training in Combined Medicine/Pediatric Pulmonology with an interest in cystic fibrosis clinical research.	
Role: Principal Investigator	
CLANCY02Y0 (Clancy)	11/01/2002 – 10/31/2008
Cystic Fibrosis Foundation	\$97,208
Role: Co-Investigator	

Title: *UAB Cystic Fibrosis Therapeutic Development Center*

The main goals of this project are to provide funding and infrastructure for support of Phase I and Phase II clinical trials in Cystic Fibrosis patients through the Therapeutic Development Network

Role: Co-Investigator

NIH Loan Repayment Program (Rowe) 07/01/2003 – 06/30/2007

NIH Variable

Title: Suppression of Premature Stop Mutations in CFTR

Provides student loan reimbursement for physician-scientists committed to clinical research.

Role: PI

OTHER:

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- Rowe SM**. "Update on CF Outcomes: Nasal Potential Difference." *Cystic Fibrosis Therapeutics Development Network Annual Meeting*, 2008, Seattle, WA. [Oral Presentation].
- Rowe SM**. "Intestinal Current Measurement as CFTR Outcome." *Cystic Fibrosis Therapeutics Development Network Annual Meeting*, 2008, Seattle, WA. [Oral Presentation].
- Rowe SM**. "PTC124 as Therapy for Nonsense- Suppression-Mediated Cystic Fibrosis." *Cystic Fibrosis Therapeutics Development Network Annual Meeting*, 2008, Seattle, WA. [Oral Presentation].
- Rowe SM**. "Correction of CFTR in Polarizing Airway and Non-airway Monolayers." *Williamsburg CF Conference*, Cystic fibrosis Foundation, 2008, Williamsburg, VA. [Oral Presentation].
- Rowe SM**. "Nasal Potential Difference – The Next Era of NPD Measures." CF Therapeutics Development Network Annual Meeting, Denver, CO, March 2009. Co-Chair, CFTR Dependent Outcome Measures. [Oral Presentation].

- Rowe SM**, Solomon GM, Reeves G, Young H, Fulton JC, Sthanam M, Abbi S, Roberts A, Renard D, Harris JL, Danahay H, Waltz DA, Clancy JP. "Correction of Sodium Transport with Nasal Administration of the Prostatic Inhibitor QAU145 in CF Subjects", North American CF Meeting, Orlando, 2008 [Oral Presentation].
- Accurso FJ, **Rowe SM**, Durie PR, Konstan MW, Dunitz J, Hornick DB, Sagel SD, Boyle MP, Uluer AZ, Upadhyay D, Ramsey BW, Freedman SD, Dong Q, Ahmad AM, Ordonez CL, Clancy JP, Ashlock MA. "Interim results of Phase 2a Study of VX-770 to Evaluate Safety, Pharmacokinetics, and Biomarkers of CFTR activity in Cystic Fibrosis Subjects with G551D." *European CF Meeting*, Prague, 2008. [Oral Presentation].
- Accurso FJ, **Rowe SM**, Durie PR, Konstan MW, Dunitz J, Hornick DB, Sagel SD, Boyle MP, Uluer AZ, Upadhyay D, Ramsey BW, Freedman SD, Dong Q, Ahmad AM, Stone AJ, Olson ER, Ordonez CL, Clancy JP, Campbell PW, Ashlock MA. "Interim Results of Phase 2A Study of VX-770 to Evaluate Safety, Pharmacokinetics, and Biomarkers of CFTR Activity in Cystic Fibrosis Subjects with G551D". North American Cystic Fibrosis Foundation Annual Meeting, 2008, Orlando, FL [Oral Presentation].
- Bernard KF, **Rowe SM**, Fan L, Fortenberry J, Sthanam M, Clancy JP, Gaggar A. "Inhibition of CFTR Mediated CL- Current by Neutrophil Elastase". North American Cystic Fibrosis Foundation Annual Meeting, 2008, Orlando, FL [Oral Presentation].
- Liu L, Oh WY, Suter MJ, Gulati A, Bouma BE, **Rowe SM**, Tearney GJ. "UltraHigh-resolution 3D Optical Imaging of the Swine Pulmonary Airways.", American Thoracic Society International Conference, San Diego, 2009 [Oral Presentation].
- Rowe SM**. "Suppression of Premature Stop Mutations." American Thoracic Society International Conference, San Diego, 2009 [Oral Presentation].
- Rowe SM**, Chmiel J. "Correcting the Basic CF Defect." American Thoracic Society International Conference, San Diego, 2009 [Moderator and Oral Presentation].
- Rowe SM**, Tang L, Backer K, Woodward B, Mazur M, Buckley-Lanier J, Schwiebert E, Baasov T, Bedwell DM. "Enhanced Activity for Translational Readthrough and Reduced Toxicity Demonstrated by the Synthetic Aminoglycoside NB54". North American CF Conference, 2009, Minneapolis, MN [Oral Presentation].
- Pyle LC, Fan L, Fortenberry J, Tang L, Backer K, Mazur M, Clancy JP, Sorscher EJ, **Rowe SM**. "Comprehensive Spectrum of Activity Analysis for $\Delta F508$ -CFTR Correctors". North American CF Conference, 2009, Minneapolis, MN [Oral Presentation].
- Solomon GM, Konstan M, Wilschanski M, Billings J, Sermet I, Accurso F, Vermeleun F, Young H, Reeves G, Sabbatini G, Mayer-Hamblett N, Ashlock M, Clancy JP, **Rowe SM**. "Universal protocol for nasal potential difference studies: results of an international multi-center clinical trial". North American CF Conference, 2009, Minneapolis, MN [Oral Presentation].
- Liu L, Shastry S, Sloane P, Mazur M, Parker S, Bouma BE, Tearney GJ, **Rowe SM**. A New Assay for Modulation of Ion Transport and Mucus Clearance in Cells and Tissues: Video-rate ultrahigh-resolution 3D Optical Imaging by Spectral Domain Optical Coherence Tomography." *European Cystic Fibrosis Society Research Meeting*, Lisbon, Portugal, 2010. [Oral Presentation, Abstract]
- Rowe SM**. "Update on Emerging Therapies for Cystic Fibrosis". American Thoracic Society International Conference, New Orleans, LA, 2010. [Symposia Speaker.]
- Rowe SM**. "VX-770 from the Bench to the Bedside and Back Again: New Insights from CFTR Modulation". North American Cystic Fibrosis Conference, Baltimore, MD, 2010. [Symposia Speaker.]

