2019 SBUR ANNUAL MEETING November 7-10, 2019

NOVEL DISCOVERIES IN UROLOGY: BIG DATA TO MICROBIOME

New Orleans Downtown Marriott at the Convention Center 859 Convention Center Boulevard, New Orleans, LA





The Society for Basic Urologic Research (SBUR) was formed in 1986 and is the pre-eminent US-based urologic research society. Our members include molecular and developmental biologists, oncologists, immunologists, epidemiologists, andrologists, biochemists, bioinformaticians, and clinical urologic surgeon-scientists from academia, industry and government. SBUR scientists' expertise includes the study of urologic cancers (prostate, bladder, kidney, testis, penis), the biology of benign diseases of the prostate, bladder and kidney, developmental biology, kidney and bladder function, autoimmune urologic diseases, infectious diseases, neurourologic diseases, male reproductive biology, infertility and erectile dysfunction.

Our members are based around the globe, including in the United States, Europe and Asia. The active membership of SBUR includes 234 PhDs, 145 MDs, 39 MD/PhDs and 52 other Researchers.

The SBUR 2019 Annual Meeting entitled, "Novel Discoveries in Urology: Big Data to Microbiome" provides a unique environment to learn about the most recent advances in basic, translational and preclinical urologic research, in addition to providing a dynamic forum for discussing how these advances could be implemented for the prevention and treatment of urological diseases.

Much has been learned over the last decade regarding the molecular determinants and key pathways that regulate normal and disease processes, and a wide variety of novel therapeutic and diagnostic strategies have emerged as a result. Thus, this year's meeting will focus on a few areas that are emerging as the cutting-edge advances in urology, including:

- 1) Big data (genome, transcriptome, proteome, and metabolome) analysis that is driving the personalized and precision medicine initiative;
- 2) Endocrine and metabolic dysfunctions that have not been well studied in urologic diseases;
- 3) Immunology and immunotherapy that urology is lagging behind other fields;
- 4) Benign urologic disease that is the focus of several NIDDK-funded O'Brien centers and P20 programs;
- 5) Innovative technologies that have emerged in urologic research; and,
- 6) Microbiome and inflammation that are pushing forward our knowledge to a new level.

Target Audience

This meeting is intended to meet the needs of molecular and developmental biologists, oncologists, immunologists, epidemiologists, andrologists, biochemists, bioinformaticians, and clinical urologic surgeon-scientists.

Learning Objectives

Following completion of these educational programs, participants will know and be able to:

- Examine recent findings in studying the basic mechanisms of urologic diseases in the areas of transcriptome, genome and epigenome, metabolism, immunology, microbiome, therapeutics, and diagnostic/prognostic markers.
- Identify critical knowledge gaps and stimulate approaches to address them.
- Disseminate and facilitate novel discoveries in urologic diseases.
- Explain the cutting-edge advances in urological cancer therapeutics including mechanisms of resistance and novel approaches in overcoming resistance.
- Describe the outcomes of recent clinical trials on potential new drugs.
- Compare and discuss emerging clinical biomarkers for prostate cancer detection.
- Identify the new tools in analysis of big data generated from omics studies.
- Demonstrate the potential new targets in urological cancers.
- Discuss the novel technologies in urologic research.
- Update cancer immunology and immunotherapy in urological cancer field.
- Assess the role of microbiome and inflammatory microenvironment in malignant urologic diseases.
- Describe leukocytic phenotypes in BPH and how they contribute to disease progression.
- Recognize the importance of basic research in benign urologic disease.
- Recognize how therapeutic intervention targeted to the epigentics might be useful for the treatment of urological cancer.
- List tools essential for the successful training of young investigators for careers in urologic diseases and cancer.



2019 Accreditation Information

CME Credit Provided by AKH Inc., Advancing Knowledge in Healthcare. This activity is jointly provided by AKH Inc., Advancing Knowledge in Healthcare and Society for Basic Urologic Research, Inc.

Physicians

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of AKH Inc., Advancing Knowledge in Healthcare and Society for Basic Urologic Research, Inc. AKH Inc., Advancing Knowledge in Healthcare is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for Physicians.

AKH Inc., Advancing Knowledge in Healthcare designates this live activity for a maximum of **17.75 AMA PRA Category 1** *Credit(s)*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Physician Assistants

NCCPA accepts AMA PRA Category 1 Credit[™] from organizations accredited by ACCME.

Americans with Disabilities Act

Event Staff will be glad to assist you with any special needs (i.e. physical, dietary, etc.) Please contact the SBUR prior to the live event. Contact SBUR for privacy and confidentiality policy statement information at <u>sbur@affinity-strategies.com</u>

Acknowledgement

This activity is supported by an educational grants from Astellas, AstraZeneca, Pfizer, Bristol-Myers Squibb, and Merck & Co., Inc.

THANK YOU TO THE FOLLOWING PARTNERS FOR SPONSORING THE SBUR 2019 ANNUAL MEETING

AMERICAN UROLOGICAL ASSOCIATION, OFFICE OF EDUCATION & RESEARCH, INC. ASTRAZENECA ASTELLAS PFIZER MERCK & CO., INC. BRISTOL-MEYERS SQUIBB NIH NATIONAL CANCER INSTITUTE NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES TULANE UNIVERSITY



Welcome Colleagues and Friends!

Welcome to the Society for Basic Urologic Research (SBUR) 2019 Annual Meeting. We are thrilled to see you all here in beautiful New Orleans!

The SBUR is an organization that brings together basic science researchers and physician-scientists, who are engaged in basic and translational research in urological diseases. This meeting offers a valuable forum for interactions between the basic and clinical disciplines. It exposes bench scientists to clinical challenges, clinicians to scientific developments, and all attendees benefit from learning about the cutting-edge concepts and approaches to enhance their scientific knowledge. Clearly, such focused crosstalk very likely will lead to the rapid development of trans-disciplinary, translational and clinical projects that have enormous benefits to patient care.

The meeting will open with the Trainee Affairs Career Symposium on Thursday, November 7th, led by Drs. Larisa Nonn and Arun Sreekumar. After the Symposium, the annual meeting begins with a Keynote Session highlighting the Leland W.K. Chung Lecture, followed by six Plenary Sessions covering the following topics: 1) Big Data as Engines for Discovery; 2) Targeting Endocrine and Metabolic Dysfunctions; 3) Immunology and Immunotherapy; 4) Targeting Benign Urologic Disease; 5) Innovative Technologies in Urology; and, 6) Microbiome and Inflammation.

We would like to thank the SBUR 2019 Annual Meeting Faculty members as well as Program Committee members for their invaluable assistance in planning this meeting. We are also very grateful for the continued support of Trainee Travel Awards from the National Institute of Health (NIH), National Cancer Institute (NCI) and National Institute of Diabetes and Digestive Kidney Diseases (NIDDK). An unprecedented number of abstract submissions were received this year and we would like to give special thanks to Dr. Jindan Yu for her leadership as Chair of the Abstracts Travel Award Selection (ATAS) Committee.

Thanks again for joining us at the New Orleans Downtown Marriott at the Convention Center. We hope you enjoy vibrant New Orleans and you find the presentations and discussions during our scientific program to be helpful and meaningful for your research and collaborations back home.

