

Vishal D. Patel



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Place of Birth: INDIA
Citizenship: USA

Education

Year	Degree (Honors)	Field of Study (Thesis advisor for PhDs)	Institution
8/1994-12/2000	M.D.	Medicine	P S Medical College, Gujarat, India

Postdoctoral Training

Year(s)	Titles	Specialty/Discipline (Lab PI for postdoc research)	Institution
8/2001-8/2002	Intern	Internship	Mt. Sinai Hospital/ Chicago Medical School, Chicago, IL
8/2002-8/2004	Resident	Residency	Northwestern University Medical School, Evanston, IL
8/2004-7/2006	Fellow	Clinical Fellowship	University of Texas Southwestern Medical Center, Dallas, TX
12/2000-8/2001	Fellow	Research Fellowship	Northwestern University Medical School, Chicago, IL
8/2005-7/2008	Fellow	Research Fellowship	University of Texas Southwestern Medical Center, Dallas, TX

Current Licensure and Certification

Licensure: Texas

Board and Other Certification

American Board of Internal Medicine: 8/2004-8/2014

American Board of Internal Medicine (Nephrology): 11/2007-11/2017, recertified in 2017-2027

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
2000	Gold Medal 'Dr. Piyush R. Patel Award' in Internal Medicine	S. P. University, INDIA
2000	Gold Medal 'Bhai Kaka Award' for 1 st rank in Med School	S.P. University, INDIA
2005-2008	T32 fellow in Nephrology	UT Southwestern, Dallas, TX
2005-2008	Chief Fellow, Division of Nephrology	UT Southwestern, Dallas, TX
2007	Young Investigator Travel Award	Southern Society for Clinical Investigation
2009-2010	Pilot and Feasibility Grant	UT Southwestern O'Brien Center
2009-2014	Career Development Award	NIH/NIDDK
2012, 2013, 2014	Rising Star in Nephrology, State of Texas	Texas Monthly Magazine
2014	PKD Foundation Grant	PKD foundation
2019	Vice-Chair, Scientific Advisory Committee, PKD Foundation	

Faculty Academic Appointments

Year(s)	Academic Title	Department	Academic Institution
7/2008-9/2009	Assistant Instructor	Internal Medicine/ Nephrology	UT Southwestern Medical Center
10/2009-2010	Assistant Professor	Internal Medicine/Nephrology	UT Southwestern Medical Center
10/2010-8/2018	Assistant Professor (Tenure-accruing)	Internal Medicine/Nephrology	UT Southwestern Medical Center
9/2018-	Associate Professor (Tenured)	Internal Medicine/ Nephrology	UT Southwestern Medical Center

Appointments at Hospitals/Affiliated Institutions

Year(s)	Position Title	Department/Division	Institution
<u>Current</u>			
Year(s)	Position Title	Department/Division	Institution
2010-2018 2018-current	Assistant Professor Associate Professor	Internal Medicine/Nephrology	Parkland Hospital and Clinics, Dallas, TX
2010- 2018 2018-current	Assistant Professor Associate Professor	Internal Medicine/Nephrology	UT Southwestern Medical Center-St.Paul Hospital and Zale Lipshy Hospital, Dallas

Other Professional Positions [*Industry, foundation, private practice*]

Year(s)	Position Title	Institution
2018-19	Member, Scientific Advisory Committee	PKD Foundation, Kansas City, KS
2018-2022	Scientific Advisor	Regulus Therapeutics, San Diego, CA
2019-current	Vice Chair, Scientific Advisory Committee	PKD Foundation, Kansas City, KS
2020	Member, PKD Advisory Board	Otsuka Pharmaceutical, Tokyo, Japan
2021-current	Scientific Consultant	Translate Bio, Cambridge, MA
2021-current	Scientific Consultant	Maze Therapeutics, San Francisco, CA
2022-current	Scientific Consultant	Regulus Therapeutics, San Diego, CA

Committee Service (*Member, unless noted otherwise*)

Year(s)	Name of Committee	Institution/Organization
<u>UTSW</u>		
2010-14	Internal Medicine Resident Interviews	UT Southwestern, Dept. of Medicine
2010-16	Nephrology Fellow Resident Interviews	UT Southwestern, Div. of Nephrology
2012	UTSW Post-doctoral recruitment	UT Southwestern Graduate School
2012	Judge, Graduate Student Organization Poster Session	UT Southwestern Graduate School
2016	Judge, Graduate Student Organization Poster Session	UT Southwestern Graduate School
2017-current	PSTP Internal Medicine Interviews	UT Southwestern Medical School
2021	Tenure Track Faculty Compensation	UT Southwestern, Dept. of Medicine
<u>Hospital</u>		
<u>State/Regional</u>		
<u>National/International</u>		
2014	ASN strategic planning (Listening panel)	The American Society of Nephrology
2016	ASN abstract reviewer (cystic kidney diseases)	The American Society of Nephrology
2016	Data safety and monitoring board, HERA trial evaluating anti-miR-21 in Alport's syndrome	Regulus Therapeutics, San Diego, CA
2018	Member, External Advisory Committee	University of Alabama Birmingham, NIH (P30) PKD center

2018	Member, External Advisory Committee	University of Maryland, Baltimore, NIH (P30) PKD Center
2018	Moderator, Educational Session on ADPKD	American Society of Nephrology Annual Meeting, San Diego, CA
2019	ASN abstract reviewer (cystic kidney diseases)	The American Society of Nephrology
2019	Moderator, Genetics of Renal tubules	American Society of Nephrology Annual Meeting, Washington DC
2019	Career Development Panel	Basic Research Forum for Emerging Kidney Physiologist, Washington DC
2020	Chair, ASN abstract selection (Cystic Kidney Diseases)	The American Society of Nephrology
2020	Moderator, oral abstract session (Kidneyomics: From Cysts to Populations)	American Society of Nephrology Annual Meeting, Digital Meeting
2020-2022	Lillian Jean Kaplan Prize Advisory Committee	International Society of Nephrology (ISN)
2021	Course Chair “The Breakthroughs and Challenges of a New Era in ADPKD Care”	Kidney Week, American Society of Nephrology Annual Meeting
2021	Chair and Moderator: NIH/NIDDK Polycystic Kidney Disease Research Resource Consortium-First Annual Symposium	NIH/NIDDK, October 27-28, 2021

