



Animal Model Workshop

# Program:

## *RCC Animal Model Workshop*

SEPTEMBER 11-13, 2025 • UTSW MEDICAL CENTER • DALLAS, TX  
T. BOONE PICKENS MEDICAL EDUCATION & CONFERENCE CENTER, NG3.112



KidneyCancerAssociation® IN PARTNERSHIP WITH

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Kidney Cancer Program

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# Welcome: Dr. James Brugarolas



On behalf of the Kidney Cancer Program at UT Southwestern Medical Center, I’m delighted to welcome you to the RCC Animal Model Workshop hosted in partnership with the Kidney Cancer Association (KCA). Animal models are instrumental for cancer research, and we are excited to host this workshop on our campus.

Supported by numerous funding agencies including CPRIT, DOD/KCRP, and, in particular, our NCI SPORE, our Kidney Cancer Program has launched a comprehensive effort that includes genetically-engineered mouse models, somatically-targeted models, tumorgrafts, humanized models as well as organoids. These models have been instrumental in advancing our understanding of kidney cancer biology, the identification of biomarkers, as well as the development of novel imaging modalities and therapeutics. As such, I was pleased to partner with Dr. La Rosa and KCA, when they approached me to host this workshop.

We appreciate each faculty member that will be joining us for the workshop and are especially grateful to our keynote speakers for making time out of their busy schedules, Drs. Andrea Ballabio, Bruce Beutler, Richard Flavell, William Kaelin and Marston Linehan.

We are delighted that many UT Southwestern faculty will participate in the event. In addition, the agenda includes a look behind the scenes at our avant-garde tumorgraft program, one of the largest in the world, which is possible through generous contributions and tissue donation from nearly 2,000 patients treated at UT Southwestern and our county hospital, Parkland Health.

I’m grateful to the staff that made our hosting this workshop possible, particularly Jenny Beth Humann, our program analyst.

We hope that the workshop will bring together leaders from different parts of the world to exchange ideas, foster collaboration, and accelerate progress in our joint battle against kidney cancer.

Please don’t hesitate to reach out if I can be of assistance during your visit and safe travels!  
(c: 214-766-0640)

Sincerely,

A handwritten signature in black ink that reads "James Brugarolas".

James Brugarolas, M.D., Ph.D.  
*Director, Kidney Cancer Program*  
*Sherry Wigley Crow Endowed Chair in Cancer Research*  
*Professor, Internal Medicine/ Hematology-Oncology*  
*Cancer Biology, Genetics, Development and Disease*  
*Simmons Comprehensive Cancer Center*  
*University of Texas Southwestern Medical Center*

# Welcome: Dr. Salvatore La Rosa



I’m proud to welcome you all to the first-ever RCC Animal Model Workshop, which the Kidney Cancer Association presents in partnership with the UT Southwestern Medical Center Kidney Cancer Program.

The genesis of this workshop was a recognition that standardized and validated animal models are necessary to foster the most effective knowledge-sharing across labs that are working hard to better understand kidney cancer. Our goal is to foster meaningful discussions, inspire new ideas, and strengthen collaborations. Over the coming days, you will have the opportunity to present your scientific knowledge, learn from your peers, and participate in hands-on sessions with a diverse and dedicated group of researchers to define a standard that will benefit the entire field. I encourage you to make the most of this opportunity to be part of this passionate group of innovators!

I’m especially grateful to Dr. Jim Brugarolas and his team at UTSW for their efforts to make this RCC Animal Model Workshop a reality, as well as the entire planning committee – Dr. Mahul Amin (LabCorp; USC Keck School of Medicine; University of Tennessee Health Science Center), Dr. Ari Hakimi (Memorial Sloan Kettering Cancer Center), Dr. Roberto Pili (University at Buffalo, Jacobs School of Medicine), Dr. Sabina Signoretti (Harvard Medical School/Dana-Farber Cancer Institute), and Dr. Ramaprasad Srinivasan (National Cancer Institute).

Thank you all for joining us to share your ideas and contribute to this critical preclinical work. Your participation helps accelerate our collective mission to drive progress in biomedical science in the ultimate search for improved health, care, and quality of life for the patients and families we serve. I look forward to a productive and inspiring workshop!