Allen C. Gao, MD, PhD President, SBUR

Longhond. Jour

Zongbing You, MD, PhD Chair, 2019 Annual Meeting Program Committee



TABLE OF CONTENTS

CME Information pg	07
SBUR Committees pg	08
Award Winnerspg	10
Faculty Listingpg	12
Thursday Schedulepg	14
Friday Schedule pg	16
Saturday Schedulepg	19
Sunday Schedulepg	22
Travel Award Podium Presentationspg	24
Poster Session 1 pg	32
Poster Session 2 pg	44
New Orleans Marriott Hotel Informationpg	55
2020 SBUR Meetings pg	56



GENERAL INFORMATION

Registration Hours

Fleur de Lis Foyer Thursday, November 7	2:00nm 9:20nm
Friday, November 8	
Saturday, November 9	7:00am–6:00pm
Sunday, November 10	7:00am–12:00pm
General Session	
Blaine Kern Ballroom	
Thursday, November 7	3:00pm–8:00pm
Friday, November 8	8:00am–5:15pm
Saturday, November 9	8:00am–5:00pm
Sunday, November 10	8:00am–12:00pm
Trainee Affairs Career Symposium	
Blaine Kern Ballroom	
Thursday, November 7	3:00pm–5:00pm
Lunch	
River Bend Ballroom	
Friday, November 8	12:00pm–1:30pm
Saturday, November 9	12:30pm–2:00pm
Evening Events	
Blaine Kern Ballroom Foyer, Blaine Kern Ballroom, Magnolia, Fleur de Lis	
Thursday, November 7	•
	8:00pm–9:00pm
Friday, November 8	Poster Session 1
	5:15pm–7:15pm
Friday, November 8	Trainee Affairs Dinner
	7:15pm
	At Registered Attendee's Expense.
	Attendees MUST visit Registration Desk
	to RSVP and receive restaurant
	assignment.
Saturday, November 9	Poster Session 2
	5:00pm–7:00pm



Criteria for Success

Statements of credit will be awarded based on the participant's attendance and submission of the online activity evaluation form. Upon submission of the evaluation form, a certificate will generate for printing and a copy is sent to your email address. Please click the link below to access the evaluation.

akhcme.com/akhcme/pages/sbur

Please claim your credit by December 15, 2019

If you have questions about this CME activity, please contact AKH Inc. at jgoldman@akhcme.com.



CME Credit Provided by AKH Inc., Advancing Knowledge in Healthcare. This activity is jointly provided by AKH Inc., Advancing Knowledge in Healthcare and Society for Basic Urologic Research, Inc.

Physicians

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of AKH Inc., Advancing Knowledge in Healthcare and Society for Basic Urologic Research, Inc. AKH Inc., Advancing Knowledge in Healthcare is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for Physicians. AKH Inc., Advancing Knowledge in Healthcare designates this live activity for a maximum of 17.75 AMA PRA Category 1 Credit(s)[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Physician Assistants

NCCPA accepts AMA PRA Category 1 Credit[™] from organizations accredited by ACCME.

Commercial Support

This activity is supported by an educational grant from Astellas, AstraZeneca, Pfizer, Bristol-Myers Squibb, and Merck & Co., Inc.

Disclosures

It is the policy of AKH Inc. to ensure independence, balance, objectivity, scientific rigor, and integrity in all of its continuing education activities. The author must disclose to the participants any significant relationships with commercial interests whose products or devices may be mentioned in the activity or with the commercial supporter of this continuing education activity. Identified conflicts of interest are resolved by AKH prior to accreditation of the activity and may include any of or combination of the following: attestation to non-commercial content; notification of independent and certified CME/CE expectations; referral to National Author Initiative training; restriction of topic area or content; restriction to discussion of science only; amendment of content to eliminate discussion of device or technique; use of other author for discussion of recommendations; independent review against criteria ensuring evidence support recommendation; moderator review; and peer review.



SBUR 2019 Committees

A large part of our success is a direct result of the incredible work of our committees. If you are interested in learning more about our various committees or participating on a committee, please email sbur@affinity-strategies.com

Abstracts and Travel Award Selection (ATAS) Committee

Jindan Yu, PhD (Chair) Zongbing You, MD, PhD (2019 Chair) Scott Dehm, PhD (2020 Chair) Jaoti Huang, PhD David S. Rickman, PhD Daniel E Frigo, PhD David Degraff, PhD Karen Sfanos, MS, PhD David Goodrich, PhD Jill A Macoska, PhD Jelani Zarif, MS, PhD

Advocacy Committee (Ad Hoc)

Magda Grabowska (Chair) Travis Jerde, PhD (SBUR Secretary) EC member (2019)

AUA Research Council Representatives

Allen Gao, MD, PhD, President (2020) Rosalyn Adam, PhD, Vice President Ganesh Raj, MD, Past President

Awards Committee (Ad Hoc)

Natasha Kyprianou (Chair) Anna Woloszynska-Read Douglas Strand Amina Zoubeidi Yan Dong

By-Laws Committee

Christina Jamison (Chair) David Degraff Hannah Heemers Paramita Ghosh Donald Vander Griend

Annual Meeting Program Committee

Zongbing You, MD, PhD (2019 Chair) Scott Dehm, PhD (2020 Chair) Jindan Yu, PhD (2021 Chair) Marc Cox, PhD (2018 Chair, Advisor) Amina Zoubeidi, PhD Christina A.M Jamieson, PhD Zhou Wang, PhD Hari K. Koul, MSC, PhD, FASN Rosalyn Adam, PhD Allen Gao, MD, PhD, President, ex officio Ganesh Raj, MD, PhD, Past President, ex officio

Finance Committee

Shawn Lupold, PhD, Treasurer (Chair) Rosalyn Adam, PhD, Vice President Jindan Yu Chad Vezina Zhou Wang

Mission Urosciences Committee (2018-2019)

Timothy L. Ratliff, PHD (Chair) Allen C. Gao, MD, PhD Ralph Buttyan, PhD Leland W.K. Chung, PhD Michael R. Freeman, PhD Travis J. Jerde, PhD Hari K. Koul, MSC, PhD, FACN Natasha Kyprianou, PhD Vinata B. Lokeshwar, PhD Gail S. Prins, PhD Ganesh V. Raj, MD, PhD Jindan Yu, PhD

Coffey Award Committee

Leland W.K. Chung, PhD Ganesh Raj, MD, PhD Natasha Kyprianou, PhD Ken Pienta, MD Scott Dehm, PhD



SBUR 2019 Committees

Industry Relations/Fundraising Committee (Ad Hoc)

Allen Gao, MD, PhD, EC Member (Chair) Marc Cox, PhD (2018 Fall Program Chair) Zongbing You, MD, PhD (2019 Fall Chair) Natasha Kyprianou, PhD (to 2018) David Jarrard Isaac Kim, MD, PhD (to 2018) Ganesh Raj, MD ex officio EC Member Mehdi Mollapour Jun Luo, PhD

Media/Website Committee (Ad Hoc)

Magda Grabowska (Chair) Bethany Kerr (Vice Chair) Minhaj Siddiqui Tanya Stoyanova Karen Sfanos Dan Frigo Jenn Doll

Membership Committee

Travis Jerde, PhD (SBUR Secretary) EC member (2019) Scott Dehm, PhD Benyi Li, MD, PhD (2019) Xiaoqi Liu, PhD Anna Malykhina, PhD, Chair (2019) Magaly Martinez-Ferrer, PhD Shailesh Singh, PhD Praveen Thumbikat, PhD Li Xin, PhD Xiaolin Zi, PhD Minhaj Siddiqui Chris Barbieri Sanjay Gupta

Nominating Committee

Ganesh Raj, MD, Past President (Chair) JT Hsieh (2020) Justin Drake, PhD (2019) Leigh Ellis, PhD (2019) Laura Pascal, PhD (2019) Zongbing You (2020)

Program Committee - Spring 2019 Meeting

Rosalyn Adam, PhD (Chair) Leigh Ellis, PhD Madga Grabowska, PhD Thomas Griffith, PhD Laura Lamb, PhD Ganesh Raj, MD, PhD (Past President)

Trainee Affairs Committee (Ad Hoc)

Larisa Nonn (Chair) Arun Sreekumar, Co-Chair (2020 Chair) Sean Li, Faculty (2020 Co-Chair) Tara McCray, Trainee-student Tariq Khemees, Trainee-MD Renee Vickman, Trainee-Postdoc Alan Lombard, Trainee-Postdoc Leigh Ellis, Faculty

Publications Committee

Natasha Kyprianou, PhD Simon Hayward, PhD Thomas S. Griffith, PhD Tanya Stoyanova, PhD David J. DeGraff, PhD Ralph Buttyan, PhD Hari Koul, PhD Roberto Pili, PhD Mehdi Mollapour, PhD Dale Bjorling, PhD Vinata Lokeshwar, PhD Gail Prins, PhD Dorris Lamb, PhD Carol Podlasek, PhD Margot Damaser, PhD Jindan Yu, PhD Arun Sreekumar, PhD Sean Li, PhD Joshua Mauney, PhD Ganesh Raj, MD, PhD Isaac Kim, MD, PhD K.C Balaji, MD Benyi Li, MD, PhD James L. Mohler, MD Tom F. Lue, MD



Congratulations to the 2019 SBUR Award Winners

Distinguished Service Award

Presented annually at the Fall Meeting, this award recognizes a member who has helped SBUR with his/her services and/or influences.