Professional Societies

Dates	Society Name, member
2005-Present	American Society of Nephrology

Grant Review Activities

Year(s)	Name of Review Committee	Organization
2013	Reviewer	The Nephrotic Syndrome Study Network (NEPTUNE)
2013	Reviewer	Austrian Science Fund (FWF), Austria, Europe
2013	Panel member	Congressionally directed Medical research program (CDMRP), Department of Defense, USA
2014	Reviewer	The Health Research Board (HRB), Ireland, Europe
2014	Panel member, Pathobiology of Kidney Diseases (PBKD) study section.	NIDDK-NIH

2014	Reviewer	CTSA, UT Southwestern Medical Center
2014	Panel member, Pre-Application	CDMRP, Department of Defense, USA
2014	Chair, Discovery Award	CDMRP, Department of Defense, USA
2014	Panel member, Clinical Trials	CDMRP, Department of Defense, USA
2015	Reviewer	Children's Hospital Research Institute of Manitoba, Winnipeg, Canada.
2015	Panel member	PKD foundation, USA
2015	Panel member, PRMRP - DIS-CKD	CDMRP, Department of Defense, USA
2015	Reviewer, KMBD study section	NIDDK-NIH
2016-current	Panel Member	PKD Foundation, Kansas City, USA
2016	Reviewer	CTSA, UT Southwestern Medical Center
2016	Reviewer	The Kidney Institute Pilot research grants, University of Kansas, Kansas City, Kansas
2016	Panel member, Discovery Award	CDMRP, Department of Defense, USA
2017	Reviewer	Agence Nationale de la Recherche, France
2017	Reviewer	DiaComp, NIH/NIDDK
2017	Reviewer	Swiss National Science Foundation (SNSF), Switzerland
2017-current	Reviewer	PKD Foundation
2019	Panel member,	CDMRP, Department of Defense, USA
2019	Reviewer, ZRG1-EMNR-B (50)R Study Section	NIDDK/NIH
2019	Reviewer	CDMRP, Department of Defense, USA
2020	Reviewer, KMBD study section	NIDDK/NIH
2020	Panel member, Pre-Application	CDMRP, Department of Defense, USA
2020	Reviewer, NIDDK-PKD U54-U24 Review Meeting	NIDDK/NIH
2020	Reviewer	CDMRP, Department of Defense, USA
2021	Reviewer, Special emphasis panel on SARS-COV-2/COVID-19 and organs of interest to NIDDK.	NIDDK/NIH
2021	K-12 Career development award (Junior faculty)	Northwestern University Clinical and Translational Sciences Institute (NUCATS)
2021	PRMRP DIS-UD peer review panel	CDMRP, Department of Defense, USA
2021	Reviewer	Jared Grantham Kidney Institute pilot grants, KUMC, Kansas City.

2021	PKD-RRC Pilot and Feasibility (P&F) program	NIDDK
2022	Reviewer, Special Emphasis Panel	NIH/NIDDK
2022	Chair, Clinical Trial – Urological Disease	CDMRP, Department of Defense, USA

Editorial Activities

Year(s)	Journal Name
<u>Editor/Associate Editor</u>	
2021	Guest Editor, Frontiers of Physiology (special issue on non-coding RNAs)
2022	Guest Editor, Scientific Reports (special collection on RNA Therapeutics)
<u>Editorial Board</u>	
2019-Current	Scientific Reports
<u>Ad Hoc Reviewer (Select Journals)</u>	
2009-current (Selected journals)	American Journal of Physiology-Renal Cell Metabolism eLife Journal of the American Society of Nephrology Journal of Clinical Investigation (JCI) Nature Communications New England Journal of Medicine Science Translation Medicine Kidney International FASEB Journal

Grant Support

Present	
	Grantor: National Institute of Health (R01-DK102572)
	Title of Project: The impact of RNA chemical modifications on PKD progression
	Role: Principal Investigator
	Annual amount and date (direct costs only): \$265,000/ yr 05/11/15-2/28/2025
	Total amount of award (if multi-year) and dates (direct costs only): \$2,185,000
	Grantor: Regulus Therapeutics (Sponsored Research Agreement)
	Title of Project: Exploratory studies in Autosomal Dominant Polycystic Kidney Disease
	Role (Principal Investigator, Co-Investigator): Principal Investigator
	Annual amount and date (direct costs only): 08/1/15- 12/31/2023
	Total amount of award (if multi-year) and dates (direct costs only): \$ 900,000

	Grantor: Translate Bio (Sponsored Research Agreement)
	Title of Project: PKD1 and PKD2 mRNA therapy
	Role (Principal Investigator, Co-Investigator): Principal Investigator
	Annual amount and date (direct costs only): \$196,000 10/1/2021-4/31/2023
	Total amount of award (if multi-year) and dates (direct costs only): \$392,000
	Grantor: National Institute of Health (K08 – PI: R. Lakhia, M.D.)
	Title of Project: The role of PPARA in Autosomal Dominant Polycystic Kidney Disease
	Role: Mentor
	Annual amount and date (direct costs only): \$120,000/ yr 07/31/2018-4/31/2023
	Total amount of award (if multi-year) and dates (direct costs only): \$ 600,000
	Grantor: Myonid Therapeutics (Sponsored Research Agreement)
	Title of Project: ERRs in ADPKD
	Role (Principal Investigator, Co-Investigator): Principal Investigator
	Annual amount and date (direct costs only): \$125,000 4/1/2022-4/31/2023
	Total amount of award (if multi-year) and dates (direct costs only): \$125,000
	Grantor: Vifor Pharmaceuticals (Sponsored Research Agreement)
	Title of Project: NHA2 in ADPKD
	Role (Principal Investigator, Co-Investigator): Principal Investigator
	Annual amount and date (direct costs only): \$61,500 5/1/2022-4/31/2024
	Total amount of award (if multi-year) and dates (direct costs only): \$123,000