Sincerely,

A handwritten signature in black ink that reads "Salvatore La Rosa".

Salvatore La Rosa, Ph.D.  
*Chief Scientific Officer, KCA*



## Animal Model Workshop

### About RCC Animal Model Workshop

The RCC Animal Model Workshop unites pathologists, researchers, and other experts for the first time to standardize and validate animal models, enhancing the accuracy of preclinical trials. By collaborating to classify and characterize a range of RCC animal models, we aim to drive innovative research, help translate therapeutics to the clinic, and improve lives for patients and families.

JOIN THE CONVERSATION ON TWITTER/X

#RCCAMW • @KIDNEYCANCER



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## RCC Animal Model Workshop Planning Committee



**Dr. Mahul Amin**

*LabCorp, USC Keck School of  
Medicine, University of Tennessee  
Health Science Center*



**Dr. James Brugarolas**

*UT Southwestern  
Medical Center*



**Dr. Ari Hakimi**

*Memorial Sloan Kettering  
Cancer Center*



**Dr. Roberto Pili**

*University at Buffalo,  
Jacobs School of Medicine*



**Dr. Sabina Signoretti**

*Harvard Medical School/  
Dana-Farber Cancer Institute*



**Dr. Ramaprasad Srinivasan**

*National Cancer Institute  
(NCI)*



# Agenda

## Thursday • September 11

2:00PM–2:05PM	<b>Welcome</b> <i>Salvatore La Rosa (KCA), James Brugarolas (UTSW)</i>
2:05PM–3:25PM	<b>Session 1: The Mouse Kidney Cancer Atlas: From Genes to the Clinic</b>
	<b>Keynote Speaker #1</b> <i>Marston Linehan (NCI)</i>
	<b>Overview of Somatic Models: Status, Availability, and What is Still Missing?</b> <i>Ari Hakimi (MSKCC)</i>
	<b>Overview of Humanized Models in Kidney Cancer</b> <i>Tao Yue (UTSW)</i>
	<b>Panel Discussion &amp; Q&amp;A</b> <i>All</i>
3:25PM–3:45PM	<b>Break</b>
3:45PM–5:35PM	<b>Session 2: Challenges and Specifics of Creating a Good Model</b>
	<b>Keynote Speaker #2</b> <i>William Kaelin (DFCI)</i>
	<b>Pathology Review 1: Morphologic Classification of RCC</b> <i>Mahul Amin (LabCorp)</i>
	<b>Pathology Review 2: From Gene to Phenotype: Pathological Analysis of Kidney Cancer Mouse Models</b> <i>Payal Kapur (UTSW)</i>
	<b>Translating Kidney Cancer Models</b> <i>James Brugarolas (UTSW)</i>
	<b>Tumor Heterogeneity, from Genetic Characterization to Epigenetic and Metabolic Profiles</b> <i>Roberto Pili (UBuffalo)</i>
	<b>Panel Discussion &amp; Q&amp;A</b> <i>All</i>