Gail S. Prins, PhD

University of Illinois at Chicago

Meritorious Achievement Award

Presented annually at the Fall Meeting, this award recognizes a researcher (can be a clinician researcher) who has made exceptional contributions in the field of urologic research.

Dan Theodorescu, MD, PhD

Cedar-Sinai

SWIU/SBUR Award for Excellence in Urologic Research

SWIU and SBUR have a common interest in recognizing female scientists with an accomplished background of basic science urologic research. The award represents the collaborative efforts of these two societies toward their common goal.

Kerry L. Burnstein, PhD

University of Miami

Young Investigator Award Recipients

The SBUR Young Investigator Awards are presented at the Fall Meeting to SBUR members under the age of 45, within 5 years of their first faculty position, who have made significant contributions to urologic research.

Ping Mu, PhD

UT Southwestern

Bethany Kerr, PhD Wake Forest University

Andrew Goldstein, PhD UCLA

Eula and Donald S. Coffey Innovative Research Award Finalists

The Eula and Donald S. Coffey Innovative Research Award will be presented to the most innovative abstract at the SBUR Fall Annual Meeting. The top 3 finalists are asked to give a brief oral presentation of their research findings to open the Awards Presentations. The winner will be announced at the Saturday Awards Ceremony.

John K. Lee, MD, PhD Fred Hutchinson Cancer Research Center

Xin Lu, PhD University of Notre Dame

Salma Kaochar, PhD Baylor College of Medicine



Travel Award Winners

A primary goal of SBUR is to provide travel grants/stipends to researcher trainees. These grants support travel to/from the Fall Annual Meeting. Award recipients must be SBUR members and a recipient is not allowed to receive the award in two consecutive years.

Diya Binoy Joseph UT Southwestern Medical Center

Ka-Wing Fong Northwestern University

Wanting Han University of Massachusetts Boston

Petra Popovics University of Wisconsin-Madison

Ahmed A. Moustafa Tulane University

Teresa T Liu University of Wisconsin- Madison

Nicholas Brady Weill Cornell Medicine

Jenna M. Buckwalter Penn State Hershey College of Medicine

Cameron Armstrong UC Davis **Dongxia Ge** Tulane University

Liang Wang University of California, Los Angeles

Sarah Kohrt Case Western Reserve University

Mathilde Bonnemaison University of Massachusetts Boston

Yang Yi Northwestern University

Anindita Ravindran Baylor College of Medicine

Elena Beketova Purdue University

Victor Pham University of California, Irvine

Qin Gao University of Texas at El Paso

Shih-Bo Huang University of Texas Health Science Center at San Antonio

Praveen Kumar Jaiswal Louisiana State University Health Science Center-Shreveport



Thank You to the 2019 SBUR Distinguished Faculty

Larisa Nonn, PhD Trainee Affairs Committee Chair University of Illinois at Chicago Chicago, IL

Arun Sreekumar, PhD Trainee Affairs Committee Co-Chair Baylor College of Medicine Houston, TX

Allen Gao, MD, PhD SBUR President University of California at Davis Davis, CA

Zongbing You, MD, PhD Tulane University New Orleans, LA

Travis J. Jerde, PhD Indiana University Indianapolis, IN

Arul M. Chinnaiyan, M.D., Ph.D. University of Michigan Ann Arbor, MI

Oliver Sartor, MD Tulane University New Orleans, LA

Chang-Deng Hu, MD, PhD Purdue University West Lafayette, IN

Jindan Yu, PhD Northwestern University Chicago, IL

Sooryanarayana Varambally, PhD University of Alabama-Birmingham Birmingham, AL

Vinata B. Lokeshwar, PhD Augusta University Augusta, GA

Shawn E. Lupold, PhD Johns Hopkins Hospital Baltimore, MD Kaifu Chen, PhD

Houston Methodist Houston, TX

Rosalyn Adam, PhD SBUR Vice President Boston Children's Hospital and Harvard Medical School Boston, MA

Qianben Wang, PhD Duke University Durham, NC

Gail S. Prins, PhD University of Illinois at Chicago Chicago, IL

Benyi Li, MD, PhD University of Kansas Medical Center Kansas, KS

Hsing-Jien Kung, PhD Taipei Medical University Taiwan, ROC

Jiaoti Huang, MD, PhD Duke University Durham, NC

Hari K. Koul, MSC, PhD, FASN Louisiana State University Health Science Center-Shreveport Shreveport, LA

Yun Qiu, PhD University of Maryland Baltimore, MD

Carolyn Best, PhD American Urological Association Linthicum, MD

Joel B. Nelson, MD University of Pittsburgh Pittsburgh, PA

Timothy L. Ratliff, PhD Purdue University Center for Cancer Research West Lafayette, IN



Yan Dong, PhD Tulane University New Orleans, LA

William Ricke, PhD University of Wisconsin School of Medicine and Public Health Madison, WI

Indira U. Mysorekar, PhD Washington University St. Louis, MO

Simon W. Hayward, PhD NorthShore University HealthSystem Evanston, IL

Sanjay Gupta, Ph.D. Case Western Reserve University Cleveland, OH

Li Jia, PhD Brigham and Women's Hospital Boston, MA

Asim B. Abdel-Mageed, DVM, PhD Tulane University New Orleans, LA

Joshua J. Meeks, MD, PhD Northwestern University Chicago, IL

Ganesh V. Raj, MD, PhD Immediate Past SBUR President UT Southwestern Medical Center Dallas, TX

Amina Zoubeidi, PhD University of Vancouver Vancouver, British Columbia, Canada

Michelle Downes MB BCh BAO, MRCSI, MD, FRCPC Sunnybrook Health Sciences Centre Toronto, ON, Canada

Tamara Bavendam, MD NIDDK/NIH Bethesda, MD

Jonathan Barasch, MD, PhD Columbia University O'Brien Center New York, NY **Zhou Wang, PhD** University of Pittsburgh Pittsburgh, PA

Thomas Chi, MD (PI: P20 Program) University of California at San Francisco San Francisco, CA

Marc B. Cox, MSPH, PhD University of Texas at El Paso El, Paso, TX

Paramita Mitra Ghosh, PhD University of California at Davis Davis, CA

Karen S. Sfanos, Ph.D. Johns Hopkins Hospital Baltimore, MD

Angelo M. De Marzo, MD, PhD Johns Hopkins Hospital Baltimore, MD

Michael A. Liss, MD University of Texas Health Science Center San Antonio, TX

Zoran Culig, MD Innsbruck Medical University Innsbruck, Austria

Praveen Thumbikat, PhD Northwestern University Chicago, IL

Jin Zeng, MD, PhD The First Affiliated Hospital of Xi'an Jiaotong University Xi'an, China

Wade Bushman, M.D., Ph.D. University of Wisconsin Medical School Madison, WI

Jill A. Macoska, PhD University of Massachusetts Boston Boston, MA

Xiaoqi Liu, PhD University of Kentucky Lexington, KY





JOIN US IN NEW ORLEANS!