Rowe SM. "Lower airway potential difference measurements in patients with COPD". North American Cystic Fibrosis Conference, Baltimore, MD, 2010. [Symposia Speaker.]

Rowe SM. "Parallel effects of VX-770 on transepithelial potential difference in vitro and in vivo. European CF Society Meeting, Valencia, Spain, 2010. [Symposia Speaker].

Rowe SM. "Measuring CFTR Activity in Clinical Trials: In Vivo Assays". North American Cystic Fibrosis Conference, Anaheim, CA, 2011. [Symposia Speaker.]

Rowe SM, Boyle MP. "Combinations of Correctors and Potentiators for F508del CFTR". North American Cystic Fibrosis Conference, Anaheim, CA, 2011. [Symposia Speaker.]

Rowe SM. "CFTR Outcome Measures: The Best Approach". Novartis Clinical Symposia, Anaheim, CA, 2011. [Symposia Speaker.]

Rowe SM. "Acquired CFTR Dysfunction in COPD." CF Data Conference, University of Cincinnati, 2012.

Rowe SM. "Acquired CFTR Dysfunction in COPD." Mechanisms and Implications of Mucus Accumulation in COPD (Chairs: Dransfield/Woodruff). [Symposia Speaker]. American Thoracic Society International Meeting, May 2012.

Rowe SM. "Systemic CFTR Dysfunction in COPD." Vanderbilt University, Nashville, TN, August, 2012.

Rowe SM. "Systemic CFTR Dysfunction in COPD." Stanford University, Palo Alto, CA, March, 2013.

Rowe SM. "Systemic CFTR Dysfunction in COPD." Keynote Speaker, CF Education Day, Stanford University, Palo Alto, CA, March, 2013.

Rowe SM. "Systemic CFTR Dysfunction in COPD." [Symposia Speaker] European CF Basic Science Meeting, March 2013, Malaga, Spain.

Rowe SM. "Measuring CFTR Function in Clinical Trials." European CF Basic Science Meeting, March 2013, Malaga, Spain.

Rowe SM. "Beyond FEV1: Biomarkers in Adult Airway Disease." [Symposia Speaker] International Society for Aerosols in Medicine. April 2013, Chapel Hill, NC.