## Friday • September 12

7:30AM–8:25AM	<b>Breakfast</b>
8:25AM–8:30AM	<b>Welcome to Day 2</b> <i>Ramaprasad Srinivasan (NCI)</i>
8:30AM–9:30AM	<b>Session 3: Foundations in Fur: Genetically Engineered Mice as RCC Pioneers</b>  <i>Bingqing Xie (UTSW), Ari Hakimi (MSKCC), Lorraine Gudas (Weill Cornell), Sakari Vanharanta (UHelsinki), Thomas Carroll (UTSW)</i>
	<b>Panel Discussion &amp; Q&amp;A</b> <i>All</i>
9:30AM–11:10AM	<b>Session 4: Shades Beyond Clear: GEM Models of Rare Renal Cell Carcinomas</b>
	<b>Keynote Speaker #3</b> <i>Andrea Ballabio (TIGEM)</i>
	<b>tRCC Models</b> <i>Gopinath Prakasam (UTSW), Tamara Lotan (JHU), Gabriel Malouf (UStrasbourg)</i>
	<b>nccRCC Models</b> <i>Laura Schmidt (NCI), Eyal Gottlieb (MDACC), Lisa Henske (BWH), Alessandra Boletta (San Raffaele)</i>
	<b>Panel Discussion &amp; Q&amp;A</b> <i>All</i>
11:10AM–11:30AM	<b>Break</b>
11:30AM–12:35PM	<b>Session 5: Code to Cancer: In Vivo CRISPR Engineering of Renal Tumors</b>  <i>William Kaelin (DFCI), Giannicola Genovese (MDACC), Lynda Vuong (MSKCC), James Brugarolas (UTSW)</i>
	<b>Panel Discussion &amp; Q&amp;A</b> <i>All</i>
12:35PM–1:30PM	<b>Lunch</b>
1:30PM–2:30PM	<b>Session 6: Patient Tumors, Mouse Hosts: PDX Models Driving RCC Translation</b>  <i>Roy Elias (JHU) and Vanina Toffessi Tcheuyap (UTSW), Niki Zacharias Millward (MDACC), Oriol Casanovas (Catalan Institute of Oncology), Yizheng Xue (UPenn)</i>
	<b>Panel Discussion &amp; Q&amp;A</b> <i>All</i>

2:45PM–3:45PM	PDX Hands-On Workshop in Room NA3.104
3:45PM–4:05PM	Break
4:05PM–5:35PM	Session 7: Bridging Species: Humanized Mouse Models for Kidney Cancer
Keynote Speaker #4 Richard Flavell (Yale)	
Michael Brehm (UMass), David Hsu (Duke), Keith Lawson (UHN), Sanjeev Noel (JHU), Tao Yue (UTSW)	
Panel Discussion & Q&A All	
5:35PM–6:25PM	Session 8: Kidney Cancer in a Dish: Organoid Models as Translational Testbeds
Annika Fendler (Charite Berlin), Srinivas Malladi (UTSW), Samir Zaidi (Yale), Allison May (UVirginia)	
Panel Discussion & Q&A All	
6:30PM–8:30PM	Reception on 14th Floor

Saturday • September 13

7:30AM–8:20AM	Breakfast
8:20AM–8:30AM	Working Group Instructions Committee
8:30AM–10:00AM	Session 9: Breakout Sessions
Group 1: Pixels and Pathology: Digital Frontiers in Kidney Cancer Modeling Sabina Signoretti (DFCI), Mahul Amin (LabCorp), Payal Kapur (UTSW), Yingbei Chen (MSKCC) ROOM ND3.218	
Group 2: Calibrating the Model: Benchmarking RCC Platforms for Clinical Relevance Roberto Pili (UBuffalo), James Brugarolas (UTSW) NG3 AUDITORIUM	
Group 3: Blueprints for Success: Best Practices in RCC Model Development Ari Hakimi (MSKCC), Ramaprasad Srinivasan (NCI) ROOM NG3.202	
Group Report 1 Volunteer #1	

Group Report 2 Volunteer #2	
Group Report 3 Volunteer #3	
10:00AM–10:30AM	Break
10:30AM–12:45PM	Session 10: From Discovery to Delivery: RCC Models Powering Therapies, Resistance Solutions, and Diagnostics
Keynote Speaker #5 Bruce Beutler (UTSW)	
Pharmacokinetic Analyses of Mouse Models Noelle Williams (UTSW)	
Dissecting Metabolic Pathways in RCC Mouse Models Ralph DeBerardinis (UTSW)	
Lipid Metabolism in RCC Models Javier Garcia Bermudez (UTSW)	
Targeting Metabolism in Kidney Cancer Scott Welford (UMiami)	
Targeting YAP/TAZ in ccRCC Chunling Yi (Georgetown University)	
Molecular Imaging Resources at UTSW for Kidney Cancer Models in Rodents Xiankai Sun (UTSW)	
Deploying RCC Mouse Models to Advance Biology and Therapy Qing Zhang (UTSW)	
Panel Discussion & Q&A All	
12:30PM–12:45PM	Conclusive Remarks/Publication Strategy Planning Committee
12:45PM	Grab-and-Go Lunch