2019 SBUR ANNUAL MEETING NOVEL DISCOVERIES IN UROLOGY: BIG DATA TO MICROBIOME November 7–10

Thursday Schedule

2:00pm–8:30pm	Registration	
3:00pm–5:00pm	Trainee Affairs Career Symposium	Larisa Nonn, PhD Trainee Affairs Committee Chair University of Illinois at Chicago Chicago, II
		Chicago, IL Arun Sreekumar, PhD Trainee Affairs Committee Co-Chair Baylor College of Medicine Houston, TX

Career Symposium Speaker:

Group 1 Laura Pascal, PhD Research Assistant Professor University of Pittsburgh	Group 2 Magda Grabowska, PhD Assistant Professor Case Western Reserve University	Group 3 Gail Prins, PhD Professor University of Illinois at Chicago Chicago, IL	Group 4 Tamara Bavendam, MD <i>NIDDK/NIH</i> <i>Bethesda, MD</i>
Pittsburgh, PA Trivia Frazier, PhD President and CEO Obatala Sciences, Inc	Cleveland, OH Tim Ratliff, PhD Professor Purdue University West Lafayette, IN	Moray Campbell, PhD Associate Professor Ohio State Comprehensive Cancer Center Columbus, OH	Larisa Nonn, PhD University of Illinois at Chicago Chicago, IL Chad Vezina, PhD
New Orleans, LA	Adam Murphy, MD Assistant Professor Northwestern University Chicago, IL	Columbus, On	University of Wisconsin at Madison Madison, WI



Thursday Schedule

-		
6:00pm–6:10pm	Welcome & Introductory Remarks	Allen Gao, MD, PhD SBUR President University of California at Davis Davis, CA
6:10pm–8:00pm	Keynote Session	Discussion Leaders: Zongbing You, MD, PhD Tulane University New Orleans, LA
		Travis J. Jerde, PhD Indiana University Indianapolis, IN
6:10pm–7:10pm	Leland W.K. Chung Lecture	 Fast, Furious, and Loud: The Role of FOXA1 in Prostate Cancer Progression Arul M. Chinnaiyan, M.D., Ph.D. Director, Michigan Center for Translational Pathology S.P. Hicks Endowed Professor of Pathology and Urology American Cancer Society Research Professor Investigator, Howard Hughes Medical Institute Comprehensive Cancer Center University of Michigan Ann Arbor, MI

Arul M. Chinnaiyan, M.D., Ph.D. is a Howard Hughes Medical Institute Investigator, American Cancer Society Research Professor, and S.P. Hicks Endowed Professor of Pathology and Urology at the University of Michigan. He is also a member of the University of Michigan Rogel Cancer Center. He is the founding Director of the Michigan Center for Translational Pathology (MCTP) which is comprised of a multidisciplinary team of investigators focused on translating "-Omic" technologies to patient care in terms of biomarkers and novel therapeutics. He has co-authored over 450 manuscripts and has been designated an A. Alfred Taubman Medical Research Institute Scholar, is an elected member of the American Academy of Arts and Sciences (AAAS), the National Academy of Medicine, the Association of American Physicians (AAP), the American Society for Clinical Investigation (ASCI), and the National Academy of Inventors (NAI). He serves on the Board of Scientific Advisors for the National Cancer Institute.

In addition to receiving his undergraduate degree and medical training at Michigan, he received his Ph.D. in Pathology and has made seminal contributions to the understanding of the molecular mechanisms of how cells die (a process called apoptosis). Dr. Chinnaiyan has received a number of awards including the Basic Science Research Award awarded by the University of Michigan Medical School Dean's Office, the AMGEN Outstanding Investigator Award, the Pew Biomedical Scholar Award, the Burroughs Welcome Foundation Award in Clinical Translational Research, the 2006 Benjamin Castleman Award, the 2007 Ramzi Cotran Young Investigator Award and was recently appointed as an Investigator of the Howard Hughes Medical Institute. Dr. Chinnaiyan was also elected as a member of the American Society of Clinical Investigation and the Association of American Physicians.

7:10pm–7:25pm

Discussion



Thursday Schedule

7:25pm–7:50pm	Prostate Cancer Update 2019: From Genetics to Clinical Trials	Oliver Sartor, MD Tulane University New Orleans, LA
7:50pm–8:00pm	Discussion	
8:00pm–9:00pm	Welcome Reception and Networking	

Friday Schedule

8:00am–12:00pm	Plenary Session I:	Discussion Leaders:
-	Big Data as Engines for Discovery	Chang-Deng Hu, MD, PhD
		Purdue University
		West Lafayette, IN
		Jindan Yu, PhD
		Northwestern University
		Chicago, IL
8:00am–8:20am	UALCAN: an Integrated Data Mining	Sooryanarayana Varambally, PhD
	Platform for Comprehensive Analysis of	University of Alabama-Birmingham
	Cancer Transcriptome and Novel Target	Birmingham, AL
	Discovery	
8:20am–8:30am	Discussion	
8:30am–8:50pm	Molecular Subtypes Chase in	Vinata B. Lokeshwar, PhD
	Bladder Cancer	Augusta University
		Augusta, GA
8:50am–9:00am	Discussion	
9:00am–9:20am	The Role of miR-21 in Prostate Cancer	Shawn E. Lupold, PhD
	Development and Progression	Johns Hopkins Hospital
		Baltimore, MD
9:20am–9:30am	Discussion	
9:30am–9:40am	Travel Award Presentation #1:	Elena Beketova
	PRMT5 as a Novel Target for	Purdue University
	the Treatment of Castration-	West Lafayette, IN
	Resistant Prostate Cancer	·
9:40am–9:45am	Discussion	
9:45am-10:00am	Break	



Friday Schedule

10:00am–10:20am	Epigenetic Landscape Reveals Druggable Driver Genes for Tumorigenesis	Kaifu Chen, PhD Houston Methodist Houston, TX
10:20am–10:30am	Discussion	
10:30am–10:40am	Travel Award Presentation 2: N-Myc-mediated Epigenetic Reprogramming Drives Lineage Plasticity in Advanced Prostate Cancer	Nicholas Brady, PhD Weill Cornell Medicine New York, NY
10:40am–10:45am	Discussion	
10:45am–11:05am	Probing the Transcriptional Landscape of the Bladder Following Spinal Cord Injury	Rosalyn Adam, PhD SBUR Vice President Boston Children's Hospital and Harvard Medical School Boston, MA
11:05am–11:15am	Discussion	
11:15am–11:35am	Epigenomic Approaches to Discover Transcriptional Vulnerabilities of Prostate Cancer	Qianben Wang, PhD Duke University Durham, NC
11:35am–11:45am	Discussion	
11:45am–11:55am	Travel Award Presentation 3: Site Specific DNA Methylation Silences Forkhead Box A1 Expression in Advanced Bladder Cancer	Jenna M. Buckwalter, PhD Penn State College of Medicine Hershey, PA
11:55am–12:00pm	Discussion	
12:00pm–1:30pm	Lunch	
1:30pm–5:15pm	Plenary Session II: Targeting Endocrine and Metabolic Dysfunctions	Discussion Leaders: Gail S. Prins, PhD University of Illinois at Chicago Chicago, IL
		Benyi Li, MD, PhD University of Kansas Medical Center Kansas, KS
1:30–1:50pm	Targeting Metabolic Addiction of Prostate Cancer	Hsing-Jien Kung, PhD Taipei Medical University Taiwan, ROC
1:50pm–2:00pm	Discussion	