Rowe SM. "Functional Anatomic Imaging." Center for Cardiovascular Sciences, UAB, April 2013.

Rowe SM. "Functional Anatomic Imaging of the CF Airway." Gregory Fleming James Cystic Fibrosis Research Center, UAB, April 2013.

Rowe SM. "Functional Anatomic Imaging as a Gene Therapy Outcome Measure." American Society of Gene & Cell Therapy, Salt Lake City, UT, May 2013.

Rowe SM. "Challenges and Opportunities of CF Therapeutics." American Thoracic Society International Meeting, Philadelphia, PA, May 2013.

Rowe SM. "Acquired CFTR Dysfunction in COPD." Invited Speaker, 2013; University of Washington, Seattle, Washington.

Rowe SM. "A New Era of CF Therapeutics." Invited Speaker, 2013; University of Washington, Seattle, Washington.

Rowe SM. "The G551D Observational Study: Insights into CFTR modulation from the clinic". North American Cystic Fibrosis Conference, Salt Lake City, UT, 2013. [Symposia Speaker, Workshop Presenter.]

Rowe SM. "Class IV and V Mutations." Ahead of the Curve, CME Education Event, Salt Lake City, UT, 2013.

Scientific papers presented at local and regional meetings

- Rowe SM.** "Update on Premature Stop Mutation Suppression." CF Research Development Program External Advisory Committee, University of Alabama at Birmingham, 2004.
- Rowe SM.** "Potential role of HMGB1 in CF Pulmonary Disease." CF Research Development Program External Advisory Committee, University of Alabama at Birmingham, 2006.
- Rowe SM.** "Acquired CFTR Dysfunction in COPD." Pulmonary Grand Rounds, UAB, 2012.

Invited workshops, etc. at international and national postgraduate courses and meetings and at other universities

- Rowe SM.** "Pediatric Clinical Fellows Session" *North American Cystic Fibrosis Foundation Annual Meeting*, 2004, St. Louis, MO. [Moderator].
- Rowe SM.** "Molecular Approaches to CF Therapy" *North American Cystic Fibrosis Foundation Annual Meeting*, 2006, Denver, CO. [Moderator].
- Rowe SM.** "Biomarkers of Airway Physiology & Host Defense" *North American Cystic Fibrosis Foundation Annual Meeting*, 2007, Anaheim, CA. [Moderator].
- Rowe SM.** "Challenges and Opportunities in CF Career Development: A Peer Discussion for Academic & Junior Faculty." Roundtable discussion leader, *North American Cystic Fibrosis Foundation Annual Meeting*, 2007, Anaheim, CA. [Moderator].
- Rowe SM.** "Measures of CFTR Activity in Clinical Trials." *Cystic Fibrosis Therapeutics Development Network Annual Meeting*, 2008, Seattle, WA. [Workshop Leader, Oral Presentation].
- Rowe SM.** "Nasal Potential Difference in Industry Sponsored Clinical Trials." *Cystic Fibrosis Therapeutics Development Network Annual Meeting*, 2008, Seattle, WA. [Workshop Leader, Oral Presentation].
- Rowe SM.** "Challenges and opportunities in CF Career Development: a Peer Discussion for Academic Junior Faculty." *North American Cystic Fibrosis Conference*, 2007, Anaheim, CA. [Workshop Leader, Oral Presentation].
- Rowe SM.** "CFTR Potentiators in NPD Trials." Vertex Pharmaceuticals Biomarker Committee, Webconference, CF Foundation, 2008.
- Rowe SM.** "Non-Perfusion Nasal PD Technique," European Cystic Fibrosis Diagnostic Network Society, 2009, Liverpool England, Training Session on Electronic Data Capture and NPD Techniques.
- Rowe SM.** "Transepithelial Nasal Potential Difference," Training Session PTC124-009 Investigator's Meeting, 2009, Atlanta, GA
- Rowe, SM.** "Nasal Potential Difference," Vertex Investigators Meeting, 2009, Miami, FL.
- Rowe, SM.** "New Operator Training for Nasal Potential Difference", 2-day Training Session, University of Alabama at Birmingham, 2009.
- Rowe, SM.** Facilitator, Thematic Poster Session, Airway Biology, 2009 American Thoracic Society International Meeting, New Orleans, LA/

Invited lectures at local and regional courses and meetings (Selected):

- Rowe SM.** "New Developments in Cystic Fibrosis Therapies." Pulmonary Grand Rounds, University of Alabama at Birmingham, 2003.
- Rowe SM, Leon KJ.** "Bench to Bedside: Cystic Fibrosis—Optimization and Replacement of CFTR." Medical Grand Rounds, University of Alabama at Birmingham, 2004.