Pending/submitted	
	Grantor: NIDDK (R01)
	Title of Project: PKD1 derepression as a novel therapy for polycystic kidney disease
	Role: Principal Investigator
	Annual amount and date (direct costs only): \$378,000 (requested) 7/1/22-6/30/27
	Total amount of award (if multi-year) and dates (direct costs only): \$1,890,000
	<u>Score: 3rd percentile (March 3rd 22); Funding notification received; Awaiting NOA</u>
	Grantor: NIDDK (U2C – Institutional Networking and Training Grant)
	Title of Project: Kidney, Urology, and Hematology training at UT Southwestern
	Role: Co-PI

	Annual amount and date (direct costs only): \$499,000/ year
	Total amount of award (if multi-year) and dates (direct costs only): unknown

<u>Declined</u>	
	Grantor: Department of Defense, USA (DOD W81XWH-21-PRMRP-EA)
	Title of Project: PKD1 derepression as a novel therapy for polycystic kidney disease
	Role: Principal Investigator
	Annual amount and date (direct costs only): \$400,000/yr 5/1/2022-4/31/2025
	Total amount of award (if multi-year) and dates (direct costs only): \$1,200,000
	<i>*Grant declined in favor of NIDDK R01</i>

<u>Past</u>	Grantor: National Institute of Health RC1 DK086887-01
	Title of Project: MicroRNA-based therapeutics for rare cystic kidney disease
	Role: Co-Investigator
	Annual amount and date (direct costs only): \$312,597/yr 09/22/09-09/29/12
	Total amount of award (if multi-year) and dates (direct costs only): \$635,008
	Grantor: UT Southwestern O'Brien Kidney Research Core (NIH/NIDDK)
	Title of Project: Role of miRNA in kidney development and PKD
	Role: Principal Investigator
	Annual amount and date (direct costs only): \$45,000/yr 6/1/2009-6/30/2010
	Grantor: National Institute of Health K08 DK084311-01
	Title of Project: Role of microRNA in kidney development and pathogenesis of PKD
	Role: Principal Investigator
	Annual amount and date (direct costs only): \$ 134,773/yr 9/08/09-08/30/15
	Total amount of award (if multi-year) and dates (direct costs only): \$673,865
	Grantor: National Institute of Health 1R03DK099568-01
	Title of Project: miRNA-based therapeutics in polycystic kidney disease
	Role (Principal Investigator, Co-Investigator): Principal Investigator
	Annual amount and date (direct costs only): \$50,000/yr 7/1/2013-6/30/2015
	Total amount of award (if multi-year) and dates (direct costs only): \$100,000
	Grantor: Polycystic Kidney Disease Foundation
	Title of Project: Role of miR-17~92 in the pathogenesis of PKD

	Role: Principal Investigator
	Annual amount and date (direct costs only): \$80,000/yr 6/1/2014-5/30/2016
	Total amount of award (if multi-year) and dates (direct costs only): \$160,000
	Grantor: National Institute of Health (R01-DK102572-01A1)
	Title of Project: MicroRNAs: New regulators of disease progression in PKD
	Role: Principal Investigator
	Annual amount and date (direct costs only): \$250,000/yr 05/11/15-4/31/2020
	Total amount of award (if multi-year) and dates (direct costs only): \$1,125,000
	Grantor: Polycystic Kidney Disease Foundation (Fellowship, PI: H. Ramalingam)
	Title of Project: The role of m ⁶ A pathway in Polycystic Kidney Disease
	Role: Mentor
	Annual amount and date (direct costs only): \$60,000/ yr 7/1/2019-6/30/2021
	Total amount of award (if multi-year) and dates (direct costs only): \$120,000
	Grantor: Department of Defense, USA (D01 W81XWH1810673)
	Title of Project: The mechanism of action of anti-miR-17
	Role (Principal Investigator, Co-Investigator): Principal Investigator
	Annual amount and date (direct costs only): \$400,000/ yr 09/30/2018-9/29/2021
	Total amount of award (if multi-year) and dates (direct costs only): \$1,200,000

Teaching and Mentoring Activities

Year(s)	Activity
<u>Medical and graduate school didactic and small group teaching</u>	
July 2010	Chalk talk, 'Acid-base and electrolyte disorders' for 3 rd year medical students during their Internal Medicine rotations
July 2011	Chalk talk, 'Approach to a patient with acute kidney injury' for 3 rd year medical students during their Internal Medicine rotations
July 2010	Original research review, 'iPS cells and human diseases' for 3 rd and 4 th yr medical students during their Internal Medicine rotations
July 2011	Original research review, 'Use of anticoagulation in Atrial Fibrillation' 3 rd and 4 th yr medical students during their Medicine rotations
September 2012	Chalk talk, 'Anatomy of the Nephron' for 3 rd year medical students during their Internal Medicine rotations

	'Lesions of the glomerulus and nephron' for 3 rd year medical students during their Internal Medicine rotations
July 2013	Chalk talk, 'A diagnostic approach to hyponatremia' for 3 rd year medical students during their Internal Medicine rotations Chalk talk, 'Biology of Platelets' for 3 rd year medical students during their Internal Medicine rotations
November 2015	Small group discussion 'Responsible Conduct of Research Course: Mentoring/Mentorship'
April 2017	Polycystic Kidney Disease/Journal club, Human Biology and Disease course.
2019	Historical perspective of discovery of PKD1/2 mutations
2019	Disease oriented grand rounds (MSTP); co-discussed with Daniel Caballero (MD/PhD Student)
2020	Rigor and Reproducibility Course, UTSW Graduate School
<u>Dissertation committees</u>	
2013-2014	Sarada Preeta Kalainayakan, Ph.D-candidate
2015-2018	Alexandra Willcockson, Ph.D-candidate
2018-current	Isabel Lopez-Garcia, MD/Ph.D candidate
<u>Qualifying examination committees</u>	
2013	Qualifying exam: Tao Wang, Ph.D-candidate
2013	Qualifying exam: Sarada Preeta Kalainayakan, Ph.D-candidate
2014	Qualifying exam: Jessica Hicks, Ph.D-candidate
2017	Qualifying exam: Qian Yang, Ph.D-candidate
2018	Qualifying exam: Ze Zhang, Ph.D.-candidate
<u>Committees concerned with medical and graduate student education</u>	
<u>Graduate student rotations</u>	
2011	Alex Aronov (Graduate student)
2011	Daniel Lopes (Graduate student)
2011	Nicole Joiner (STAR student)
2012	Taelor Oppliger (STAR student)
2012	Prachi Thapar (Undergraduate student, Washington University, St. Louis, MO)
2014	Eric Torbellin (SURF student)
2014	Hortensja Brzoska (Visiting student, University College of London)
2015	Danae Olae (SURISK student, Baylor University, Waco, TX)
2016	Grahya Guntur (SURISK Student, University of Maryland)
2017	Avery Endsley (SURISK student, Baylor Univ.)
2018	Benjamin Trammell (SURISK student, RN at Medical City)
<u>Medical student rotations</u>	