Friday Schedule

2:00pm–2:20pm	Hormonal Therapy for Prostate Cancer: Metabolic Changes as the Molecular Basis of Treatment Response and Failure	Jiaoti Huang, MD, PhD Duke University Durham, NC
2:20pm–2:30pm	Discussion	
2:30pm–2:50pm	PDEF Alters the Enhancer Landscape to Promote Prostate Luminal Differentiation	Hari K. Koul, MSC, PhD, FASN Louisiana State University Health Science Center- Shreveport Shreveport, LA
2:50pm–3:00pm	Discussion	
3:00pm–3:10pm	Travel Award Presentation #4: Identification of a Novel PRC2 Complex as a Therapeutic Target in Castration Resistant Prostate Cancer	Ka-Wing Fong, PhD Northwestern University Chicago, IL
3:10pm–3:15pm	Discussion	
3:15pm–3:30pm	Break	
3:30pm–3:50pm	The Role of Crosstalk between AR and E2F in Prostate Cancer Therapeutic Resistance	Yun Qiu, PhD University of Maryland Baltimore, MD
3:50pm–4:00pm	Discussion	
4:00pm–4:20pm	Polo-like Kinase 1: From Cell Biology to Cancer Therapeutics	Xiaoqi Liu, PhD University of Kentucky Lexington, KY
4:20pm–4:30pm	Discussion	
4:30pm–4:40pm	Travel Award Presentation #5: A Preclinical Study of the Combination Treatment of High-dose Testosterone and CDK4/6 Inhibitors in CRPC	Wanting Han University of Massachusetts Boston Boston, MA
4:40pm–4:45pm	Discussion	
4:45pm–4:55pm	Travel Award Presentation #6: Targeting Steroid Sulfatase with Novel Inhibitors Suppresses CRPC Tumor Growth and Improves Response to Enzalutamide	Cameron Armstrong, PhD University of California Davis Davis, CA
4:55pm–5:00pm	Discussion	



Friday Schedule

Urologic Research Support	American Urological Association
Opportunities	Linthicum, MD
Poster Session #1	
Evening on Own	
Trainee Affairs Group Dinner	
	Poster Session #1 Evening on Own

Saturday Schedule

8:00am–10:00am	Plenary Session III: immunology and Immunotherapy	Discussion Leaders: Marc B. Cox, MSPH, PhD University of Texas at El Paso El Paso, TX	
		Amina Zoubeidi, PhD University of Vancouver Vancouver, British Columbia, Canada	
8:00am–8:50am	AUA Lecture	Prostate Cancer Revisited Joel B. Nelson, MD University of Pittsburgh Pittsburgh, PA	



Joel B. Nelson received a BA in Philosophy at the University of Pittsburgh in 1983. He received his medical degree in 1988 and completed his urology residency in 1994, both at Northwestern University Medical School. He was awarded an American Foundation for Urological Disease Scholarship for fellowship training in basic research and oncology at the Brady Urological Institute at Johns Hopkins from 1994 to 1996. After joining the faculty of the Department of Urology at Johns Hopkins in 1996, Dr. Nelson was named the Director of Urological Oncology at Johns Hopkins Bayview Medical Center. In 1999, Dr. Nelson was appointed the first Frederic N. Schwentker Professor and first Chairman of the newly formed Department of Urology at the University of Pittsburgh School of Medicine. Under his leadership, the Department has grown from five to over 40 full-time faculty members, with a several-fold increase in clinical volumes and research funding, placing it in the top ten for NIH funding. Dr. Nelson's area of clinical interest is focused on prostate cancer and he has performed over 3300 radical prostatectomies. His research interest has been on novel treatments for advanced prostate cancer. Dr. Nelson has over 220 publications and chapters and is a member of several editorial boards. He is the member of the American Association of Genitourinary Surgeons, the Clinical Society of Genitourinary Surgeons and is a Trustee of the American Board of Urology. Dr. Nelson is the recipient of many clinical and basic science awards. In October 2014, he was appointed Senior Medical Director of the University of Pittsburgh Physicians and in January 2017, Chief Clinical Officer, Health Services Division, UPMC.

8:50am–9:00am

Discussion



Saturday Schedule

9:00am–9:20am	Defining Inflammation in BPH	Timothy L. Ratliff, PhD Purdue University Center for Cancer Research West Lafayette, IN
9:20am–9:30am	Discussion	
9:30am–9:50am	Bladder Cancer, Inflammation and PD- L1: Where Are We Now?	Michelle Downes, MB BCh BAO, MRCSI, MD, FRCPC Sunnybrook Health Sciences Centre Toronto, ON, Canada
9:50am–10:00am	Discussion	
10:00am–10:15am	Break	
10:15am–12:45pm	Plenary Session IV: Targeting Benign Urologic Disease	Discussion Leaders: Rosalyn Adam, PhD SBUR Vice President Boston Children's Hospital and Harvard Medical School Boston, MA
		Yan Dong, PhD Tulane University New Orleans, LA
10:15am–10:30am	NIDDK Support of Basic Research for Benign Urologic Conditions	Tamara Bavendam, MD NIDDK/NIH Bethesda, MD
10:30am–10:45am		William Ricke, PhD Director, O'Brien Center for Benign Urologic Research University of Wisconsin School of Medicine and Public Health Madison, WI
10:45am–11:00am		Jonathan M. Barasch, MD, PhD Columbia University O'Brien Center New York, NY
11:00am–11:15am		Zhou Wang, PhD Director, O'Brien Urology Research Center University of Pittsburgh Pittsburgh, PA
11:15am–11:30am	Discussion	



Saturday Schedule

11:30am–11:45am	Mechanisms of Age-associated Immune Dysfunction in the Post-menopausal Bladder	Indira U. Mysorekar, PhD Washington University St. Louis, MO
11:45am–12:00pm	ReSKU: an Automated Nephrolithiasis Registry as a Community Research Tool	Thomas Chi, MD University of California at San Francisco San Francisco, CA
12:00pm–12:15pm	Leukocytic Phenotypes Associated with BPH Progression	Simon W. Hayward, PhD NorthShore University HealthSystem Evanston, IL
12:15pm–12:30pm	Discussion	
12:30pm–2:00pm	Lunch	
2:00pm–3:45pm	Plenary Session V: Innovative Technologies in Urology	Discussion Leaders: Ganesh V. Raj, MD, PhD Immediate Past SBUR President UT Southwestern Medical Center Dallas, TX
		Paramita Mitra Ghosh, PhD University of California at Davis Davis, CA
2:00pm–2:20pm	Combining Tissue Histomorphometry and Biomarkers for Precise Prediction of Prostate Cancer Recurrence	Sanjay Gupta, Ph.D. Case Western Reserve University Cleveland, OH
2:20pm–2:30pm	Discussion	
2:30pm–2:50pm	PARP Inhibitors in Prostate Cancer Treatment — Beyond DNA Repair	Li Jia, PhD Brigham and Women's Hospital Boston, MA
2:50pm–3:00pm	Discussion	
3:00pm–3:20pm	Repurposed Drugs Targeting Exosomes as Adjuvant Therapies for Prostate Cancer	Asim B. Abdel-Mageed, DVM, PhD Tulane University New Orleans, LA
3:20pm–3:30pm	Discussion	



Saturday Schedule

3:30pm-3:40pm



Travel Award Presentation #7: Identification of Cognate Proximal Cell Types of the Mouse and Human Prostate and Their Enrichment in Human Benign Prostatic Hyperplasia Diya Binoy Joseph, PhD UT Southwestern Medical Center Dallas, TX

	Hyperplasia	
3:40pm–3:45pm	Discussion	
3:45pm–4:00pm	Break	
4:00pm–4:30pm	Awards Presentation	
	Coffey Research Award Presentations	
	Travel Awards	
	Young Investigator Awards	
	SWIU/SBUR Award	
	Distinguished Service Award	
	Meritorious Achievement Award	
	Coffey Research Award Winner	
4:30pm–5:00pm	SBUR Annual Business Meeting	Members Only
5:00pm–7:00pm	Poster Session #2	
7:00pm	Evening on Own	

