

HARRY KARMOUTY-QUINTANA, PhD

Associate Professor – Tenured

Department of Biochemistry and Molecular Biology
Divisions of Critical Care, Pulmonary and Sleep Medicine, Department of Internal Medicine
The University of Texas Health Science Center Houston (UTHealth) – McGovern Medical School
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Citizenship: US / SPAIN

EDUCATION

2003 BSc Pharmacology with Extramural Year, King's College London, UK
2006 PhD in Pharmacology and Biophysics, King's College London, UK, Thesis work pursued at Novartis Pharma AG, Basel, Switzerland

POST GRADUATE TRAINING

2007 – 2010 Postdoctoral Fellow at McGill University, Canada
2010 – 2012 Postdoctoral Fellow at the University of Texas Medical School at Houston

ACADEMIC AND ADMINISTRATIVE APPOINTMENTS

2012 – 2015 Assistant Professor – Non Tenure Rank (NTR) at the University of Texas Health Science Center at Houston (UTHealth)
2014 – 2015 Associate Member of the Graduate School of Biomedical Sciences of University of Texas Health Science Center at Houston (UTHealth) and MD Anderson Cancer Center
2015 – Present Full Member of the Graduate School of Biomedical Sciences of University of Texas Health Science Center at Houston (UTHealth) and MD Anderson Cancer Center

- 2015 – Present Director, UTHealth Pulmonary Center of Excellence Tissue Bank
- 2015 – Present Assistant Professor – Tenure-Track at the Department of Biochemistry and Molecular Biology University of Texas Health Science Center at Houston (UTHealth)
- 2020 – 2021 Assistant Professor – Cross-appointment at the Divisions of Critical Care, Pulmonary and Sleep Medicine, Department of Internal Medicine, University of Texas Health Science Center at Houston (UTHealth)
- 2021 – Present Associate Professor (with tenure) – Cross-appointment at the Divisions of Critical Care, Pulmonary and Sleep Medicine, Department of Internal Medicine, University of Texas Health Science Center at Houston (UTHealth)

PROFESSIONAL ORGANIZATIONS AND COMMITTEE SERVICE

LOCAL:

- 2007 – 2008 McGill University Postdoctoral Affairs Committee (Chair)
- 2007 – 2009 Postdoctoral Senator, McGill University Senate
- 2008 – 2009 Founder of the Postdoctoral Association of McGill University
- 2009 McGill University, Department of Medicine, Director of the Meakins-Christie Laboratories Search Committee

NATIONAL:

- 2002 – 2003 British Pharmacological Society
- 2007 – 2009 European Academy for Allergology and Clinical Immunology
- 2010 – Present American Thoracic Society
- 2011 – Present American Association for the Advancement of Science (AAAS)
- 2013 – Present European Respiratory Society
- 2012 – 2016 Member of the Pulmonary Circulation Planning Committee of the American Thoracic Society

HONORS AND AWARDS

- 2004 Best poster award at the summer meeting of the British Association for Lung Research (BALR)
- 2005 Best oral presentation at the Novartis 3R (Reduction, Replacement, Refinement of Experimental Models of Disease) symposium
- 2008 Best poster presentation prize for the Junior Member Associate session at the 27th Congress of the European Academy of Allergology and Clinical Immunology (EAACI).
- 2008 Best poster presentation on Mechanism of Asthma at the 27th Congress of the European Academy of Allergology and Clinical Immunology (EAACI).

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| 2009 | Recipient of the Scarlet Key Award, recognizing outstanding leadership in the McGill community. |
| 2011 | Best postdoctoral oral presentation at the Biochemistry and Molecular Biology annual retreat |
| 2011 | Young Scientist Sponsorship Travel Award from the European Respiratory Society |
| 2012 | Third place at the at Gulf Coast Consortia – Lung Research Day poster competition |
| 2012 | Travel Award from the Keystones Symposia |
| 2015 | 1 st place “COPD and Epigenetics” leadership competition organized by BioMedX and Boehringer Ingelheim |
| 2016 | Invited to attend the American Heart Association 2016 Research Leaders Academy |
| 2018 | Poster Travel Award Pulmonary Vascular Research Institute Annual Congress in Singapore |
| 2019 | GRC Carl Strom Underrepresented Minority Fellowship |
| 2019 | Invited to attend the American Heart Association 2019 Research Leaders Academy |
| 2020 | Keystone Symposia Early-Career Investigator Travel Awards (ECITA) |
| 2020 | 2019-2020 Dean’s Teaching Excellence Award |
| 2021 | 2020-2021 Dean’s Teaching Excellence Award |

EDITORIAL APPOINTMENTS

Editorial Board Appointments:

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| 2017-present | Member of the Editorial Board for <i>Pulmonary Pharmacology and Therapeutics</i> |
| 2017-present | Member of the Editorial Board for the <i>American Journal of Respiratory Cell and Molecular Biology</i> |
| 2017 | Lead Editor for <u>“Molecular Mechanisms in Pulmonary Hypertension and Right Ventricle Dysfunction”</u> a Research Topic for Frontiers in Physiology |
| 2020 | Lead Editor for <u>“From development to senescence, bridging the gap in lung fibrosis”</u> a Research Topic for Frontiers in Physiology |
| 2020-present | Member of the Editorial Board for <i>Biomedicines</i> |
| 2020-present | Member of the Editorial Board for <i>Journal of Respiration</i> |

Ad-hoc Journal Reviewer:

American Journal of Physiology – Lung Cellular and Molecular Physiology
American Journal of Respiratory Cell and Molecular Biology
BioFactors
Biomedicines
British Journal of Pharmacology
Cellular and Molecular Life Sciences

EBiomedicine
European Journal of Pharmacology
European Respiratory Journal
Experimental Lung Research
Frontiers in Immunology
Frontiers in Physiology
Frontiers in Medicine
Military Medicine
PLoS One
Pulmonary Circulation
Respiratory Research
Scientific Reports
The FASEB Journal
The Journal of Immunology
The Journal of Advanced Research
Theranostics

SERVICE ON NATIONAL GRANT REVIEW PANELS, STUDY SECTIONS, COMMITTEES:

Service on Grant Review Panels including Study Sections

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| 2016 | Asthma UK |
| 2016 | Netherlands Organisation for Scientific Research (NWO) |
| 2017 | Initiative d' excellence Aix-Marseille, France |
| 2017 | Early Career Review (ECR) program of the Centre for Scientific Review of the NIH |
| 2017 – Current | Regular Member: American Heart Association Vascular Bio & Blood Pressure Committee |
| 2017 | Ad-hoc member Respiratory Integrative Biology and Translational Research Study Section [RIBT], June 22, 2017 meeting |
| 2018 – Current | Ad-hoc member Small Business: Cardiovascular Respiratory Sciences special emphasis panel [ZRG1 CVRS-Q] |
| 2019 – Current | Regular Member: American Heart Association Basic Sciences 3 Committee |
| 2020 | Ad-hoc member Respiratory Integrative Biology and Translational Research Study Section [RIBT], June 18, 2020 meeting |
| 2020 | Academy of Finland, Reviewer for COVID-19 vaccines and pharmaceutical development |
| 2020 | Agency for Health Quality and Assessment of Catalonia, Rare Diseases Panel |
| 2020 | Ad-hoc member Respiratory Integrative Biology and Translational Research Study Section [RIBT], October 22, 2020 meeting |
| 2021 | Agence Nationale de la Recherche (ANR) French National Agency of Research Résilience-COVID-19 project. March 2021 |

- 2021 Chairperson Special Emphasis Panel: Member Conflict: Lung Diseases ZRG1 CVRS-N (03) Study Section March 11, 2021
- 2021 Alzheimer's Association, Program to promote diversity, June 2021 cycle
- 2021 Ad-hoc member Respiratory Integrative Biology and Translational Research Study Section [RIBT], June 24, 2021 meeting
- 2021 Swiss National Science Foundation (SNSF), lung fibrosis panel
- 2021 FY21 Peer Reviewed Medical Research Program (PRMRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP). Pulmonary Fibrosis Panel

University Committees other than UT Health

- 2007 – 2008 McGill University Postdoctoral Affairs Committee (Chair)
- 2007 – 2009 Postdoctoral Senator, McGill University Senate
- 2008 – 2009 Founder of the Postdoctoral Association of McGill University
- 2009 McGill University, Department of Medicine, Director of the Meakins-Christie Laboratories Search Committee

SERVICE TO DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY:

- 2016 – 2021 Co-Director of the BMB Annual Retreat.
I have helped co-direct the BMB retreat for 5 consecutive years
- 2016 – 2017 Biochemistry and Molecular Biology Student Travel Award Committee
- 2021 – current Faculty Search Committee member

SERVICE TO UT HEALTH PULMONARY CENTER OF EXCELLENCE:

- 2010 – 2011 Group Journal Club Coordinator
- 2015 – Present Member of the Executive Committee of the Pulmonary Center of Excellence
- 2015 – Present Director of the UTHealth Pulmonary Center of Excellence Biobank
Established collaborations with national and international academic institutions.
- 2018 – Present Established the TMC Lung Biology Seminar Series to foster lung biology research in Houston.