2011	Donovan Huynh, MS-1, University of Texas-MB at Galveston
2011	Syed Taha Muntajabuddin, MS-II, UT Southwestern
<u>Undergraduate student trainees</u>	
2010-2012	Ryan Hunter (currently: MD, PhD student at UT Southwestern)
2014-2018 (URM)	Matanel Yheskel (currently MD, PhD student at Albert Einstein College of Medicine)
2016-current	Andrea Flaten
2021-current (URM)	Jesus Alvarez
<u>Postgraduate medical education (graduate & continuing medical education)</u>	
2009-2017	Organizer of the Fellows research conference, Division of Nephrology
2009-current 2018	Renal fellow lecture 'Polycystic kidney disease' Historical perspective "Origins: The ADPKD story"
2010	Internal Medicine Resident lecture 'Genetic Diseases of the Kidney'
July 2012	Internal Medicine Grand Rounds, "New Mechanisms and Therapeutic Approaches in Polycystic Kidney Disease".
May 2016	Renal fellow lecture 'Polycystic kidney disease'
Jan 2018	Internal Medicine Grand Rounds, "MicroRNAs: New Drug Targets for Kidney Diseases"
October 2018	Training Resident Doctors as Innovators in Science (TARDIS) program, "RNA-based drugs for kidney diseases"
<u>Postdoctoral and other trainees</u>	
2011-2014	Lama Nouredine, M.D. (Current position: Assistant Professor, Univ. of Iowa)
2012-2015	Karam Aboudehen, Ph.D. (Current position: Assistant Professor, Univ. of Minnesota)
2013-2016	Ronak Lakhia, M.D. (Current position: Assistant Professor, UT Southwestern)
2015-2018	Sachin Hajarnis, Ph.D. (Current position: MSL, Otsuka Pharmaceuticals)
2018-2020	Abeepsha Mishra, Ph.D. (Current position: Senior Research Scientist, Novo Nordisk Copenhagen, Denmark)
2018-	Harini Ramalingam, Ph.D. (Current position: Post-doc, Patel lab)
2019-2021	Chun-Mein Chang, Ph.D. (Current position: Principal Investigator, Development Center for Biotechnology, Taiwan)
2020- (URM)	Emmanuel Adamako, M.D. (Current position: Assistant Professor, University of Kansas Medical Center)
2022-	June Song, M.D. (Current position: PSTP, Internal Medicine, UT Southwestern)
<u>Faculty Mentoring Committee</u>	
2016-current	Ronak Lakhia, M.D., Assistant Professor, UT Southwestern Medical Center
2020-2022	Hao Liu, M.D., Assistant Professor, UT Southwestern Medical Center

Service to the Community

Year(s)	Role	Organization or institution
May include a brief, one-sentence description of each role if needed (optional)		
2012	Volunteer Physician, Health Fair	DFW Hindu Temple
2013	Volunteer Physician, Health Fair	National Kidney Foundation
2016-present	Team leader (UT-PKD Stars). Raised funds for the PKD Foundation during the annual PKD walk	PKD Foundation, Kansas City, KS
2016	Donor Breakfast. Spoke to a group of high net worth donors of the PKD foundation on scientific progress in the PKD field (Orlando, FL)	PKD Foundation, Kansas City, KS
2017	Hosted the “PKD Day of Learning” at UTSW for PKD patients and families	North Texas Chapter of the PKD Foundation, Dallas, TX.
2017, 2018, 2019	Speaker at a fund-raising event “cocktails in the garden” in Westlake, TX	North Texas Chapter of the PKD Foundation
2018	Founder’s circle/PKD philanthropy	Miami, PKD Foundation

Invited Lectures (since 2010)

Year(s)	Title	Location
Regional/Local		
2010	MicroRNAs: Novel regulators of kidney development and homeostasis	New Faculty Research Forum at UT Southwestern Medical Center, Dallas, TX
2010	Role of miRNAs in kidney development and disease	UT Southwestern Medical School O’Brien Center/Norman Carter Lecture, Dallas, TX
2012	MicroRNAs and Kidney Fibrosis	5 th Annual UTSW O’Brien Center Symposium
2012	New Mechanisms and Therapeutic Approaches in Polycystic Kidney Disease	Internal Medicine Grand Rounds, UT Southwestern Medical Center, Dallas, TX
2013	miRNAs as therapeutic targets in polycystic kidney disease	Center for Mineral Metabolism and Clinical Research, UT Southwestern Medical Center, Dallas, TX
2014	MicroRNAs: New regulators of disease progression in polycystic kidney disease	Department of Internal Medicine research conference, UT