Sunday Schedule

8:00am–12:00pm	Plenary Session VI:	Discussion Leaders:
-	Microbiome and Inflammation	Karen S. Sfanos, Ph.D.
		Johns Hopkins Hospital
		Baltimore, MD
		Praveen Thumbikat, PhD
		Northwestern University
		Chicago, IL
8:00am–8:20am	International Speaker	Jin Zeng, MD, PhD
	The New Role of PrLZ in Prostate	Department of Urology
	Cancer by Regulating Autophagy	The First Affiliated Hospital
		Xi'an Jiaotong University, Xi'an, China
3:20am–8:30am	Discussion	
8:30am–8:50am	The Inflammatory Microenvironment	Angelo M. De Marzo, MD, PhD
	and Microbiome in Prostate Cancer	Johns Hopkins Hospital
		Baltimore, MD
8:50am–9:00am	Discussion	



Sunday Schedule

9:00am–9:20am	Microbiome Interactions with	Michael A. Liss, MD
	Localized Prostate Cancer	University of Texas Health Science Cente San Antonio, TX
9:20am–9:30am	Discussion	
9:30am–9:50am	Prostate inflammation, Microbiome	Wade Bushman, M.D., Ph.D.
	and Koch's Postulates	University of Wisconsin Medical School Madison, WI
9:50am–10:00am	Discussion	
10:00am–10:10am	Break	
10:10am–10:30am	Inflammation and Lower Urinary Tract	Jill A. Macoska, PhD
	Function: a Volatile Relationship	The University of Massachusetts Boston Boston, MA
10:30am–10:40am	Discussion	
10:40am–11:00am	Strategies to Inhibit Androgen	Zoran Culig, MD
	Receptor and STAT3 Signaling in	Innsbruck Medical University
	Prostate Cancer	Innsbruck, Austria
11:00am–11:10am	Discussion	
11:10am–11:30am	Navigating Immunotherapy	Joshua J. Meeks, MD, PhD
	Responses in Bladder Cancer: From	Northwestern University
	Mice to Men	Chicago, IL
11:30am–11:40am	Discussion	
11:40am–11:50am	Travel Award Presentation	Petra Popovics, PhD
	¥ #8:	University of Wisconsin–Madison
	Osteopontin Exacerbates the	Madison, WI
	レンシン Inflammatory Environment in the Prostate	
11:50am–11:55am	Discussion	
11:55am–12:00pm	Farewell	
-		



2019 Travel Awardees — Podium Presentations

Friday, November 9, 2019 9:30 – 9:40 a.m. Travel Award Presentation #1: PRMT5 as a Novel Target for the Treatment of Castration-resistant Prostate Cancer Elena Beketova Purdue University West Lafayette, IN

Background:

Emergence of castration-resistant prostate cancer (CRPC) after androgen deprivation therapy (ADT) is one of the biggest challenges in prostate cancer therapy. Androgen receptor (AR) reactivation via various mechanisms is the driver of the ADT resistance. Current CRPC therapies that target AR signaling are not curative and only prolong survival by 4-5 months. Thus, the development of novel approaches for CRPC treatment is in urgent need. Recently it was shown that protein arginine methyltransferase 5 (PRMT5), an emerging epigenetic enzyme and putative splicing regulator, is required for the hormone-naïve prostate cancer (HNPC) growth. Mechanistically, it was demonstrated that in HNPC PRMT5 epigenetically activates AR transcription. Considering the role of AR in CRPC and that

Methods:

shRNA against PRMT5 and inhibitor BLL3.3 were used to target PRMT5 in CRPC cells C4-2 (AR overexpression), 22Rv1 (AR-V7 expression) and VCaP (AR gene amplification). Transcriptome-wide gene expression was measured via RNA-seq. AR and AR target genes expression were analyzed using Western Blot and RT-qPCR. Cell proliferation was measured using MTT assay. Chromatin immunoprecipitation was used to analyze presence of PRMT5 and associated histone methylation marks at the AR promoter. 22Rv1 lines with shRNA inducible expression were established for use in xenograft studies.

PRMT5 regulates AR in HNPC, we aimed to determine whether PRMT5 regulates AR expression in CRPC.

Results:

PRMT5 targeting reduced cell proliferation and decreased the protein and mRNA levels of both AR full length and V7 in all CRPC cell lines tested. Consistently, expression of full length AR or AR-V7 target genes was decreased. PRMT5 and H4R3me2s were present at the AR promoter. To further explore the role of PRMT5 in CRPC, we performed RNA-seq analysis in 22Rv1 upon PRMT5 knockdown. Interestingly, 293 genes were down- and 329 genes were upregulated upon PRMT5 knockdown contrary to the common perception of PRMT5 as an epigenetic suppressor. Additionally, exon mapping revealed differential up- and down-regulation of AR isoforms in PRMT5 knockdown samples suggesting that PRMT5 regulates AR splicing. PRMT5 knockdown significantly reduced the growth of 22Rv1 xenografts in castrated NRG male mice.

Conclusions:

Our results suggest that PRMT5 acts as a regulator of AR expression in CRPC cells via both epigenetic regulation of transcription and mRNA splicing. Based on these findings, we propose that targeting PRMT5 may present a novel treatment approach for CRPC via eliminating AR and its splice variants expression.



Friday, November 8. 2019 10:30 – 10:40 a.m. Travel Award Presentation #2: N-Myc-mediated Epigenetic Reprogramming Drives Lineage Plasticity in Advanced Prostate Cancer Nicholas Brady, PhD Weill Cornell Medicine New York, NY

Background:

Despite the development of highly effective androgen receptor (AR)-directed therapies, nearly 37% of prostate cancer patients develop resistance. A further third of these men develop aggressive neuroendocrine prostate cancer (NEPC) for which no effective therapies exist. Lineage plasticity, a process by which differentiated cells lose their identity and acquire an alternative lineage phenotype, has been proposed as a mechanism of resistance to targeted therapies, however, the molecular programs underlying this transformation are poorly understood. We observed that the majority of NEPC and 20% of castration-resistant prostate cancer (CRPC) aberrantly overexpress the transcription factor MYCN (N-Myc). Despite this frequent occurrence, the role of N- Myc in driving lineage plasticity and the epigenetic mechanisms which regulate disease progression remain to be elucidated.

Methods:

We analyzed overall survival and whole transcriptome data from a cohort of over 200 prostate cancer patients. We also assessed epigenetic modifications along with the N-Myc transcriptome, cistrome and chromatin-bound interactome by performing ChIP-seq, RNA-seq and RIME in a combination of mouse models, human prostate cancer cell lines, and NEPC patient-derived organoids following acute and chronic androgen withdrawal. Finally, we used CRISPR-based approaches to modulate the expression of N-Myc-interacting proteins to assess changes in chromatin accessibility by ATAC-seq.

Results:

Expression of N-Myc is correlated with reduced overall survival and NEPC tumors are significantly enriched for stem cell and neural lineage-defining genes. The N-Myc cistrome is androgen-dependent and drives a transcriptional program leading to epithelial plasticity and the acquisition of clinically relevant neural lineage markers. N-Myc interacts with the known AR co-factors HOXB13 and FOXA1 at neural lineage genes. Interestingly, histone marks at these N-Myc-bound, neural lineage genes are epigenetically reprogrammed by EZH2 and can accurately classify prostate cancer patients in our cohort. Finally, chromatin accessibility is altered by N-Myc in a chromobox family-dependent manner, leading to deregulation of gene expression.

Conclusions:

We describe a functional role for N-Myc in driving NEPC, characterized by changes in the N-Myc cistrome and interacting co-factors, as well as reprogramming of the epigenome in an androgen context-dependent manner. Ongoing studies are addressing tumor heterogeneity during lineage plasticity using single cell-based RNA-seq and ATAC-seq approaches and will identify novel actionable targets for future therapeutic interventions.