# Keynote Speakers



## Andrea Ballabio, MD

*Professor, TIGEM*

Dr. Ballabio obtained an M.D. degree at the University of Naples, Italy, where he completed his residency in Pediatrics. He was then post-doctoral fellow at the Institute of Genetics and Biophysics in Naples and at Guy’s hospital in London UK. He then moved to the USA where he was Associate Professor and Co-director of the Human Genome Center at the Department of Molecular and Human Genetics of Baylor College of Medicine in Houston, Texas. In 1994, he became the founding director of the Telethon Institute of Genetics and Medicine (TIGEM) in Italy. In 1998, he became President of the European Society of Human Genetics. He is currently Professor of Medical Genetics at the University of Naples “Federico II” and Visiting Professor at Baylor College of Medicine in Houston, Texas. He won three times the 5 year-Advanced Grant of the European Research Council (ERC). In 2016, he won the Louis-Jeantet prize for Medicine. He is also Co-Founder of CASMA Therapeutics and serves as scientific advisor at Amplify Therapeutics. He is an EMBO member and former member of the EMBO council. He has authored over 400 publications in international peer-reviewed journals. The President of Italy conferred to him the Honorary Titles of “Commendatore” in 2007 and “Grande Ufficiale” of the Italian Republic in 2021. He is the 2025 winner of the Beth Levine, M.D. prize in Autophagy Research.



## Bruce Beutler, MD

*Director, Center for the Genetics of Host Defense; Regental Professor; Raymond and Ellen Willie Distinguished Chair in Cancer Research, UT Southwestern Medical Center*

Early in his career Bruce Beutler isolated mouse TNF to homogeneity and discovered its lethal inflammatory effects. He then created a reagent for the neutralization of TNF by fusing the TNF receptor to an IgG heavy chain. As Enbrel, this molecule found clinical use in millions of patients suffering from rheumatoid arthritis and other inflammatory diseases. Seeking to understand how TNF was induced by LPS, and more generally, how microbes of all kinds were sensed by the innate immune system, he used forward genetics to find the LPS receptor. He discovered that mutations in Toll-like receptor 4 (TLR4) completely prevented LPS signaling in mice and inferred that TLR4 was the signaling core of this receptor. He was awarded the Nobel Prize in Medicine for “studies related to the activation of innate immunity.”

Beutler used ENU mutagenesis to create thousands of new phenotypes in mice, principally affecting immunity but also metabolism and behavior. He invented a high-speed positional cloning platform known as automated meiotic mapping or AMM, which permits instantaneous determination of which mutation causes any observed phenotype. Using mutagenesis and AMM, he and his group created robust monogenic cancer resistance in mice. Some of the causative mutations indicate targets for drug discovery.



## Richard Flavell, PhD, FRS

*Sterling Professor of Immunobiology, Yale University*

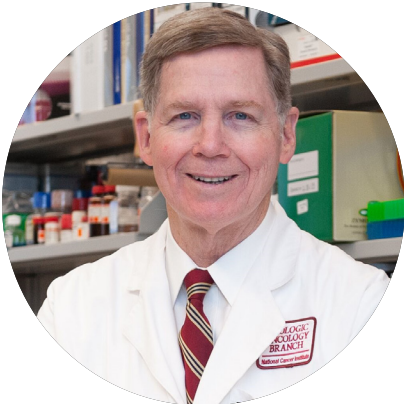
Professor Richard Flavell started his career in molecular biology. He was the first to perform reverse genetics in the early 1970s and was a co-discoverer of introns in eukaryotic genes in the late 1970s. Professor Flavell’s focus has been on genetic approaches in mice, beginning with some of the very first Immunology transgenesis experiments. A prevailing theme of his work has been the mechanisms of autoimmune disease. To study human autoimmune diseases in mice, since 2015 his lab has developed an entirely novel humanized mouse model capable of supporting a human immune system. This mouse strain has been re-engineered via a human/mouse homolog gene replacement strategy to physiologically express 8 human factors, enabling generation of a humanized adaptive and innate immune system. Compared to other existing humanized mouse models, these mice, named MISTRG6, have a functional adaptive immune system and more comprehensive innate immune system. These mice have been successfully used to model several aspects of human diseases (including infections, cancer, fibrosis, and hematopoiesis). Richard has published more than 1200 papers in peer reviewed journals, his H-index is 287, and he is the top cited immunologist in the USA and second most cited immunologist in the world.