		Southwestern Medical Center, Dallas, TX
2014	New Mechanisms and Therapeutic Approaches in Polycystic Kidney Disease	MSTP Science of Medicine lecture, UT Southwestern Medical Center, Dallas, TX
2015	Updates on ADPKD	PKD foundation (North Texas Chapter), Dallas, TX
2016	MicroRNAs: New drug targets for PKD	VA medical center of Dallas, Dallas, TX
2016	MicroRNAs: New drug targets for PKD	Division of Nephrology Research Seminar Series, UT Southwestern Medical Center, Dallas, TX
2017	Anti-miR therapy for ADPKD	10 th Annual UTSW O'Brien Center Symposium, Dallas, TX
2018	Updates on ADPKD	South Plains Kidney Foundation - Lubbock Medical Symposium, Lubbock, TX
2018	miRNA-based drugs for PKD	Cell Biology of Disease Series, Department of Cell Biology, UT Southwestern, Dallas, TX
2019	Updates on ADPKD	2019 Updates in Internal Medicine UT Southwestern, Dallas, TX
2020	Crystal deposition in ADPKD	Center of Mineral Metabolism, UTSW
2020	Polycystic Kidney Disease in 2020	Dallas Internist Club, UT Southwestern, Dallas, TX
2021	PKD1 therapy for polycystic kidney disease	McDermott Center for Human Development, UT Southwestern, Dallas, TX
2022	PKD1 therapy for polycystic kidney disease	Charles and Jane Pak Center for Mineral Metabolism and Clinical Research, UT Southwestern, Dallas, TX
National		
2013	miRNAs as therapeutic targets in polycystic kidney disease	Regulus Therapeutics, San Diego, CA, February, 2013
2013	miRNAs: New regulators of disease progression in PKD	Larry Sullivan Conference, University of Kansas Medical Center, Kansas City, KS
2013	miR-17~92 promotes cyst growth in polycystic kidney disease	Southern Salt Water and Kidney Club, Sarasota, FL, December 2013
2014	microRNAs: Novel drug targets for polycystic kidney disease	Northwestern University Medical School, Chicago, IL
2015	microRNAs: Novel drug targets for polycystic kidney disease	University of California-San Diego, San Diego, CA

2015	microRNAs: Novel drug targets for polycystic kidney disease	University of Alabama, Birmingham, AL
2015	microRNAs and PKD	Yale University, New Haven, CT
2015	miR-17~92 promotes disease progression in genetic models of ADPKD	MUSC, Charleston, SC
2015	microRNAs: Novel drug targets for polycystic kidney disease	University of Minnesota, Minneapolis, MN
2015	microRNAs: Novel drug targets for polycystic kidney disease	Regulus Therapeutics, San Diego, CA
2016	Signs and symptoms of ESRD	PKD convention, Orlando, FL
2016	Autosomal Dominant Polycystic Kidney Disease and miR-17	R&D Day, Regulus Therapeutics, New York, NY
2017	Anti-miR therapy for ADPKD	Renal Grand Rounds, University of Miami, Miami, FL
2017	microRNAs: Novel drug targets for polycystic kidney disease	Mayo Clinic, Rochester, MN
2018	Anti-miR therapy for ADPKD	Renal Symposium 2018, University of Alabama, Birmingham, AL
2018	RNA-based drugs for Polycystic Kidney Disease	Annual PKD symposium, University of Maryland, Baltimore, MD
2018	Post-transcriptional regulation of RNA in Polycystic Kidney Disease	Larry Sullivan Conference, University of Kansas Medical Center, Kansas City, KS
2020	Anti-miR and PKD1 therapy for polycystic kidney disease	Brigham and Women's Hospital, Harvard Medical School, Boston, MA
2021	<i>PKD1</i> (mRNA) therapy for Polycystic Kidney Disease	Translate Bio (mRNA Biotech), Cambridge, MA
2022	<i>PKD1</i> (mRNA) therapy for Polycystic Kidney Disease	National O'Brien Centers Kidney Seminars
2022	RNA-based therapeutics in ADPKD	Department of Biochemistry and Molecular Biology, Augusta University, Augusta, GA
2022	PKD1 therapy for ADPKD	Robert Schrier lectureship, University of Colorado, Denver, CO
2022 (invited)	PKD1 therapy for ADPKD	Division of Nephrology, University of Utah, Salt Lake City
2022 (invited)	TBD	NIDDK-sponsored Polycystic Kidney Disease Research Resource Consortium Symposium

International Meetings & Institutions		
2010	Acute kidney injury and apical primary cilia	Basic science research symposium, American Society of Nephrology (ASN) Annual Meeting, Denver, CO, November, 2010
2012	miR-17~92 promotes kidney cyst growth in polycystic kidney disease	Oral communication, American Society of Nephrology (ASN) Annual Meeting, San Diego, CA November, 2012
2013	miR-17~92 promotes kidney cyst growth in polycystic kidney disease	Keystone Symposium on Non-coding RNAs-Jan 2013, Vancouver, Canada (Poster Presentation)
2014	miRNAs and Polycystic Kidney Disease	51 st ERA-EDTA Congress, Amsterdam, The Netherlands
2014	miR-17~92 promotes disease progression in genetic models of ADPKD	Oral communication, American Society of Nephrology (ASN) Annual Meeting, Philadelphia, PA November 2014
2017	Role of non-coding RNAs in PKD	FASEB meeting, Big Sky, Montana
2018	Anti-miR-17 therapy for PKD	University of Bern, Bern, Switzerland
2018	MicroRNA-based drugs for PKD	2 nd International forum on polycystic and rare kidney diseases, Hefei, Anhui, China
2018	Collecting duct and microRNAs	Basic Science symposium, American Society of Nephrology (ASN) Annual Meeting, San Diego, CA
2018	PKD Signaling Pathways	ASN Kidney Week Early Program, October 2018, San Diego, CA
2018	Anti-microRNA screen uncovers miR-17 family within miR-17~92 cluster as the primary driver of kidney cyst growth	Oral communication (Matanel Yheskel) American Society of Nephrology (ASN) Annual Meeting, San Diego, CA
2019	Gene Therapy for PKD	Australia-New Zealand PKD symposium, Sydney, Australia
2019	Clinical Genetics in ADPKD	Australia-New Zealand PKD symposium, Sydney, Australia
2019	Hypertension in ADPKD	Australia-New Zealand PKD symposium, Sydney, Australia
2019	Are we ready for microRNAs in ADPKD?	University of Sydney, Sydney, Australia
2020 (Covid cancellation)	RNA chemical modification in PKD	FASEB Meeting, Lisbon, Portugal
2021	miR-17 in health and Disease	Hansoh Pharma, Shanghai, China