Friday, November 8, 2019 11:45 – 11:55 a.m. Travel Award Presentation #3: Site Specific DNA Methylation Silences Forkhead Box A1 Expression in Advanced Bladder Cancer Jenna M. Buckwalter, PhD Penn State College of Medicine Hershey, PA

Introduction and Objective:

Bladder cancer (BC) has significant molecular and morphologic heterogeneity. Transcription factor forkhead box A1 (FOXA1) is required for maintenance of urothelial differentiation, and decreased FOXA1 expression is associated with basal-squamous BC. As basal-squamous BC responds differentially to therapeutic intervention, manipulation of FOXA1 expression to control subtype specification is an attractive concept. The aim of this study was to determine the mechanism(s) responsible for loss of FOXA1 expression in BC.

Methods:

Computational analysis of the TCGA BC study was used to examine the relationship between FOXA1 mutational, copy number and methylation status with gene expression. The UCSC genome browser was used to identify CpG islands in the FOXA1 gene as potential sites of methylation. A PCR-based system for detecting methylated CpG islands was used to determine the methylation status of FOXA1-associated CpG islands in a panel of human BC cell lines. In addition, human basal BC cell lines that fail to express FOXA1 were treated with DNA methyltransferase (DNMT) inhibitors in an effort to influence methylation status and FOXA1 expression.

Results:

Decreased FOXA1 expression is not correlated with mutational status and/or copy number alterations in BC which suggested a role for epigenetic silencing of FOXA1 in basal- squamous BC. Three CpG islands were identified in the FOXA1 which include islands 99, 123, and 143. Analysis of TCGA DNA methylation data identified significant methylation at CpG island 99 (p<0.0009; Wilcoxon rank sum; Bonferonni) relative to normal adjacent control tissue. Methylation analysis for CpG islands in human BC cell lines determined CpG island 99 was methylated specifically in basal-squamous BC cell lines which fail to express FOXA1, while CpG island 143 was unmethylated. CpG island 123 was methylated in all ten cell lines. Treatment of SCaBER and HT1376 basal-squamous BC cell lines with the DNMT inhibitors 5-Aza-2'deoxycytidine and Zebularine individually and in combination increased FOXA1 expression and decreased DNA methylation at CpG island 99.

Conclusions:

Our data indicates site-specific methylation of CpG island 99 is implicated in the repression of FOXA1 expression in human BC and preclinical models. Importantly, FOXA1 methylation is reversed by DNMT inhibitor treatment, thus confirming methylation as an epigenetic regulatory mechanism controlling FOXA1 expression in BC. Our study additionally shows the importance of examining promoter methylation in association with gene expression to determine the functional consequences of epigenetic alterations.



Friday, November 8, 2019 3:00 – 3:10 p.m. Travel Award Presentation #4: Identification of a Novel PRC2 Complex as a Therapeutic Target in Castration Resistant Prostate Cancer Ka-Wing Fong, PhD

Northwestern University Chicago, IL

Background:

Metastatic castration-resistant prostate cancer (CRPC) is a lethal disease. Understanding the molecular drivers of CRPC will guide the development of targeted therapies. EZH2, the enzymatic subunit of Polycomb repressive complex 2 (PRC2), is one of the most upregulated genes in CRPC. EZH2 catalyzes trimethylation of Histone H3 at Lysine 27 (H3K27me3), a modification that represses target gene expression. A plethora of tumor suppressor genes has been reportedly to be targets of EZH2, and yet how EZH2 is recruited to specific genomic loci in mammals remain unclear.

Methods:

Co-IP and size-exclusive chromatography assays were utilized to study protein-protein interactions. Co-occupancy of histone marks on the chromatin were assessed by biochemical and ChIP-Seq assays. Reprogramming of PRC2 cistromes along with EZH2 transcriptome in human prostate cancer models were examined by next-generation sequencing techniques.

Results:

By proteomic profiling of EZH2-containing complex in prostate cancer cells, we identified a novel PRC2 sub-complex containing PALI1, a recently identified PRC2-associated protein, and G9a, an H3K9me2 demethylase. Further biochemical experiments revealed that PALI1 utilizes different domains to interact with PRC2 and G9a, acting as a scaffold protein that bridges PRC2 with G9a. Importantly, PALI1 is overexpressed in CRPC and this enhances PRC2- G9a interaction. We further demonstrate that PALI1 and G9a are components of a unique PRC2 sub-complex (named PRC2.3), which is distinct from previously reported EPOP-containing PRC2.1 and JARID2-mediated PRC2.2. Genome-wide co-localization of PRC2-catalyzed H3K27me3 and G9a-catalyzed H3K9me2 were detected at the chromatin. PALI1 promotes reprogramming of PRC2 at G9a co-occupied sites, leading to enhanced H3K27me3 modifications and stronger gene repression. Functionally, these genes are critical for cellular development and differentiation. Their repression, in turn, contribute to prostate cancer de-differentiation and oncogenic progression.

Conclusions:

We report a novel PRC2 sub-complex (PRC2.3) in prostate cancer cells, which contains PALI1 and G9a, but not JARID2 and EPOP. PALI is a critical mediator of PRC2 and G9a interaction and its overexpression in CRPC favors PRC2.3 assembly, resulting in a crosstalk between H3K27me3 and H3K9me2 at the chromatin and enhanced epigenetic silencing of cell differentiation genes. Our data suggest PALI1 and G9a as critical regulators of CRPC and promising targets for therapeutic interventions.



Friday, November 8, 2019 4:30 – 4:40 p.m. Travel Award Presentation #5: A Preclinical Study of the Combination Treatment of High-dose Testosterone and CDK4/6 Inhibitors in CRPC Wanting Han University of Massachusetts Boston Boston, MA

Background:

High-dose testosterone (high-T) treatment can suppress the growth of castration- resistant prostate cancer (CRPC) in preclinical and clinical trials. While androgen receptor (AR) is known for its transcriptional activation function, it also has repression function on DNA replication and repair genes. Mechanistically, we have demonstrated that AR globally recruits hypophosphorylated retinoblastoma protein (Rb) to DNA replication gene loci and strengthens the activity of Rb-E2F suppressor complex. This finding is consistent with a recent study on castration-resistant LuCaP models, which shows that the most robust molecular phenotype for high-T treatment is the suppression of E2F transcriptional output. It suggests a novel strategy to enhance the efficacy of high-T treatment with CDK4/6 inhibitors, which block Rb hyperphosphorylation. However, recent sequencing studies in CRPC indicate that ~10-15% of tumors have Rb-loss. Therefore, if these patients can be benefitted from high-T treatment or the combination remains to be determined.

Methods:

Lenti-viral Rb silencing and CRISPR/Cas9 knock-out cell lines were created in CRPC cells, and the efficacy of the combination treatment of high-T with a CDK4/6 inhibitor, palbociclib were tested in the xenografts derived from these cell lines and also in LuCap CRPC models.

Results:

Rb depletion rapidly impaired the AR-mediated transcriptional repression on DNA replication/repair genes and suppression of cell growth. However, high-T treatment still suppresses the expression of DNA replication genes and cell growth even when Rb is completely knocked out, both in vitro and in vivo. These findings suggest that Rb is contributing but not absolutely required for AR repression activity on DNA replication/repair. Significantly, we found that the interaction of E2F1 and a Rb-like pocket protein p130 was enhanced in Rb knock- out cells and this interaction was dependent on the phosphorylation status of p130, suggesting p130 may function as a substitute of Rb in Rb-loss CRPC cells. For the combination treatment, we found that palbociclib can enhance the efficacy of high-T treatment in cell line and xenograft models. However, this enhancing effect of palbociclib appeared to be dependent on the expression of Rb as it can be only seen in the Rb-positive but not Rb-silenced models.