SERVICE TO UT HEALTH CENTER FOR PERIOPERATIVE MEDICINE:

- 2018 – Present Executive Board Member of the UTHealth Center for Perioperative Medicine
- 2019 – 2019 Co-Director of the first Center for Perioperative Medicine Annual Retreat
- 2020 – Present Co-Director of the Center for Perioperative Medicine Retreat
- 2019 – 2020 Member of the Faculty Search Committee for the Center for Perioperative Medicine / Department of Anesthesiology

2019 – 2020 Initiated visiting student exchange with MSci students from King's College London (UK)

SERVICE TO THE BIOCHEMISTRY AND CELL BIOLOGY (BCB) GSBS PROGRAM:

2017 – Present Interview candidates for the PhD program for the UTHealth/MDAnderson GSBS
2018 – 2019 Chair for Program Examination Committee for the GSBS program in Biochemistry and Cell Biology
2019 – 2020 Alternate Chair for Program Examination Committee for the GSBS program in Biochemistry and Cell Biology
2019 – 2022 BCB Steering Committee Member
2020 – 2021 Co-Director BCB Graduate Program
2021 – 2024 Program Director BCB Graduate Program

SERVICE TO GRADUATE SCHOOL COMMITTEES:

2019 – 2020 Alternate for GSBS Academic Standards Committee
2020 – 2021 GSBS Academic Standards Committee
2021 – 2024 GSBS Program Directors Committee member

SERVICE TO GSBS ADVISORY STUDENT COMMITTEES:

2014 – 2016 GSBS Advisory Committee for Alexandria Plumer (PhD)
2015 – Present GSBS Advisory Committee for Danielle Little (PhD)
2016 GSBS Examination Committee for Danielle Little (PhD)
2016 – 2019 GSBS Advisory Committee for Junsuk (Josh) Ko (PhD)
2017 – 2018 Biochemistry and Cell Biology Graduate Program Steering Committee
2017 GSBS Examination Committee for Jie (Jessica) Chen (PhD)
2018 – Present GSBS Advisory Committee for Nathaniel Berg (PhD)
2018 – 2020 GSBS Advisory Committee for Kaavya Giridhar (MSc)
2018 – 2019 GSBS Advisory Committee for Jiah Yang (MSc)
2018 – 2020 GSBS Advisory Committee for Oanh Hoang (MSc)
2020 – Present GSBS Advisory Committee for Micheal Longmire (PhD)
2020 – Present Advisory Committee for Jere, Thandiwe Wangui (PhD – Baylor College of Medicine)
2020 – Present Advisory Committee for Celine Kong (PhD)
2020 – Present Advisory Committee for Sabona Simbassa (PhD)

SERVICE TO MEDICAL SCHOOL COMMITTEES:

2017 – Present Member of the Animal Welfare Committee

2014 – Present Interview candidates for the MD/PhD program for the UTHealth/MDAnderson GSBS
2021 – 2024 Graduate Student Education Committee (GSEC) member – McGovern Medical School

SERVICE TO THE SCIENTIFIC COMMUNITY AT LARGE:

2018 – 2018 Oral presentation moderator at the 12th annual Pulmonary Vascular Research Institute Congress. Singapore January 21-25th 2018
2018 – 2018 Thematic Poster presentation moderator at the American Thoracic Society annual congress. San Diego May 18-23rd 2018
2019 – 2019 Thematic Poster presentation moderator at the American Thoracic Society Annual Congress. Dallas May 17-22nd 2019
2019 – 2019 Thematic Poster presentation moderator at the European Respiratory Society Annual Congress. Madrid September 27th –October 2nd 2019
2020 – 2020 Thematic Poster presentation moderator at the American Thoracic Society Annual Congress. Philadelphia May 16-20th 2020 *Cancelled due to COVID-19**
2021 – 2021 Discussion Leader – “Biological Discoveries to Transform Respiratory Medicine” Lung Development, Injury and Repair Gordon Research Conference. Waterville Valley NH, Nov 7-12th 2021

SPONSORSHIP OF CANDIDATES FOR POSTGRADUATE DEGREE

2015 – 2019 Scott Collum (PhD Student)
2017 – 2017 Tamara Darwiche (Visiting MSc Student) 6 month *in vivo* research supervisor
2017 – 2017 Lauren Headley (Visiting MSc Student) 6 month *in vivo* research supervisor
2017 – 2017 Mary Fuentes (PhD Student – Rotation)
2017 – Present Cory Wilson (MD/PhD Student)
2018 – Present Nancy Wareing (MD/PhD Student)
2018 – 2019 Alexander Andersohn (PhD Student – Rotation)
2021 – 2021 Maryam Elizondo (MD/PhD Student – Rotation)

SPONSORSHIP OF CANDIDATES FOR POSTDOCTORAL FELLOWS

2016 – 2019 Tinne CJ Mertens, PhD (Postdoctoral Fellow)
2019 – 2019 Wei Wang, MD (Postdoctoral Fellow)
2019 – Present Scott Collum, PhD (Postdoctoral Fellow)
2021 – Present Andrew Peters MD, PhD (Postdoctoral Fellow)

MENTORSHIP OF JUNIOR FACULTY

2021 – Present Pooja Shivshankar, PhD (Instructor)

CURRENT AND PREVIOUS TEACHING RESPONSIBILITIES:

“Emerging Fields in Biochemistry and Molecular Biology: Translational Science and Molecular Medicine (Yang Xia, MD/PhD Director)”

Lecture 8: Translational potential in pulmonary diseases, from mice to humans and back again (Karmouty-Quintana)

Lecture 9: Pulmonary fibrosis & potential therapies; why the wait? (Karmouty-Quintana)

2017-2019

GSBS Elective: “Integrative and Molecular Physiology (Rebecca Berdeaux PhD Director)”

Block 4. Respiratory system

Lecture 13: Pulmonary ventilation, circulation and edema (Karmouty-Quintana)

Lecture 14: Regulation of gas exchange and respiration; transport in blood and tissue fluids (Karmouty-Quintana)

Lecture 15: Respiratory insufficiency: pathophysiology, fibrosis (Karmouty-Quintana)

2017-2019

McGovern Medical School – Problem Based Learning (PBL)

2019 Spring Block 2 Facilitator

2020 Spring Block 1 Alternative Facilitator

MENTORING ACTIVITIES:

McGill University, Canada

2009 Maria Marti Solano (summer student)

2008 Laura Xicota (summer student)

2007 Fiona Martin (summer student)

UTHealth – McGovern Medical School

2011 Jerry Zhang (summer student)

2012 Isabelle Bunge (summer student)

2012 – 2013 Bao Le (summer student)

2012 – 2015 Mesias Pedroza (PhD Student – Primary mentor: Dr. Michael Blackburn)

2014 Simon deLeve (Visiting PhD Student *University of Essen, Germany*)

2012 – 2015 Kemly Philip (MD/PhD Student – Primary mentor: Dr. Michael Blackburn)

2015 – 2017 Scientific Overview Committee for Jennifer Agrusa, MD

2016 – 2018 Ankit Hanmandlu UT Summer Research Program (2016, 2018-current)

2016 – 2016 Heather Sweeney (summer student)

2017 – 2017 Melissa Chavez UT Summer Research Program

2017 – 2017 Brent Gudenkauf Visiting MD Student Trainee

2017 – 2017 Chiara Bellochi MD Visiting Scientist

2017 – 2017 Mary Fuentes Rotating PhD Student

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| 2017 – 2020 | Cory Wilson MD/PhD Student |
| 2018 – 2018 | Jiah Yang MS Student |
| 2018 – Present | Nancy Wareing MD/PhD Student |
| 2019 – 2019 | Alexander Andersohn (PhD Student – Rotation) |
| 2019 – Present | Lucy Revercomb (Rice University Undergrad) |
| 2020 – 2020 | Maryam Elizondo (MD/PhD Student – Rotation) |
| 2020 – Present | Anthony Shidid (Rice University Undergrad) |

GRANT SUPPORT

ACTIVE:

5R01 HL138510-04 (PI: Karmouty-Quintana) 1 Jul 17 – 30 Jun 22 5 years
National Institutes of Health (NIH)
8 Percentile
3'UTR shortening in Pulmonary Vascular Disease

R01HL157100-01 (PI: Karmouty-Quintana) 1 Apr 21 – 31 Mar 25 4 years
National Institutes of Health
Sineoculis Homeobox Homolog 1 (Six 1) in Pulmonary Fibrosis
The central hypothesis is activation of the Six1/EYA axis in AEC2 upregulates expression of SASP factors and induces cell hyperplasia in lung fibrosis.