## William Kaelin, MD

*Howard Hughes Medical Institute Investigator/Professor, Dana-Farber Cancer Institute*

William Kaelin is the Sidney Farber Professor of Medicine at Harvard Medical School and Dana-Farber Cancer Institute and a Howard Hughes Medical Institute Investigator. He obtained his clinical training in Internal Medicine at Johns Hopkins and in Medical Oncology at the Dana-Farber Cancer Institute before conducting postdoctoral work in David Livingston’s laboratory related to the RB tumor suppressor protein. Dr. Kaelin, who received the 2019 Nobel Prize in Physiology or Medicine, seeks to understand how, mechanistically, mutations affecting specific tumor-suppressor genes cause cancer in hopes of gaining new insights into normal physiology and laying the foundation for new precision oncology drugs.



## W. Marston Linehan, MD

*Chief, Urological Oncology Branch, National Cancer Institute*

Marston Linehan, Chief, Urologic Oncology Branch at the NCI, has had a long standing interest in studying the genetic basis of kidney cancer in patients and families as well as in the development of cell line, xenograft and genetically modified murine models to provide the foundation for the development of better methods of management, precision surgical care and targeted therapy for patients with localized, locally advanced and advanced disease.

# Faculty

## Mahul Amin, MD

*Vice President and Divisional Medical Director, LabCorp.,  
USC Keck School of Medicine, University of Tennessee Health  
Science Center*

## Andrea Ballabio, MD

*Professor, TIGEM*

## Javier Garcia Bermudez, PhD

*Assistant Professor, UT Southwestern Medical Center*

## Bruce Beutler, MD

*Director, Center for the Genetics of Host Defense; Regental  
Professor; Raymond and Ellen Willie Distinguished Chair in  
Cancer Research, UT Southwestern Medical Center*

## Alessandra Boletta, PhD

*Head of Unit, Ospedale San Raffaele*

## Michael Brehm, PhD

*Co-Director/Professor, University of Massachusetts*

## James Brugarolas, MD, PhD

*Director of the Kidney Cancer Program, UT Southwestern  
Medical Center*

## Thomas Carroll, PhD

*Professor, UT Southwestern Medical Center*

## Oriol Cassanovas, PhD

*Group Leader, Institut Català d’Oncologia*

## Yingbei Chen, MD, PhD

*Pathologist, Memorial Sloan Kettering Cancer Center*

## Ralph DeBerardinis, MD, PhD

*Professor, UT Southwestern Medical Center*

## Roy Elias, MD

*Assistant Professor, Johns Hopkins University*

## Annika Fendler, PhD

*Group Leader, Charité - University Hospital*

## Richard Flavell, PhD, FRS

*Sterling Professor of Immunobiology, Yale University*

## Giannicola Genovese, MD, PhD

*Associate Professor/Scientific Director, University of Texas  
MD Anderson Cancer Center*

## Eyal Gottlieb, PhD, MBA

*Vice President, Research, Division of Discovery Science,  
Professor and R.E. Bob Smith Distinguished Chair in Cancer  
Biology, University of Texas MD Anderson Cancer Center*

## Lorraine Gudas, PhD

*Professor/Chair, Weill Cornell Medicine*

## A. Ari Hakimi, MD

*Associate Professor, Urological Surgeon, Memorial Sloan  
Kettering Cancer Center*

## Lisa Henske, MD, PhD

*Director, Center for LAM Research and Clinical Care, Brigham  
and Women’s Hospital; Professor of Medicine, Harvard Medical  
School; Medical Oncologist, Dana-Farber Cancer Institute*

## David Hsu, MD, PhD

*Professor, Duke University*

## Hui Jiang, PhD

*Research Associate, Memorial Sloan Kettering Cancer Center*

## William Kaelin, MD

*Howard Hughes Medical Institute Investigator/Professor,  
Dana-Farber Cancer Institute*