2021	Novel mouse models of PKD (Panel Discussion)	FASEB Catalyst Conference (virtual)
2021	Anti-miR-17 therapy for ADPKD	Cardio renal biology, Novo Nordisk, Copenhagen, Denmark
2022	Anti-miR therapy for human diseases	Keystone Symposia on Small Regulatory RNAs, Santa Fe, NM
2022	PKD1 cis-inhibition in ADPKD	FASEB Meeting, Lisbon, Portugal

Technological and Other Scientific Innovations

Innovation: Identified anti-miR-17 as a new drug candidate for polycystic kidney disease

Patents

1.	International Serial No - PCT/US16/48603 (filed August 25, 2016) Inventors: Vishal Patel (UT Southwestern) and John Androsavich (Regulus Therapeutics). Title: Anti-miR-17 Oligonucleotides as a Novel Therapeutic Agent for Polycystic Kidney Disease
2.	International Patent Application No. PCT/US2017/064432 (filed December 4, 2017) Inventors: Vishal Patel (UT Southwestern) and Charles Allerson, B. Nelson Chau, and John Androsavich (Regulus Therapeutics). Title: Methods of treatment of Polycystic kidney disease.

Bibliography (Peer-Reviewed Publications)

Access to peer-reviewed publications: <https://www.ncbi.nlm.nih.gov/myncbi/collections/mybibliography/>

Original Research Articles

1.	Ma Z, Gong Y, Patel V , Karner CM, Fischer E, Hiesberger T, Carroll TJ, Pontoglio M, Igarashi P. Mutations of HNF-1beta inhibit epithelial morphogenesis through dysregulation of SOCS-3. <i>Proc Natl Acad Sci U S A.</i> 2007 Dec 18; 104(51):20386-91.
2.	Baba M, Furihata M, Hong SB, Tessarollo L, Haines DC, Southon E, Patel V , Igarashi P, Alvord WG, Leighty R, Yao M, Bernardo M, Ileva L, Choyke P, Warren MB, Zbar B, Linehan WM, Schmidt LS. Kidney-targeted Birt-Hogg-Dube gene inactivation in a mouse model: Erk1/2 and Akt-mTOR activation, cell hyperproliferation, and polycystic kidneys. <i>J Natl Cancer Inst.</i> 2008 Jan 16; 100(2):140-54

3.	<p>Woo K, Dutta AK, Patel V, Kresge C, Feranchak AP.</p> <p>Fluid-flow induces mechanosensitive ATP release, calcium signaling, and Cl-transport in biliary epithelial cells through a PKC{zeta}-dependent pathway. <i>J Physiol.</i> 2008 Jun 1;586(Pt 11):2779-98.</p>
4. First author	<p>Patel V, Li L, Cobo-Stark P, Shao X, Somlo S, Lin F, Igarashi P.</p> <p>Acute kidney injury and aberrant planar cell polarity induce cyst formation in mice lacking renal cilia. <i>Hum Mol Genet.</i> 2008 Jun 1; 17(11):1578-90.</p>
5.	<p>Gong Y, Ma Z, Patel V, Fischer E, Hiesberger T, Pontoglio M, and Igarashi P.</p> <p>HNF-1β regulates transcription of kinesin family member 12, a polycystic kidney disease modifier gene. <i>J Am Soc Nephrol.</i> 2009 Jan;20(1):41-7. PMID:19005009, PMCID: PMC2615735</p>
6.	<p>Li L, Zepeda-Orozco D, Patel V, Troung P, Karner C, Carroll T and Lin F.</p> <p>Aberrant Planar Cell Polarity Induced By Urinary Tract Obstruction. <i>Am J Physiol Renal Physiol.</i> 2009 Dec;297(6): F1526-33, PMID: 19794107, PMCID:PMC2801343</p>
7.	<p>Saori Nishio, Xin Tian, Anna Rachel Gallagher, Zhiheng Yu, Vishal Patel, Peter Igarashi, and Stefan Somlo.</p> <p>Loss of Oriented Cell Division Does not Initiate Cyst Formation. <i>J Am Soc Nephrol</i>, 2010 Feb;21(2):295-302. PMID: 19959710, PMCID: PMC2834544</p>
8.	<p>Boehlke C, Kotsis F, Patel V, Braeg S, Voelker H, Bredt S, Beyer T, Janusch H, Hamann C, Gödel M, Müller K, Herbst M, Hornung M, Doerken M, Köttgen M, Nitschke R, Igarashi P, Walz G, Kuehn EW.</p> <p>Primary cilia regulate mTORC1 activity and cell size through Lkb1. <i>Nat Cell Biol.</i> 2010 Nov;12(11):1115-22. PMID: 20972424, PMCID: PMC3390256</p>
9. (Corresponding author)	<p>Patel V, Hajarnis S, Williams D, Hunter R, Huyn D, Igarashi P.</p> <p>MicroRNAs regulate renal tubule maturation through modulation of Pkd1. <i>J Am Soc Nephrol</i>, 2012 Dec;23(12):1941-8. PMID: 23138483, PMCID: PMC3507362 *Cover image *Accompanying editorial</p>
10. (Corresponding author)	<p>Patel V, Williams D, Hajarnis S, Hunter R, Pontoglio M, Somlo S, and Igarashi P.</p>