R21CA249924 (PI: Bailey) 1 Jan 21 – 31 Dec 22 2 years
National Institutes of Health
Defining the role of Mst1/Mst2 in regulating metabolic alterations in Ras driven NSCLC
Our central hypothesis is reduced expression of MST1/2 is important in the development of NSCLC.
Role: Co-investigator

Established Investigator Grant (PI: Karmouty-Quintana) 1 Apr 21 – 31 Mar 23 2 years
Scleroderma Foundation
The Role of SIX1 in SSc-ILD
The goal of this proposal is to understand how SIX1 promotes lung fibrosis, the leading cause of death in SSc, through its effects on fibroblast cell physiology and uncover the role of EYA2 in lung fibrosis.

No grant # assigned (PI: Pandit) 1 Apr 21 – 31 Mar 25
Veterans Affairs/Debakey Veterans Affairs Medical Center (Col: sub only)
Anatomic Microniches And Their Contribution To Vascular Remodeling In Pulmonary Hypertension
Dr. Karmouty-Quintana's lab will provide PASMC from the distal and proximal pulmonary vessels from patients with pulmonary hypertension or discarded donor lungs from the UTHealth Pulmonary Center of Excellence Biobank. These PASMCs will be used by Dr. Pandit's team to

identify differences between the proximal and distal vessels. Furthermore, Dr. Karmouty-Quintana and his team will participate in the study design, analysis and interpretation of results.

RFPSA – 2020 Wareing (PI: Wareing) 1 Jul 20 – 30 Jun 22 2 years
Rheumatology Research Foundation (RRF) - Rheumatology Future Physician Scientist Award
The Role of SIX1 in Skin Fibrosis in Systemic Sclerosis
Role: Co-Mentor

Project P003778 (PI: Karmouty-Quintana) 1 Oct 20– 30 Sep 21 1 year
Plexikon, Inc
CD73 inhibitors in lung fibrosis

COMPLETED:

18IPA34170220 (PI: Karmouty-Quintana) 1 Jul 18 – 30 Jun 20 2 years
American Heart Association
Ex-Vivo Lung Perfusion in Acute Lung Injury

W81XWH-19-1-0007 (PI: Karmouty-Quintana) 1 Sep 19 – 31 Ma 21 1.5 years
Department of Defense, Congressionally Directed Medical Research Program
Disrupting Six/Eya signalling as new therapy for lung fibrosis

PR182295 (PI: Blanco) 1 Sep 19 – 31 Ma 21 1.5 years
Department of Defense, Congressionally Directed Medical Research Program
Mitochondrial transplantation: a novel therapy for lung fibrosis

F30HL147508 – Wilson (PI: Wilson) 16 Sep 19 – 15 Sep 22 3 years
National Institutes of Health (NIH)
Pulmonary Fibrosis: Novel Role for Developmental Gene Six1 in Alveolar Type II Cells
Role: Co-Mentor

Discovery Award (PI: Karmouty-Quintana) 1 Jan 16 – 31 Dec 19 3 years
UTHealth Pulmonary Center of Excellence
Cflm25 links alternative polyadenylation with pulmonary hypertension and right ventricle hypertrophy

G-45857 (PI: Karmouty-Quintana) 1 July 16 – 30 June 18 2 years
Genentech
CGN_IPF_ 2016 - BMPR2 in Acute and Chronic Lung Injury.
Total Award: \$100,000

RG-414673 (PI: Karmouty-Quintana) 1 Aug 16 – 31 July 18 2 years
American Lung Association Biomedical Research Grant
Alternative Polyadenylation in the pathogenesis of COPD
Total Award: \$50,000

14SDG18550039 (PI: Karmouty-Quintana) 1 Jan 14 – 31 Dec 17 4 years
American Heart Association
The role of hyaluronan in pulmonary hypertension secondary to lung fibrosis
Total Award: \$370,000

2013 (Karmouty-Quintana) 1 July 13 – 30 June 14 1 year
Entelligence MD Actelion Award
The role of hyaluronan in pulmonary hypertension associated with idiopathic pulmonary fibrosis (IPF)
Total Award: \$100,000

11POST7580121 (Karmouty-Quintana) 1 July 11 – 30 August 12
American Heart Association
Adenosinergic Mechanisms in Pulmonary Hypertension
The project focused on understanding the contribution of adenosine in the development of pulmonary hypertension secondary to chronic lung diseases.

Dossier no. 21657 (Karmouty-Quintana) 1 July 10 – 30 June 11
Fonds de la Recherche en Santé Québec
Role of Sphingolipids and Adenosinergic mechanisms in the regulation of pulmonary hypertension
The objective of this study was to investigate the contribution of sphingolipids and adenosine in the pathogenesis of pulmonary hypertension.

Dossier no. 15460 (Karmouty-Quintana) 1 June 08 – 31 May 10 2 years
Fonds de la Recherche en Santé Québec
Investigating the role of sphingolipid mechanisms in asthmatic airway remodeling
The goal of this study was to investigate the contribution of sphingolipids in the context of asthmatic airway remodeling.

2007-KAR01 (Karmouty-Quintana) 1 September 07 – 30 August 08 1 years
McGill University Health Centre (MUHC)
The role of FTY720 in airway remodeling
This project aimed to investigate the role of FTY720, a sphingosine-1-phosphate analogue in asthmatic airway remodeling.

PEER REVIEWED PUBLICATIONS (1-75)

Corresponding Author Publications marked with ***

As an Undergraduate Student:

1. Tigani B, Gremlich HU, Cannet C, Zurbrugg S, **Quintana HK**, Beckmann N. Near-infrared fluorescence imaging and histology confirm anomalous edematous signal distribution detected in the rat lung by MRI after allergen challenge. *Journal of magnetic resonance imaging : JMRI*. 2004; 20(6):967-74. PubMed [journal] PMID: 15558573

2. **Karmouty Quintana H**, Mazzoni L, Fozard JR. Effects of endotoxin and allergen alone and in combination on the sensitivity of the rat airways to adenosine. *Autonomic & autacoid pharmacology*. 2005; 25(4):167-70. PubMed [journal] PMID:16176448

As a PhD Student:

3. **Quintana HK**, Cannet C, Schaeublin E, Zurbruegg S, Sugar R, Mazzoni L, Page CP, Fozard JR, Beckmann N. Identification with MRI of the pleura as a major site of the acute inflammatory effects induced by ovalbumin and endotoxin challenge in the airways of the rat. *American journal of physiology. Lung cellular and molecular physiology*. 2006; 291(4):L651-7. PubMed [journal] PMID: 16728527

4. **Quintana HK**, Cannet C, Zurbruegg S, Ble FX, Fozard JR, Page CP, Beckmann N. Proton MRI as a noninvasive tool to assess elastase-induced lung damage in spontaneously breathing rats. *Magnetic resonance in medicine*. 2006; 56(6):1242-50. PubMed [journal] PMID: 17029230

5. Tigani B, Cannet C, **Karmouty-Quintana H**, Ble FX, Zurbruegg S, Schaeublin E, Fozard JR, Beckmann N. Lung inflammation and vascular remodeling after repeated allergen challenge detected noninvasively by MRI. *American journal of physiology. Lung cellular and molecular physiology*. 2007; 292(3):L644-53. PubMed [journal] PMID: 17085517