## Payal Kapur, MD

*Professor of Pathology, UT Southwestern Medical Center*

## Keith Lawson, MD, PhD, FRCSC

*Scientist and Assistant Professor, University Health Network*

## W. Marston Linehan, MD

*Chief, Urological Oncology Branch, National Cancer Institute*

## Tamara Lotan, MD

*Professor, Johns Hopkins University*

## Srinivas Malladi, PhD

*Associate Professor, UT Southwestern Medical Center*

## Gabriel Malouf, MD, PhD

*Professor, Strasbourg University*

## Allison May, MD

*Assistant Professor, University of Virginia*

## Niki Zacharias Millward, PhD

*Associate Professor, University of Texas MD Anderson  
Cancer Center*

## Sanjeev Noel, PhD

*Assistant Professor of Medicine, Johns Hopkins University*

## Roberto Pili, MD

*Associate Dean for Cancer Research and Integrative Oncology;  
Chief, Division of Hematology/Oncology; Professor, Department  
of Medicine, University at Buffalo, Jacobs School of Medicine*

## Gopinath Prakasam, PhD

*Assistant Instructor, UT Southwestern Medical Center*

## Laura Schmidt, PhD

*Principal Scientist, Leidos Biomedical Research and National  
Cancer Institute*

## Sabina Signoretti, MD

*Professor of Pathology, Harvard Medical School/Dana-Farber  
Cancer Institute*

## Ramaprasad Srinivasan, MD, PhD

*Senior Investigator, National Cancer Institute*

## Xiankai Sun, PhD

*Professor, UT Southwestern Medical Center*

## Vanina Toffessi Tcheuyap, MS

*Senior Research Associate, UT Southwestern Medical Center*

## Sakari Vanharanta, MD, PhD

*Associate Professor, University of Helsinki*

## Lynda Vuong, PhD

*Scientific Research Lead, Memorial Sloan Kettering Cancer  
Center*

## Scott Welford, PhD

*Professor, University of Miami*

## Noelle Williams, PhD

*Research Professor, UT Southwestern Medical Center*

## Bingqing Xie, PhD

*Assistant Professor, UT Southwestern Medical Center*

## Yizheng Xue, MD, PhD

*Urological Surgeon, University of Pennsylvania*

## Chunling Yi, PhD

*Professor, Georgetown University*

## Tao Yue, PhD

*Assistant Professor, UT Southwestern Medical Center*

## Samir Zaidi, MD, PhD

*Assistant Professor, Yale University*

## Qing Zhang, PhD

*Professor, UT Southwestern Medical Center*



## 2025 IKCS: North America

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## 2026 IKCS: Europe

INTERNATIONAL KIDNEY  
CANCER SYMPOSIUM

16–18 April, 2026  
Paris, France



## 2026 IKCS: North America

INTERNATIONAL KIDNEY  
CANCER SYMPOSIUM

19–21 Nov., 2026  
Dallas, Texas

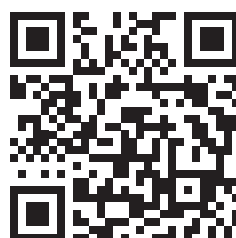


## KCA Awards Program

TRANSFORMING KIDNEY CANCER RESEARCH

KCA research awards have advanced critical studies in immunotherapy, helped identify new mechanisms for tumor suppression, shed light on rare forms of kidney cancer, and propelled talented early-career researchers to become leaders in the field today. These achievements have cemented the KCA's commitment to supporting groundbreaking research that benefits patients and families impacted by kidney cancer.

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Have questions or comments?  
Get in touch



**Salvatore La Rosa, PhD**  
*Chief Scientific Officer*

[SLAROSA@KIDNEYCANCER.ORG](mailto:SLAROSA@KIDNEYCANCER.ORG)

## Notes

## Notes



# KidneyCancerAssociation®

The Kidney Cancer Association is a global community dedicated to serving and empowering patients and caregivers, and leading change through advocacy, research, and education in order to be the universal leader in finding a cure for kidney cancer.

**KIDNEYCANCER.ORG**

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**HQ IN HOUSTON, TEXAS**



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