	<p>miR-17~92 microRNA cluster promotes cyst growth in polycystic kidney disease. Proc Natl Acad Sci U S A 2013 Jun 25; 110 (26): 10765-70. PMID: 23759744, PMCID: PMC3696812</p>
11.	<p>Williams SS, Cobo-Stark P, Aboudehen K, Hajarnis S, Shao X, Richardson J, Patel V, and Igarashi P.</p> <p>Tissue-specific regulation of the PKHD1 (ARPKD) gene promoter. Am J Physiol Renal Physiol. 2014 Aug 1;307(3):F356-68. PMID:24899057, PMCID: PMC4121570</p>
12.	<p>Hajarnis S, Patel V, Aboudehen K, Attanasio M, Cobo-Stark P, Pontoglio M, and Igarashi P.</p> <p>Transcription Factor HNF-1 β Regulates miR-200 Expression Through a Long Non-coding RNA. J Biol Chem. 2015 Oct 9;290(41)</p>
13.	<p>Aboudehen K, Kim M, Mitsche M, Garland K, Anderson N, Pontoglio M, Patel V, Xie Y, DeBose-Boyd R, and Igarashi P.</p> <p>Transcription Factor HNF-1β Regulates Renal Cholesterol Metabolism. J Am Soc Nephrol. 2016 Aug;27(8):2408-21, PMID:26712526, PMCID: PMC4978044</p>
14. (Corresponding author)	<p>Lakhia R, Hajarnis S, Williams D, Aboudehen K, Yheskel M, Xing C, Wallace D and Patel V.</p> <p>miR-21 aggravates cyst growth in a model of polycystic kidney disease. J Am Soc Nephrol. 2016 Aug;27(8):2319-30 PMID:26677864, PMCID: PMC4978047.</p>
15.	<p>Hortensja Ł. Brzóška, Angela M. d'Esposito, Maria Kolatsi-Joannou, Vishal Patel, Peter Igarashi, Yunping Lei, Richard H. Finnell, Mark F. Lythgoe, Adrian S. Woolf, Eugenia Papakrivopoulou, David A. Long.</p> <p>Planar cell polarity genes <i>Celsr1</i> and <i>Vangl2</i> are necessary for kidney growth, differentiation, and rostrocaudal patterning. Kidney International. 2016 Dec;90(6):1274-1284. PMID: 27597235, PMCID: PMC5126096</p>
16. (Corresponding author)	<p>Sachin Hajarnis^{1*}, Ronak Lakhia^{1*}, Matanel Yheskel^{1#}, Darren Williams^{1#}, Mehran Sorourian⁴, Xueqing Liu⁴, Karam Aboudehen⁵, Shanrong Zhang³, Kara Kersjes⁴, Ryan Galasso⁴, Jian Li⁴, Vivek Kaimal⁴, Steven Lockton⁴, Scott Davis⁴, Joshua Johnson², William L. Holland², Christine M. Kusminski², Peter C. Harris⁶, Marie Trudel⁷, Darren P. Wallace⁸, Peter Igarashi⁵, Edmund C. Lee⁴, John R. Androsavich⁴ and Vishal Patel.</p>

	<p>microRNA-17 family promotes polycystic kidney disease progression through modulation of mitochondrial metabolism. Nature Communications, 2017 Feb 16;8:14395 PMID: 28205547, PMCID: PMC5316862</p>
17.	<p>Aboudehen, K, Nouredine, L., Cobo-Stark, P., Avdulov, S., Farahani, S., Gearhart, M.D., Bichet, D.G., Pontoglio, M., Patel, V., and Igarashi, P. (2017)</p> <p>Hepatocyte nuclear factor-1β regulates urinary concentration and response to hypertonicity. J Am Soc Nephrol. 2017 Oct;28(10):2887-2900. PMID: 28507058, PMCID: PMC5619957</p>
18.	<p>Qian Wang, Patricia Cobo-Stark, Vishal Patel, Stefan Somlo, Pyung-Lim Han, and Peter Igarashi.</p> <p>Adenylyl cyclase 5 deficiency reduces renal cyclic AMP levels and cyst growth in an orthologous model of polycystic kidney disease. Kidney International, 2017 Oct 14. pii: S0085-2538(17)30576-8. PMID: 29042084</p>
19. (Corresponding author)	<p>Sachin Hajarnis, Matanel Yheskel, Darren Williams, Michel Baum, Olivier Devuyst, and Vishal Patel.</p> <p>Suppression of microRNA activity in kidney collecting ducts induces partial epithelial-to-mesenchymal transition and produces fibrosis. J Am Soc Nephrol. 2017 Oct 11. doi: 10.1681/ASN.2017030334. PMID:29021386</p> <p>*Accompanying editorial *Journal cover (Feb 2018)</p>
20. (Corresponding author)	<p>Ronak Lakhia, Matanel Yheskel, Andrea Flaten, Ezekiel B Quittner-Strom, William Holland, and Vishal Patel.</p> <p>PPARA agonist fenofibrate enhances fatty acid β-oxidation and attenuates polycystic kidney and liver disease in mice. Am J Physiol Renal Physiol, 2017 Sep 13. doi: 10.1152/ajprenal.00352.2017. PMID: 28903946.</p>
21.	<p>Karam Aboudehen, Shayan Farahani, Mohammed Kanchwala, Siu Chiu Chan, Svetlana Avdulov, Alan Mickelson, Dayeon Lee, Micah D. Gearhart, Vishal Patel, Chao Xing, and Peter Igarashi.</p> <p>Long non-coding RNA Hoxb3os is dysregulated in autosomal dominant polycystic kidney disease and regulates mTOR signaling. J Biol Chem, 2018 Jun 15;293(24):9388-9398.</p>