6. **Karmouty-Quintana H**, Cannet C, Sugar R, Fozard JR, Page CP, Beckmann N. Capsaicin-induced mucus secretion in rat airways assessed in vivo and non-invasively by magnetic resonance imaging. *British journal of pharmacology*. 2007; 150(8):1022-30. PubMed [journal] PMID: 17351665, PMCID: PMC2013907

7. Beckmann N, Kneuer R, Gremlich HU, **Karmouty-Quintana H**, Ble FX, Muller M. In vivo mouse imaging and spectroscopy in drug discovery. *NMR in biomedicine*. 2007; 20(3):154-85. PubMed [journal] PMID: 17451175

8. **Karmouty-Quintana H**, Cannet C, Zurbruegg S, Ble FX, Fozard JR, Page CP, Beckmann N. Bleomycin-induced lung injury assessed noninvasively and in spontaneously breathing rats by proton MRI. *Journal of magnetic resonance imaging : JMRI*. 2007; 26(4):941-9. PubMed [journal] PMID: 17896392

9. Beckmann N, Cannet C, **Karmouty-Quintana H**, Tigani B, Zurbruegg S, Ble FX, Cremillieux Y, Trifilieff A. Lung MRI for experimental drug research. *European journal of radiology*. 2007; 64(3):381-96. PubMed [journal] PMID: 17931813

10. **Karmouty-Quintana H**, Ble FX, Cannet C, Zurbruegg S, Fozard JR, Page CP, Beckmann N. In vivo pharmacological evaluation of compound 48/80-induced airways oedema by MRI. *British journal of pharmacology*. 2008; 154(5):1063-72. PubMed [journal] PMID: 18469845, PMCID: PMC2451044

11. Ble FX, Cannet C, Zurbruegg S, **Karmouty-Quintana H**, Bergmann R, Frossard N, Trifilieff A, Beckmann N. Allergen-induced lung inflammation in actively sensitized mice assessed with MR imaging. *Radiology*. 2008; 248(3):834-43. PubMed [journal] PMID: 18647843

12. Ble FX, Schmidt P, Cannet C, Kneuer R, **Karmouty-Quintana H**, Bergmann R, Coote K,

Danahay H, Zurbruegg S, Gremlich HU, Beckmann N. In vivo assessments of mucus dynamics in the rat lung using a Gd-Cy5.5-bilabeled contrast agent for magnetic resonance and optical imaging. *Magnetic resonance in medicine*. 2009; 62(5):1164-74. PubMed [journal] PMID: 19780168

As a postdoctoral Fellow:

13. Tuck SA, Ramos-Barbon D, Campbell H, McGovern T, **Karmouty-Quintana H**, Martin JG. Time course of airway remodelling after an acute chlorine gas exposure in mice. *Respiratory research*. 2008; 9:61. PubMed [journal] PMID: 18702818, PMCID:PMC2531104

14. **Karmouty-Quintana H**, Tamimi F, McGovern TK, Grover LM, Martin JG, Barralet JE. Sustained steroid release in pulmonary inflammation model. *Biomaterials*. 2010;31(23):6050-9. PubMed [journal] PMID: 20472285

15. McGovern TK, Powell WS, Day BJ, White CW, Govindaraju K, **Karmouty-Quintana H**, Lavoie N, Tan JJ, Martin JG. Dimethylthiourea protects against chlorine induced changes in airway function in a murine model of irritant induced asthma. *Respiratory research*. 2010; 11:138. PubMed [journal] PMID: 20925946, PMCID: PMC2965137

16. Pedroza M, Schneider DJ, **Karmouty-Quintana H**, Coote J, Shaw S, Corrigan R, Molina JG, Alcorn JL, Galas D, Gelinis R, Blackburn MR. Interleukin-6 contributes to inflammation and remodeling in a model of adenosine mediated lung injury. *PLoS one*. 2011; 6(7):e22667. PubMed [journal] PMID: 21799929, PMCID: PMC3143181

17. Zhou Y, Schneider DJ, Morschl E, Song L, Pedroza M, **Karmouty-Quintana H**, Le T, Sun CX, Blackburn MR. Distinct roles for the A2B adenosine receptor in acute and chronic stages of bleomycin-induced lung injury. *Journal of immunology (Baltimore, Md. : 1950)*. 2011; 186(2):1097-106. NIHMSID: NIHMS453384 PubMed [journal] PMID: 21149612, PMCID: PMC3607290

***18. **Karmouty-Quintana H**, Siddiqui S, Hassan M, Tsuchiya K, Risse PA, Xicota-Vila L, Marti-Solano M, Martin JG. Treatment with a sphingosine-1-phosphate analog inhibits airway remodeling following repeated allergen exposure. *American journal of physiology. Lung cellular and molecular physiology*. 2012; 302(8):L736-45. PubMed [journal] PMID: 22287614

19. **Karmouty-Quintana H**, Zhong H, Acero L, Weng T, Melicoff E, West JD, Hemnes A, Grenz A, Eltzschig HK, Blackwell TS, Xia Y, Johnston RA, Zeng D, Belardinelli L, Blackburn MR. The A2B adenosine receptor modulates pulmonary hypertension associated with interstitial lung disease. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*. 2012; 26(6):2546-57. PubMed [journal] PMID: 22415303, PMCID: PMC3650483

20. MacSharry J, O'Mahony C, Shalaby KH, Sheil B, **Karmouty-Quintana H**, Shanahan F, Martin JG. Immunomodulatory effects of feeding with *Bifidobacterium longum* on allergen-induced lung inflammation in the mouse. *Pulmonary pharmacology & therapeutics*. 2012; 25(4):325-34. PubMed [journal] PMID: 22705947

21. **Karmouty-Quintana H**, Xia Y, Blackburn MR. Adenosine signaling during acute and chronic disease states. *Journal of molecular medicine (Berlin, Germany)*. 2013; 91(2):173-81. NIHMSID: NIHMS438583 PubMed [journal] PMID: 23340998, PMCID:PMC3606047

22. Weng T, **Karmouty-Quintana H**, Garcia-Morales LJ, Molina JG, Pedroza M, Bunge RR, Bruckner BA, Loebe M, Seethamraju H, Blackburn MR. Hypoxia-induced deoxycytidine kinase expression contributes to apoptosis in chronic lung disease. *FASEB journal: official publication of the Federation of American Societies for Experimental Biology*. 2013; 27(5):2013-26. PubMed [journal] PMID: 23392349, PMCID: PMC4046114

23. **Karmouty-Quintana H**, Weng T, Garcia-Morales LJ, Chen NY, Pedroza M, Zhong H, Molina JG, Bunge R, Bruckner BA, Xia Y, Johnston RA, Loebe M, Zeng D, Seethamraju H, Belardinelli L, Blackburn MR. Adenosine A2B receptor and hyaluronan modulate pulmonary hypertension associated with chronic obstructive pulmonary disease. *American journal of respiratory cell and molecular biology*. 2013; 49(6):1038-47. PubMed [journal] PMID: 23855769

24. Roy MG, Livraghi-Butrico A, Fletcher AA, McElwee MM, Evans SE, Boerner RM, Alexander SN, Bellinghausen LK, Song AS, Petrova YM, Tuvim MJ, Adachi R, Romo I, Bordt AS, Bowden MG, Sisson JH, Woodruff PG, Thornton DJ, Rousseau K, De la Garza MM, Moghaddam SJ, **Karmouty-Quintana H**, Blackburn MR, Drouin SM, Davis CW, Terrell KA, Grubb BR, O'Neal WK, Flores SC, Cota-Gomez A, Lozupone CA, Donnelly JM, Watson AM, Hennessy CE, Keith RC, Yang IV, Barthel L, Henson PM, Janssen WJ, Schwartz DA, Boucher RC, Dickey BF, Evans CM. Muc5b is required for airway defence. *Nature*. 2014; 505(7483):412-6. NIHMSID: NIHMS571052 PubMed [journal] PMID: 24317696, PMCID: PMC4001806