- Rowe SM.** "Premature Stop Suppression of CFTR." Pulmonary Grand Rounds, University of Alabama at Birmingham, 2005.
- Rowe SM.** "Nonclassic Cystic Fibrosis." Pediatric Grand Rounds, University of Alabama at Birmingham, 2006.
- Rowe SM.** "Successful Research during Residency." Caraway Internal Medicine Program, Birmingham, AL, 2006.
- Rowe SM.** "Complications of CF." Cystic Fibrosis Provider Education Day, University of Alabama at Birmingham, 2006.
- Rowe SM.** "A Common Foe in Sepsis and CF: Potential role of HMGB1 in CF Pulmonary Disease." CF Research Center Workshop, University of Alabama at Birmingham, 2006. Also presented at Pulmonary Grand Rounds, University of Alabama at Birmingham, 2006.
- DePuy P, Hammers H, **Rowe SM.** Pediatric Grand Rounds, 2007 [Clinical Pathologic Correlation, Faculty Discussant].
- Rowe SM.** "Introduction into Academic Medicine – Translational Research." 2007 Pulmonary Conference.
- Rowe SM.** "CF Genetics: Understanding Mutations and their Consequences." Cystic Fibrosis Provider Education Day, University of Alabama at Birmingham, 2007.
- Rowe SM.** "Detection of Rescued CFTR -- Lessons from emerging clinical trials." CF Research Center Workshop, University of Alabama at Birmingham, 2008.
- Rowe SM.** "Correcting the Basic CF Defect: On the Brink of Reality." Pulmonary Grand Rounds, University of Alabama at Birmingham, 2008.
- Rowe SM.** "Correcting the Basic Cystic Fibrosis Defect: CFTR Ion Transport to the Rescue" Nephrology Research and Training Conference, 2009.
- Rowe SM.** "Cystic Fibrosis" Medical Residents Teaching Conference, Jan 2009.
- Rowe, SM.** "Correcting the Basic Defect: Protein Repair Strategies in Cystic Fibrosis", Clinical Research Seminar, Department of Medicine, March 2009.
- Rowe, SM.** "A 53-year-old Man with Shortness of Breath, Jaundice, and Right Hand Weakness", Faculty Discussant, Clinical Pathologic Conference, Department of Medicine, UAB, May 2009.
- Rowe SM.** "Human studies protocols-preparation and helpful hints/IRB applications and guiding principles", Combined Fellow's Conference, UAB, November 2010.
- Rowe SM.** "Update on CF Research." CF Family Education Day, 2012

MISCELLANEOUS:

Films, educational tapes, syllabi, software packages and courses developed, etc.

Rowe SM. Performance of the Nasal Potential Difference Measurement, Educational Video, 2008

Rowe SM "Use of Electronic Data Capture for Nasal Potential Difference Measurements" Video, 2009.

Rowe SM "Use of Non-Perfusion Catheter for Nasal Potential Difference Measurements", Video, 2009.

Rowe SM "NPD Studies for Clinical Trials", Video, 2009. In collaboration with PTC Therapeutics.

Rowe SM, Clancy JP “NPD Training Course for New Operators” 6 Center Training Session, 2/2009, University of Alabama at Birmingham, Birmingham, AL. Sponsored by CF Therapeutics Development Network.

Rowe SM, Clancy JP “NPD Training Course for New Operators” 6 Center Training Session, 7/2009, University of Alabama at Birmingham, Birmingham, AL. Sponsored by CF Therapeutics Development Network.

Rowe SM, Clancy JP “NPD Training Course for New Operators” 6 Center Training Session, 4/2010, University of Alabama at Birmingham, Birmingham, AL. Sponsored by CF Therapeutics Development Network.

Rowe SM. “Cystic Fibrosis.” Series “Healthy Body, Healthy Mind.” National Public Television. [Expert Discussant.]

Rowe SM. “New Therapies in Cystic Fibrosis Directed Toward the Basic Defect.” *eCysticFibrosis Review*—Volume 4, Issue 8, Includes Review Manuscript, Newsletter Summary, Post-test, and PodCast.