	doi: 10.1074/jbc PMID:29716997, PMCID: PMC6005429
22. (Corresponding Author)	Matanel Yheskel, Ronak Lakhia, Andrea Flaten, and <u>Vishal Patel</u> . Anti-microRNA screen uncovers miR-17 family within miR-17~92 cluster as the primary driver of kidney cyst growth. Scientific Reports , 2019 Feb 13;9(1):1920. doi: 10.1038/s41598-019-38566-y. PMID: 30760828
23. (Corresponding Author)	Edmund C. Lee, Tania Valencia, Charles Allerson, Annelie Schairer, Andrea Flaten, Matanel Yheskel, Kara Kersjes, Jian Li, Sole Gatto, Mandeep Takhar, Steven Lockton, Adam Pavlicek, Michael Kim, Tiffany Chu, Randy Soriano, Scott Davis, John R. Androsavich, Salma Sarwary, Tate Owen, Julia Kaplan, Kai Liu, Graham Jang, Steven Neben, Philip Bentley, Timothy Wright, and <u>Vishal Patel</u> Discovery and preclinical evaluation of anti-miR-17 oligonucleotide RGLS4326 for the treatment of polycystic kidney disease. Nature Communications , 2019 Sep 12;10(1):4148. doi: 10.1038/s41467-019-11918-y
24. (Corresponding Author)	Ronak Lakhia, Matanel Yheskel, Andrea Flaten, Harini Ramalingam, Karam Aboudehen, Silvia Ferrè, Laurence Biggers, Abheepsa Mishra, Christopher Chaney, Darren P. Wallace, Thomas Carroll, Peter Igarashi, and <u>Vishal Patel</u> . Interstitial microRNA miR-214 attenuates inflammation and polycystic kidney disease progression. JCI Insight , 2020 Apr 9;5(7). doi: 10.1172/jci.insight.133785. PubMed PMID: 32182218
25.	Siu Chiu Chan, Sachin S. Hajarnis, Sophia Vrba, <u>Vishal Patel</u> , and Peter Igarashi. Hepatocyte nuclear factor 1 β suppresses canonical Wnt signaling through transcriptional repression of lymphoid enhancer-binding factor 1. J Biol Chem , 2020 Oct 13; doi:10.1074/jbc.RA120.015592
26. (Corresponding Author)	Harini Ramalingam, Sonu Kashyap, Patricia Cobo-Stark, Andrea Flaten, Chun-Mien Chang, Sachin Hajarnis, Kyaw Zaw Hein, Jorgo Lika, Gina M Warner, Jair M. Espindola-Netto, Ashwani Kumar, Mohammed Kanchwala, Chao Xing, Eduardo N. Chini, and <u>Vishal Patel</u> A methionine-Mettl3-N ⁶ -methyladenosine axis promotes polycystic kidney disease. Cell Metabolism 2021 Apr 13; doi: 10.1016/j.cmet.2021.03.024 PubMed PMID: 33852874 (Journal cover -June 2021)
27. (Senior Author)	Ronak Lakhia ^{1*} , Abheepsa Mishra ^{1*} , Laurence Biggers ¹ , Venkat Malladi ² , Patricia Cobo-Stark ¹ , Sachin Hajarnis ¹ , Chun Mein Chang ¹ , and <u>Vishal Patel</u> ¹

	Enhancer and super-enhancer landscape in polycystic kidney disease (<i>Kidney International</i> , revision submitted) bioRxiv (pre-print) doi: https://doi.org/10.1101/2021.11.19.469306
28. (Corresponding Author)	Ronak Lakhia ^{1*} , Harini Ramalingam ^{1*} , Chun-Mien Chang ¹ , Patricia Cobo-Stark ¹ , Laurence Biggers ¹ , Andrea Flaten ¹ , Jesus Alvarez ¹ , Tania Valencia ² , Darren P. Wallace ³ , Edmund Lee ² , and Vishal Patel ¹ <i>PKD1</i> and <i>PKD2</i> mRNA cis-inhibition drives polycystic kidney disease progression <i>Nature Communications</i> , 2022 Aug 15 th ; doi: 10.1038/s41467-022-32543-2 PubMed PMID: 35965273

Reviews, Chapters, Monographs and Editorials

1.	<u>Vishal Patel</u> , Renuka Chowdhury, and Peter Igarashi. Advances in the pathogenesis and treatment of polycystic kidney disease. <i>Curr Opin Nephrol Hypertens</i> . 2009 Mar;18(2):99-106, PMID: 19430332, PMCID:PMC2820272
2.	<u>Vishal Patel</u> . Balancing Wnts in Polycystic Kidney disease <i>J Am Soc Nephrol</i> 2010 Sep;21(9):1412-4, PMID: 20705708
3.	<u>Vishal Patel</u> . Tagged Fibrocystin Sheds its Secrets, <i>J Am Soc Nephrol</i> . 2011 Dec;22(12):2148-50. PMID: 22080423, PMCID: PMC3250200
4.	<u>Vishal Patel</u> and Lama Nourredine. MicroRNAs and Renal Fibrosis. <i>Curr Opin Nephrol Hypertens</i> . 2012 Jul;21(4):410-6. PMID:22622653
5.	Lama Nourredine, Sachin Hajarnis, and <u>Vishal Patel</u> . MicroRNAs and Polycystic kidney disease. <i>Drug Discov Today Dis Models</i> . 2013;10(3):e137-e1743. PMID: 25221607
6.	Matanel Yheskel and <u>Vishal Patel</u> . Therapeutic microRNAs in Polycystic Kidney Disease. <i>Curr Opin Nephrol Hypertens</i> . 2017 Jul;26(4):282-289. PMID:8399020
7.	Ramalingam H, Yheskel M, <u>Patel V</u> . Modulation of polycystic kidney disease by non-coding RNAs.

	Cell Signaling . 2020 Jan 23;109548. (<i>Special issue in honor of Lt. Jared Grantham</i>)
8.	Harini Ramalingam and Vishal Patel Decorating histones in polycystic kidney disease J Am Soc Nephrol . 2022 Aug 2; doi: 10.1681/ASN.2022070750 PubMed PMID: 35918148

Books/Textbooks

1.	Fangming Lin, Vishal Patel , and Peter Igarashi: Renal Dysgenesis (Chapter), Genetic Diseases of the Kidney 2009 , Edited by Richard Lifton, Stefan Somlo, Gerhard Giebisch, and Donald Seldin
2.	Sachin Hajarnis, Ronak Lakhia and Vishal Patel MicroRNAs and PKD (Chapter) Polycystic Kidney disease . Edited by Xiagong Li, October 2015 https://www.ncbi.nlm.nih.gov/books/NBK373371/
3.	R Lakhia, A Mishra, V Patel . Manipulation of renal gene expression using oligonucleotides. Methods in Cell Biology (chapter), Elsevier, 2019, Edited by Thomas Weimbs

Case Reports

1.	Patel V and Hedayati SS. Lactic acidosis in an HIV-infected patient receiving highly active antiretroviral therapy. Nat Clin Pract Nephrol . 2006 Feb; 2(2):109-14 PMID: 1693240
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