25. Davies J, **Karmouty-Quintana H**, Le TT, Chen NY, Weng T, Luo F, Molina J, Moorthy B, Blackburn MR. Adenosine promotes vascular barrier function in hyperoxic lung injury. *Physiological reports*. 2014; 2(9). PubMed [journal] PMID: 25263205, PMCID: PMC4270235

26. Dahm PH, Richards JB, **Karmouty-Quintana H**, Cromar KR, Sur S, Price RE, Malik F, Spencer CY, Barreno RX, Hashmi SS, Blackburn MR, Haque IU, Johnston RA. Effect of antigen sensitization and challenge on oscillatory mechanics of the lung and pulmonary inflammation in obese carboxypeptidase E-deficient mice. *American journal of physiology. Regulatory, integrative and comparative physiology*. 2014; 307(6):R621-33. PubMed [journal] PMID: 25009214, PMCID: PMC4166760

As a NTR Assistant Professor:

27. Le TT, **Karmouty-Quintana H**, Melicoff E, Le TT, Weng T, Chen NY, Pedroza M, Zhou Y, Davies J, Philip K, Molina J, Luo F, George AT, Garcia-Morales LJ, Bunge RR, Bruckner BA, Loebe M, Seethamraju H, Agarwal SK, Blackburn MR. Blockade of IL-6 Trans signaling attenuates pulmonary fibrosis. *Journal of immunology (Baltimore, Md. : 1950)*. 2014; 193(7):3755-68. NIHMSID: NIHMS619142 PubMed [journal] PMID: 25172494, PMCID: PMC4169999

28. Weng T, Poth JM, **Karmouty-Quintana H**, Garcia-Morales LJ, Melicoff E, Luo F, Chen NY, Evans CM, Bunge RR, Bruckner BA, Loebe M, Volcik KA, Eltzschig HK, Blackburn MR. Hypoxia-induced deoxycytidine kinase contributes to epithelial proliferation in pulmonary fibrosis. *American journal of respiratory and critical care medicine*. 2014; 190(12):1402-12. PubMed [journal] PMID: 25358054, PMCID: PMC4299646

29. **Karmouty-Quintana H**, Philip K, Acero LF, Chen NY, Weng T, Molina JG, Luo F, Davies J, Le NB, Bunge I, Volcik KA, Le TT, Johnston RA, Xia Y, Eltzschig HK, Blackburn MR. Deletion of ADORA2B from myeloid cells dampens lung fibrosis and pulmonary hypertension. *FASEB journal: official publication of the Federation of American Societies for Experimental Biology*. 2015; 29(1):50-60. PubMed [journal] PMID: 25318478, PMCID: PMC4763976

30. Hoegl S, Brodsky KS, Blackburn MR, **Karmouty-Quintana H**, Zwissler B, Eltzschig HK. Alveolar Epithelial A2B Adenosine Receptors in Pulmonary Protection during Acute Lung Injury. *Journal of immunology (Baltimore, Md. : 1950)*. 2015; 195(4):1815-24. NIHMSID: NIHMS702270 PubMed [journal] PMID: 26188061, PMCID: PMC4530072
31. Pedroza M, Le TT, Lewis K, **Karmouty-Quintana H**, To S, George AT, Blackburn MR, Tweardy DJ, Agarwal SK. STAT-3 contributes to pulmonary fibrosis through epithelial injury and fibroblast-myofibroblast differentiation. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*. 2016; 30(1):129-40. PubMed [journal] PMID: 26324850, PMCID: PMC4684532
32. Luo F, Le NB, Mills T, Chen NY, **Karmouty-Quintana H**, Molina JG, Davies J, Philip K, Volcik KA, Liu H, Xia Y, Eltzschig HK, Blackburn MR. Extracellular adenosine levels are associated with the progression and exacerbation of pulmonary fibrosis. *FASEB journal: official publication of the Federation of American Societies for Experimental Biology*. 2016; 30(2):874-83. PubMed [journal] PMID: 26527068, PMCID: PMC4714555

As an Assistant Professor (Tenure Track):

- ***33. Garcia-Morales LJ, Chen NY, Weng T, Luo F, Davies J, Philip K, Volcik KA, Melicoff E, Amione-Guerra J, Bunge RR, Bruckner BA, Loebe M, Eltzschig HK, Pandit LM, Blackburn MR, **Karmouty-Quintana H**. Altered Hypoxic-Adenosine Axis and Metabolism in Group III Pulmonary Hypertension. *American journal of respiratory cell and molecular biology*. 2016; 54(4):574-83. PubMed [journal] PMID: 26414702, PMCID: PMC4821053
34. Wirsdorfer F, de Leve S, Cappuccini F, Eldh T, Meyer AV, Gau E, Thompson LF, Chen NY, **Karmouty-Quintana H**, Fischer U, Kasper M, Klein D, Ritchey JW, Blackburn MR, Westendorf AM, Stuschke M, Jendrossek V. Extracellular Adenosine Production by ecto-5'-Nucleotidase (CD73) Enhances Radiation-Induced Lung Fibrosis. *Cancer research*. 2016; 76(10):3045-56. NIHMSID: NIHMS778378 PubMed [journal] PMID: 26921334, PMCID: PMC4960984
35. Hu X, Adebisi MG, Luo J, Sun K, Le TT, Zhang Y, Wu H, Zhao S, **Karmouty-Quintana H**, Liu H, Huang A, Wen YE, Zaika OL, Mamenko M, Pochynyuk OM, Kellems RE, Eltzschig HK, Blackburn MR, Walters ET, Huang D, Hu H, Xia Y. Sustained Elevated Adenosine via ADORA2B Promotes Chronic Pain through Neuro-immune Interaction. *Cell reports*. 2016; 16(1):106-19. PubMed [journal] PMID: 27320922
- ***36. Chen NY, D Collum S, Luo F, Weng T, Le TT, M Hernandez A, Philip K, Molina JG, Garcia-Morales LJ, Cao Y, Ko TC, Amione-Guerra J, Al-Jabbari O, Bunge RR, Youker K, Bruckner BA, Hamid R, Davies J, Sinha N, **Karmouty-Quintana H**. Macrophage bone morphogenic protein receptor 2 depletion in idiopathic pulmonary fibrosis and Group III pulmonary hypertension. *American journal of physiology. Lung cellular and molecular physiology*. 2016; 311(2):L238-54. PubMed [journal] PMID: 27317687
37. Liu H, Zhang Y, Wu H, D'Alessandro A, Yegutkin GG, Song A, Sun K, Li J, Cheng NY, Huang A, Edward Wen Y, Weng TT, Luo F, Nemkov T, Sun H, Kellems RE, **Karmouty-Quintana H**, Hansen KC, Zhao B, Subudhi AW, Jameson-Van Houten S, Julian CG, Lovering AT, Eltzschig HK, Blackburn MR, Roach RC, Xia Y. Beneficial Role of Erythrocyte Adenosine A2B Receptor-Mediated AMP-Activated Protein Kinase Activation in High-Altitude Hypoxia. *Circulation*. 2016; 134(5):405-21. PubMed [journal] PMID: 27482003

- ***38. Collum SD, Amione-Guerra J, Cruz-Solbes AS, DiFrancesco A, Hernandez AM, Hanmandlu A, Youker K, Guha A, **Karmouty-Quintana H**. Pulmonary Hypertension Associated with Idiopathic Pulmonary Fibrosis: Current and Future Perspectives. *Canadian respiratory journal*. 2017; 2017:1430350. PubMed [journal] PMID: 28286407, PMCID: PMC5327768
39. Song A, Zhang Y, Han L, Yegutkin GG, Liu H, Sun K, D'Alessandro A, Li J, **Karmouty-Quintana H**, Iriyama T, Weng T, Zhao S, Wang W, Wu H, Nemkov T, Subudhi AW, Jameson-Van Houten S, Julian CG, Lovering AT, Hansen KC, Zhang H, Bogdanov M, Dowhan W, Jin J, Kellems RE, Eltzschig HK, Blackburn M, Roach RC, Xia Y. Erythrocytes retain hypoxic adenosine response for faster acclimatization upon re-ascent. *Nature communications*. 2017; 8:14108. PubMed [journal] PMID: 28169986, PMCID: PMC5309698
40. Muller T, Fay S, Vieira RP, **Karmouty-Quintana H**, Cicko S, Ayata K, Zissel G, Goldmann T, Lungarella G, Ferrari D, Di Virgilio F, Robaye B, Boeynaems JM, Blackburn MR, Idzko M. The purinergic receptor subtype P2Y2 mediates chemotaxis of neutrophils and fibroblasts in fibrotic lung disease. *Oncotarget*. 2017; PubMed [journal] PMID: 28415591
41. Mertens TCJ, **Karmouty-Quintana H**, Taube C, Hiemstra PS. Use of airway epithelial cell culture to unravel the pathogenesis and study treatment in obstructive airway diseases. *Pulmonary pharmacology & therapeutics*. 2017; PubMed [journal] PMID: 28502841
42. Segura-Ibarra V, Amione-Guerra J, Cruz-Solbes AS, Cara FE, Iruegas-Nunez DA, Wu S, Youker KA, Bhimaraj A, Torre-Amione G, Ferrari M, **Karmouty-Quintana H**, Guha A, Blanco E. Rapamycin nanoparticles localize in diseased lung vasculature and prevent pulmonary arterial hypertension. *International journal of pharmaceutics*. 2017; 524(1-2):257-267. PubMed [journal] PMID: 28359821
- ***43. Collum SD, Chen N-Y, Hernandez AM, Hanmandlu A, Sweeney H, Mertens TCJ, Weng T, Luo F, Molina JG, Davies J, Horan IP, Morrell NW, Amione-Guerra J, Al-Jabbari O, Youker KA, Sun W, Rajadas J, Bollycky PL, Bindu AH, Jyothula SS, Sinha N, Guha A, **Karmouty-Quintana H**, Inhibition of Hyaluronan Synthesis Attenuates Pulmonary Hypertension Associated with Lung Fibrosis 2017; *Br J Pharmacol*. 2017 Oct;174(19):3284-3301. doi: 10.1111/bph.13947. Epub 2017 Aug 17. PubMed PMID:28688167.
44. Philip K, Mills TW, Davies J, Chen NY, **Karmouty-Quintana H**, Luo F, Molina JG, Amione-Guerra J, Sinha N, Guha A, Eltzschig HK, Blackburn MR. HIF1A up-regulates the ADORA2B receptor on alternatively activated macrophages and contributes to pulmonary fibrosis. *FASEB J*. 2017 Nov;31(11):4745-4758. doi: 10.1096/fj.201700219R. Epub 2017 Jul 12. PMID: 28701304
45. Müller T, Fay S, Vieira RP, **Karmouty-Quintana H**, Cicko S, Ayata CK, Zissel G, Goldmann T, Lungarella G, Ferrari D, Di Virgilio F, Robaye B, Boeynaems JM, Lazarowski ER, Blackburn MR, Idzko M. P2Y6 Receptor Activation Promotes Inflammation and Tissue Remodeling in Pulmonary Fibrosis. *Front Immunol*. 2017 Aug 22;8:1028. doi: 10.3389/fimmu.2017.01028. eCollection 2017.
46. Li H, **Karmouty-Quintana H**, Chen NY, Mills T, Molina J, Blackburn MR, Davies J Loss of CD73-mediated extracellular adenosine production exacerbates inflammation and abnormal alveolar development in newborn mice exposed to prolonged hyperoxia. *Pediatr Res*. 2017 Aug 23. doi: 10.1038/pr.2017.176. [Epub ahead of print] PMID: 28832580

47. Xiang Y, Ye Y, Lou Y, Yang Y, Cai C, Zhang Z, Mills T, Chen NY, Kim Y, Muge Ozguc F, Diao L, **Karmouty-Quintana H**, Xia Y, Kellems RE, Chen Z, Blackburn MR, Yoo SH, Shyu AB, Mills GB, Han L. Comprehensive Characterization of Alternative Polyadenylation in Human Cancer. *J Natl Cancer Inst.* 2018 Apr 1;110(4):379-389. doi: 10.1093/jnci/djx223.
48. Kahn N, Tomos I, Andrianopoulos V, Arikan H, van der Does A, Almendros I, Bonvivi S, Morgan A, Nenna R, Magouliotis D, Rutter M, De Soomer K, Nyberg A, Lundell S, Leceuvre K, Singanayagam A, Bostantzoglou C, **Karmouty-Quintana H**, De Brandt J. Early Career Members at the ERS International Congress 2017: highlights from the Assemblies. *Breathe (Sheff).* 2017 Dec;13(4):e121-e129. doi: 10.1183/20734735.017617
49. Yu P, Liu K, Gao X, **Karmouty-Quintana H**, Bailey JM, Cao Y, Ko TC. Transforming Growth Factor- β and Bone Morphogenetic Protein 2 Regulation of MicroRNA-200 Family in Chronic Pancreatitis. *Pancreas.* 2018 Feb;47(2):252-256. doi: 10.1097/MPA.0000000000000980.
- ***50. Mertens TCJ, Hanmandlu A, Tu Ly, Phan P, Collum SD, Chen N-Y, Weng T, Davies J, Liu C, Eltzschig HK, Jyothula SSK, Rajagopal K, Xia Y, Guha A, Bruckner BA, Blackburn MR, Guignabert C, **Karmouty-Quintana H**. Switching-Off Adora2b in Vascular Smooth Muscle Cells Halts the Development of Pulmonary Hypertension. *Front Physiol.* 2018 Jun 1;9:555. doi: 10.3389/fphys.2018.00555
51. Segura-Ibarra V, Wu S, Hassan N, Moran-Guerrero JA, Ferrari M, Guha A, **Karmouty-Quintana H**, Blanco E. Nanotherapeutics for Treatment of Pulmonary Arterial Hypertension. *Front Physiol.* 2018 Jul 13;9:890. doi: 10.3389/fphys.2018.0089
52. Karuppagounder V, Bajpai A, Meng S, Arumugam S, Sreedhar R, Giridharan VV, Guha A, Bhimaraj A, Youker KA, Palaniyandi SS, **Karmouty-Quintana H**, Kamal F, Spiller KL, Watanabe K, Thandavarayan RA. Small molecule disruption of G protein $\beta\gamma$ subunit signaling reprograms human macrophage phenotype and prevents autoimmune myocarditis in rats. *PLoS One.* 2018 Jul 19;13(7):e0200697. doi: 10.1371/journal.pone.0200697.
- ***53. Headley L, Bi W, Wilson C, Collum SD, Chavez M, Darwiche T, Mertens TCJ, Hernandez AM, Siddiqui SR, Rosenbaum S, Johnston RA, **Karmouty-Quintana H**. Low dose administration of bleomycin leads to early alterations in lung mechanics. *Exp Physiol.* 2018 Dec;103(12):1692-1703. doi: 10.1113/EP087322. Epub 2018 Oct 17.
54. **Karmouty-Quintana H**, Molina JG, Philip K, Bellocchi C, Gudenkauf B, Wu M, Chen NY, Collum SD, Ko J, Agarwal SK, Assassi S, Zhong H, Blackburn MR, Weng T. The Anti-fibrotic Effect of Adenosine A2B Receptor Antagonism in a Mouse Model of Dermal Fibrosis. *Arthritis Rheumatol.* 2018 Oct;70(10):1673-1684. doi: 10.1002/art.40554. Epub 2018 Aug 6.
55. Aherne CM, Collins CB, Rapp CR, Olli KE, Perrenoud L, Jedlicka P, Bowser JL, Mills TW, **Karmouty-Quintana H**, Blackburn MR, Eltzschig HK. Coordination of ENT2-dependent adenosine transport and signaling dampens mucosal inflammation *JCI Insight.* 2018 Oct 18;3(20). pii: 121521. doi: 10.1172/jci.insight.121521. [Epub ahead of print]

***56. **Karmouty-Quintana H**, Guignabert C, Kwapiszewska G, Ormiston ML Editorial: Molecular Mechanisms in Pulmonary Hypertension and Right Ventricle Dysfunction. *Front Physiol.* 2018 Dec 10;9:1777. doi: 10.3389/fphys.2018.01777. eCollection 2018.

57. Kitagawa MG, Reynolds JO, Durgan D, Rodney G, **Karmouty-Quintana H**, Bryan R, Pandit LM. Twik-2/- mouse demonstrates pulmonary vascular heterogeneity in intracellular pathways for vasocontractility. *Physiol Rep.* 2019 Jan;7(1):e13950. doi: 10.14814/phy2.13950.

***58. Darwiche T, Collum SD, Bi W, Reynolds JO, Wilson C, Wareing N, Hernandez AM, Mertens TCJ, Zhou Z, Pandit LM, **Karmouty-Quintana H**. Alterations in cardiovascular function in an experimental model of lung fibrosis and pulmonary hypertension. *Exp Physiol.* 2019 Apr;104(4):568-579. doi: 10.1113/EP087321. Epub 2019 Feb 10.

59. Weng T, Ko J, Masamha CP, Xia Z, Xiang Y, Chen NY, Molina JG, Collum S, Mertens TC, Luo F, Philip K, Davies J, Huang J, Wilson C, Thandavarayan RA, Bruckner BA, Jyothula SS, Volcik KA, Li L, Han L, Li W, Assassi S, **Karmouty-Quintana H**, Wagner EJ, Blackburn MR. Cleavage factor 25 deregulation contributes to pulmonary fibrosis through alternative polyadenylation. *J Clin Invest.* 2019 Feb 28;130. pii: 122106. doi: 10.1172/JCI122106.

***60. Collum SD, Molina JG, Hanmandlu A, Bi W, Pedroza M, Mertens TCJ, Wareing N, Wei W, Wilson C, Sun W, Rajadas J, Bollyky PL, Philip KM, Ren D, Thandavarayan RA, Bruckner BA, Xia Y, Blackburn MR, **Karmouty-Quintana H**. Adenosine and hyaluronan modulate lung fibrosis and pulmonary hypertension in combined pulmonary fibrosis and emphysema (CPFE). *Dis Model Mech.* 2019 May 15;12(5). pii: dmm038711. doi: 10.1242/dmm.038711.

61. Ko J, Mills T, Huang J, Chen NY, Mertens TCJ, Collum SD, Lee G, Xiang Y, Han L, Zhou Y, Lee CG, Elias JA, Jyothula SSK, Rajagopal K, **Karmouty-Quintana H**, Blackburn MR. Transforming growth factor β 1 alters the 3'-UTR of mRNA to promote lung fibrosis. *J Biol Chem.* 2019 Oct 25;294(43):15781-15794. doi: 10.1074/jbc.RA119.009148. Epub 2019 Sep 5.

62. Mst1/2 kinases restrain transformation in a novel transgenic model of Ras driven non-small cell lung cancer. Singh K, Pruski MA, Polireddy K, Jones NC, Chen Q, Yao J, Dar WA, McAllister F, Ju C, Eltzschig HK, Younes M, Moran C, **Karmouty-Quintana H**, Ying H, Bailey JM. *Oncogene.* 2020 Jan;39(5):1152-1164. doi: 10.1038/s41388-019-1031-z. Epub 2019 Sep 30.

***63. Crystal Deposits in Macrophages and Distal Lung Remodeling: A Tale of Aging in SFTPC-deficient Mice. Weng T, **Karmouty-Quintana H**. *Am J Respir Cell Mol Biol.* 2020 Apr;62(4):405-406. doi: 10.1165/rcmb.2020-0018ED.

***64. Idiopathic Pulmonary Fibrosis (IPF) and pulmonary hypertension: Heracles meets the Hydra. Rajagopal K, Bryant AJ, Sahay S, Wareing N, Zhou Y, Pandit LM, **Karmouty-Quintana H**. *Br J Pharmacol.* 2021 Jan;178(1):172-186. doi: 10.1111/bph.15036. Epub 2020 Apr 7.

65. Regenerative Metaplastic Clones in COPD Lung Drive Inflammation and Fibrosis. Rao W, Wang S, Duleba M, Niroula S, Goller K, Xie J, Mahalingam R, Neupane R, Liew AA, Vincent M, Okuda K, O'Neal WK, Boucher RC, Dickey BF, Wechsler ME, Ibrahim O, Engelhardt JF, Mertens TCJ, Wang W, Jyothula SSK, Crum CP, **Karmouty-Quintana H**, Parekh KR, Metersky ML,

McKeon FD, Xian W. Cell. 2020 May 14;181(4):848-864.e18. doi: 10.1016/j.cell.2020.03.047. Epub 2020 Apr 15. PMID: 32298651

***66. The case for Chronotherapy in COVID-19 induced Acute Respiratory Distress Syndrome (ARDS). Tamimi F, Abusamak M, Akkanti B, Chen Z, Yoo SH, **Karmouty-Quintana H**. Br J Pharmacol. 2020 Nov;177(21):4845-4850. doi: 10.1111/bph.15140. Epub 2020 Jul 3 PMID: 32442317

67. Understanding the age divide in COVID-19: Why are children overwhelmingly spared? Lingappan K, **Karmouty-Quintana H**, Davies J, Akkanti B, Harting MT. Am J Physiol Lung Cell Mol Physiol. 2020 Jul 1;319(1):L39-L44. doi: 10.1152/ajplung.00183.2020. Epub 2020 Jun 3.

68. Single-cell RNA sequencing analysis of SARS-CoV-2 entry receptors in human organoids Mahalingam R, Dharmalingam P, Santhanam A, Kotla S, Davuluri G, **Karmouty-Quintana H**, Ashrith G, Thandavarayan RA. J Cell Physiol. 2021 Apr;236(4):2950-2958. doi: 10.1002/jcp.30054. Epub 2020 Sep 17.

***69. Emerging Mechanisms of Pulmonary Vasoconstriction in SARS-CoV-2-Induced Acute Respiratory Distress Syndrome (ARDS) and Potential Therapeutic Targets. **Karmouty-Quintana H**, Thandavarayan RA, Keller SP, Sahay S, Pandit LM, Akkanti B. Int J Mol Sci. 2020 Oct 29;21(21):8081. doi: 10.3390/ijms21218081.

***70. Mechanisms of Pulmonary Hypertension in Acute Respiratory Distress Syndrome (ARDS). Revercomb L, Hanmandlu A, Wareing N, Akkanti B, **Karmouty-Quintana H**. Front Mol Biosci. 2021 Jan 18;7:624093. doi: 10.3389/fmolb.2020.624093. eCollection 2020.

71. Versatile workflow for cell type-resolved transcriptional and epigenetic profiles from cryopreserved human lung. Llamazares-Prada M, Espinet E, Mijošek V, Schwartz U, Lutsik P, Tamas R, Richter M, Behrendt A, Pohl ST, Benz NP, Muley T, Warth A, Heußel CP, Winter H, Landry JJM, Herth FJ, Mertens TC, **Karmouty-Quintana H**, Koch I, Benes V, Korbel JO, Waszak SM, Trumpp A, Wyatt DM, Stahl HF, Plass C, Jurkowska RZ. JCI Insight. 2021 Mar 22;6(6):e140443. doi: 10.1172/jci.insight.140443.

72. SARS-CoV-2 Mediated Hyperferritinemia and Cardiac Arrest: Preliminary Insights. VasanthiDharmalingam P, Karuppagounder V, Watanabe K, **Karmouty-Quintana H**, Palaniyandi SS, Guha A, Thandavarayan RA. Drug Discov Today. 2021 Jan 23:S1359-6446(21)00041-6. doi: 10.1016/j.drudis.2021.01.014. Online ahead of print.

***73. Enhancing Extracellular Adenosine Levels Restores Barrier Function in Acute Lung Injury Through Expression of Focal Adhesion Proteins. Wang W, Chen NY, Ren D, Davies J, Philip K, Eltzschig HK, Blackburn MR, Akkanti B, **Karmouty-Quintana H**, Weng T. Front Mol Biosci. 2021 Mar 10;8:636678. doi: 10.3389/fmolb.2021.636678. eCollection 2021.

74. Emerging roles of alternative cleavage and polyadenylation (APA) in human disease. Dharmalingam P, Mahalingam R, Yalamanchili HK, Weng T, **Karmouty-Quintana H**, Guha A, Thandavarayan RA. J Cell Physiol. 2021 Aug 11. doi: 10.1002/jcp.30549. Online ahead of print.

***74. Transcriptomic and Epigenetic Profiling of Fibroblasts in Idiopathic Pulmonary Fibrosis (IPF). Hanmandlu A, Zhu L, Mertens TC, Collum S, Bi W, Xiong F, Wang R, Amirthalingam RT, Ren D, Han L, Jyothula SS, Li W, Zheng WJ, Karmouty-Quintana H. *Am J Respir Cell Mol Biol*. 2021 Aug 9. doi: 10.1165/rcmb.2020-0437OC. Online ahead of print.

Book Chapters

1. Beckmann N, Crémillieux Y, Tigani B, **Karmouty Quintana H**, Blé F-X, and Fozard JR. Lung MRI in Small Rodents as a Tool for the Evaluation of Drugs in Models of Airways Diseases In: "In Vivo MR Techniques in Drug Discovery and Development" (Editor: N. Beckmann). Francis & Taylor, Boca Raton, New York, USA, 2006; pp 351-372
2. **Karmouty-Quintana, H.**, Guignabert, C., Kwapiszewska, G., Ormiston, M. L., eds. (2019). *Molecular Mechanisms in Pulmonary Hypertension and Right Ventricle Dysfunction*. Lausanne: Frontiers Media. doi: 10.3389/978-2-88945-773-1 (e-book)

INVITED SEMINARS

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| 2007 | Meakins-Christie Laboratories, McGill University, Canada |
| 2007 | Respiratory Health Network of Quebec, Montreal, Canada. |
| 2008 | Division of Pharmaceutical Sciences, King's College London, UK |
| 2009 | Department of Pulmonary Medicine, MD Anderson Cancer Center, USA |
| 2009 | Department of Biochemistry and Molecular Biology, University of Texas – Medical School, USA |
| 2009 | Respiratory Health Network of Quebec, Montreal, Canada. |
| 2011 | IMIM-Hospital del Mar, Barcelona, Spain |
| 2011 | Respiratory Center for Respiratory Research, University College London, UK |
| 2011 | Sackler Institute for Pulmonary Pharmacology, King's College London, UK |
| 2011 | INSERM 999 Pulmonary Hypertension Unit, Centre Chirurgical Marie Lannelongue, Paris, France |
| 2013 | Department of Biochemistry and Molecular Biology. UT Health Medical School, Houston, Texas, US |
| 2013 | Department of Rheumatology. UT Health Medical School, Houston, Texas, US |
| 2013 | UT Physicians, Houston, Texas, US |
| 2014 | GSBS Topic Series, UT Health Medical School, Houston, Texas, US |
| 2014 | Department of Pulmonology, UT Health Medical School, Houston, Texas, US |

- 2014 Department of Pediatric Transplantation, Texas Children's Hospital, Houston, Texas, US.
- 2015 "COPD and Epigenetics" BiomedX, May 26th, 2015 Heidelberg, Germany
- 2017 "Adenosinergic mechanisms in the skin and the lung" at Scleroderma Unit, Referral Center for Systemic Autoimmune Diseases, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico di Milano, Milano, Italy. September 13th, 2017
- 2017 "GAGs in Group I and Group III Pulmonary Hypertension" James T. Willerson Seminar at the Texas Heart Institute, Houston, Texas. September 28th, 2017
- 2017 "Disease Mechanisms in Group III Pulmonary Hypertension" Pulmonary Grand Rounds at University of Birmingham at Alabama, Birmingham Alabama. December 7th, 2017
- 2017 "Hyaluronan in Pulmonary Hypertension" Division of Pulmonary, Allergy, Critical Care and Sleep Medicine Seminar Series at The Department of Medicine, Emory University, Atlanta, Georgia. December 13th, 2017
- 2018 "Adenosine and Hyaluronan in Pulmonary Hypertension." Pulmonary Vascular Research Institute 12th Annual Conference, Singapore. January 21st, 2018
- 2018 "Altered Glycosaminoglycans and Alternative Polyadenylation in Pulmonary Hypertension." Department of Pulmonology, Leiden University Medical Center, Leiden, The Netherlands. May 8th, 2018
- 2018 "Hyaluronic Acid in Pulmonary Hypertension" Meakins-Christie Laboratories, Division of Experimental Medicine, McGill University, Montreal, QC, Canada. May 14th, 2018
- 2018 "*De novo* developmental gene expression in Idiopathic Pulmonary Fibrosis" Translational Lung Research Center Heidelberg, The German Center for Lung Research (DZL), Heidelberg, Germany. September 25th, 2018
- 2018 "Compartment-specific alteration in Extracellular Matrix in the Pulmonary Vasculature in Pulmonary Hypertension" American Heart Association 2018 Scientific Sessions Meeting, Chicago, Illinois. November 11th 2018
- 2018 "Hymecromone Inhibits Fibrotic Deposition and Pulmonary Hypertension in an Experimental Model of Combined Pulmonary Fibrosis and Emphysema" American Heart Association 2018 Scientific Sessions Meeting, Chicago, Illinois. November 11th 2018 - Late-Breaking Basic Science Oral Abstracts I. November 12th 2018
- 2019 "3'UTR shortening and developmental gene expression in pulmonary hypertension and lung fibrosis" CardioPulmonary Vascular Biology (CPVB) COBRE research seminar series. Brown University, Providence, RI. February 22nd 2019

- 2019 “NUDT21 depletion links Alternative Polyadenylation with Pulmonary Hypertension.” Research Conference, Division of Pulmonology, University of Florida, Gainesville, FL. March 20th 2019
- 2019 “Six1 Expression in the Alveolar Epithelium Promotes Lung Fibrosis” TMC Lung Biology Seminar Series, Houston, TX. May 13th 2019
- 2019 “Hyaluronan Synthase 3-Expressing Macrophages Drive Lung Fibrosis and Pulmonary Hypertension in an Experimental Model of Combined Pulmonary Fibrosis and Emphysema (CPFE)” GRC Lung Development, Injury and Repair Conference, Bates College, Lewiston, ME. Aug 7th 2019 – Selected from submitted abstracts –
- 2019 “Recomendaciones de un médico experto para evitar y tratar enfermedades pulmonares” Noticias 45 Univision, Televised Interview, Houston, TX, August 17th 2019
- 2019 “Can we Correlate Biochemical Measurements & Pulmonary Function?” 3rd Annual IPF Summit, San Diego, CA. August 28th 2019
- 2019 “Novel developmental gene targets for Idiopathic Pulmonary Fibrosis” Ionis Pharmaceuticals, Carlsbad, CA. August 29th 2019
- 2019 “Adenosine at the Cross-Roads of Lung Fibrosis and Pulmonary Hypertension”. 1st European Purine Meeting, Santiago de Compostela, Spain. September 4th 2019
- 2020 “Switching-off Six1 in the alveolar epithelium prevents and halts the development of lung fibrosis” Invited lecture at the MEDVAMC/CTRID Research Seminar Series. Baylor College of Medicine / Veterans Affairs Medical Center, Houston, TX, January 23rd 2020
- 2020 “Sineoculis homeobox homolog 1 (Six1) is elevated in IPF and promotes lung fibrosis” Invited lecture at the Division of Pulmonary, Critical Care and Sleep Medicine, The Ohio State University, Columbus, OH, March 6th 2020
- 2020 “3’UTR Landscape Remodelling in the Pathogenesis of Pulmonary Hypertension”. Invited lecture at the Department of Nanomedicine at the Houston Methodist Research Institute, Houston, TX. April 22nd 2020. ** postponed due to COVID-19**
- 2020 “TBD” Invited lecture at Department of Biomedical Sciences, Cooper Medical School of Rowan University, Camden, NJ. May 19th 2020. ** Cancelled due to COVID-19**
- 2020 “3’UTR Landscape Remodeling in the Pathogenesis of Pulmonary Hypertension” Invited lecture at Department of Cell Biology, Microbiology and Molecular Biology (CMMB), University of South Florida, Tampa, FL, October 16th 2020

- 2020 “Addressing Pre-Clinical Drug Development Challenges in Skin & Lung fibrosis” Annual Antifibrotic Drug Development Summit (AFDD). Digital, November 16- 18, 2020
- 2021 “New Insights into Right Heart Failure: Role of Alternative mRNA Splicing” At the cutting edge of Cardiovascular Sciences. Digital, April 12, 2021 https://www.youtube.com/watch?v=FbHa4BP_-vw
- 2021 “Hyaluronan in Pulmonary Hypertension” Center for Metabolic and Degenerative Diseases, Institute of Molecular Medicine (IMM), UTHealth May 26, 2021
- 2021 “Mechanisms of Hyaluronan in Pulmonary Hypertension” Halo Biosciences, Stanford, August 4, 2021