Conclusions:

Our study provides some new insights into the molecular basis of high-T treatment in CRPC. It suggests that high-T treatment can be used even in Rb-null CRPC. However, the synergistic effect of the combination treatment of high-T and CDK4/6 inhibitors is still dependent on the expression of Rb in CRPC cells.



Friday, November 8, 2019 4:45 – 4:55 p.m. Travel Award Presentation #6: Targeting Steroid Sulfatase with Novel Inhibitors Suppresses CRPC Tumor Growth and Improves Response to Enzalutamide Cameron Armstrong, PhD University of California Davis

University of California Davis Davis, CA

Background:

Steroid sulfatase (STS) catalyzes the hydrolysis of DHEAS to biologically active DHEA, which is further metabolized to active androgens that bind the androgen receptor (AR) leading to cell proliferation. DHEAS is the most abundant steroid in blood circulation and significant concentrations of DHEAS are present in prostate cancer patients even after ketoconazole or abiraterone therapy, suggesting that this may act as a depot for downstream androgen production. Currently the role of STS in AR signaling and CRPC is largely unknown. This study determines the role of STS in AR signaling and explores the potential of targeting STS to overcome castration resistance in prostate cancer.

Methods:

Quantitative rt-PCR and Western blots were used to detect expression of STS and AR. STS was downregulated using siRNA specific to STS. Stable cell lines overexpressing STS were generated and characterized. RNA-seq was performed on the stable clones to determine alterations in gene expression instigated by STS expression. The steroid profiles of the cells were analyzed by LC-MS using the Thermo Scientific Vanquish UPLC/AB Sciex Qtrap system. STS activity was determined by 4-Methylumbelliferyl sulfate assay. Eleven potent STS inhibitors (SI) were synthesized and characterized. Prostate cancer cell sensitivity to SI was tested using cell growth assays and clonogenic assays. Efficacy of two SI was tested in vivo in castration relapsed VCaP xenograft tumor models.

Results:

STS is overexpressed in CRPC patients and resistant prostate cancer cells including VCaP and C4- 2B MDVR. Stable STS overexpression in C4-2B and LNCaP cells increases the levels of testosterone and DHT, respectively. This resulted in increased cell growth and PSA expression in vitro. Inhibiting STS with siRNA suppresses cell growth and AR signaling. Furthermore, STS overexpression in C4-2B and LNCaP cells promoted resistance to enzalutamide and this could be reversed by STS siRNA. Of the 11 potential novel SI, SI-1 and SI-2 were the most potent inhibition of STS activity and growth in VCaP cells. They significantly suppressed AR transcriptional activity, suggesting that inhibition of STS activity by SI downregulates AR signaling. SI-1 and SI-2 significantly suppressed the growth of relapsed VCaP cells and tumors and improved enzalutamide treatment in vitro and in vivo.

Conclusions:

STS is involved in castration resistance prostate cancer and inhibition of this enzyme could be a viable strategy to treat CRPC and improve enzalutamide treatment.



Saturday, November 9, 2019 3:30 – 3:40 p.m. Travel Award Presentation #7: Identification of Cognate Proximal Cell Types of the Mouse and Human Prostate and Their Enrichment in Human Benign Prostatic Hyperplasia Diya Binoy Joseph, PhD UT Southwestern Medical Center Dallas, TX

Background:

Benign prostatic hyperplasia (BPH) is highly prevalent in aging men and poses a significant healthcare burden associated with the treatment of Lower Urinary Tract Symptoms (LUTS). BPH/LUTS remain difficult to treat because of phenotypic heterogeneity, resulting in the need for surgical intervention. The cell types that originate BPH growth are not known. Anatomical studies have shown that the transition zone located near the urethra is the site of BPH growth. We previously identified two novel cell types, club and hillock, that are enriched in the prostatic urethra and proximal ducts. Here, we identify a new proximal fibroblast in the human as well as cognate hillock epithelia and proximal fibroblasts in the mouse. We assess the contribution of each proximal cell type in human BPH, establishing a new paradigm for urethral epithelia and proximal fibroblasts in discrete BPH phenotypes.

Methods:

We used an unbiased approach by single cell RNA-sequencing (scRNA-seq) to identify cognate cell types of the mouse and human prostate and develop new flow cytometry and IHC antibody panels to purify and locate each cell type. The frequency of proximal fibroblasts and urethral epithelia in BPH vs. normal human prostate was assessed using scRNA-seq, flow cytometry, and immunofluorescence.

Results:

Hillock and club cell identity is established early and these cells extend into the proximal ducts of the adult prostate transition zone. Proximal fibroblasts surround the urethra and proximal ducts. BPH patients have increased club and hillock cells within glandular nodules compared to normal prostate tissue and proximal fibroblasts are increased in areas of periurethral fibrosis. Mouse scRNA-seq and IHC data confirmed the existence of cognate proximal fibroblasts and hillock epithelia, but club cells were not found.

Conclusions:

Our results show that club and hillock epithelia of the urethra and proximal ducts are established before prostate budding and are enriched in BPH glandular nodules, suggesting a potential cellular origin for new prostate growth. We also identify the proximal fibroblast of the human as the cellular source of collagen deposition in prostatic fibrosis, setting up a new phenotype to target in patients with LUTS. We created a cellular atlas of the mouse urethra and proximal prostate, which will allow for the generation of specialized mouse models to trace urethral and proximal fibroblast lineages. The cell types of the proximal ducts could become novel targets for the treatment of BPH/LUTS.



Sunday, November 10, 2019 11:40 – 11:50 a.m. Travel Award Presentation #8: Osteopontin Exacerbates the Inflammatory Environment in the Prostate Petra Popovics, PhD University of Wisconsin–Madison Madison, WI

Background:

Chronic inflammatory processes are thought to contribute to the development of lower urinary tract symptoms (LUTS) in elderly men either via stimulating proliferation and triggering benign prostatic hyperplasia (BPH) or by triggering fibrosis in the periurethral region. Approximately 30% of patients with LUTS are resistant to existing therapies and identifying the inflammatory processes provoking tissue remodeling are essential to develop more efficient treatments. Our study aims to identify the role of osteopontin (OPN), a cytokine and fibrosis-associated protein elevated in experimental prostatitis, in inflammation and tissue remodeling in the prostate.

Methods:

OPN expression was detected by immunohistochemistry in prostates from patients without medical therapy or treated with α - blockers, 5- α reductase inhibitors or both and undergone surgery to relieve LUTS (sBPH, n=30). Incidental BPH (iBPH) is from the transitional zone of prostates from radical prostatectomy for low volume, low grade prostate cancer (n=8). Slides were captured with a Nuance multispectral camera and segmented and scored with inForm software. Immortalized stromal (BHPrS-1) and epithelial (NHPrE-1 and BHPrE-1) cell lines were used to determine the secretion of OPN in response to recombinant IL-1 β and TGF- β 1 by ELISA and genes activated by OPN were identified by qPCR.

Results:

OPN expression was detected in both glandular and stromal cells, although, it was not significantly elevated in sBPH patients compared to iBPH. However, OPN positivity was significantly higher in sBPH prostates when highly fibrotic samples with atrophic glands were eliminated from the iBPH group (p=0.0099). Multiple splice variants of OPN are expressed in the cell lines and its secretion is stimulated by TGF- β 1 in NHPrE-1 and both II-1 β and TGF- β 1 in BHPrS-1 cells. Most interestingly, we observed an increase in the expression of inflammatory genes in response to OPN including CXCL1, CXCL2, CXCL8, PTGS2 and IL6 in BHPrS-1, but this effect was not replicated in epithelial cells.

Conclusions:

Elevated levels of OPN exacerbates inflammation by stimulating stromal cytokine production. Pharmacological inhibition of OPN may have multiple beneficial effects to relieve LUTS by repressing the inflammatory environment in the prostate.



SBUR 2019 Annual Meeting – New Orleans, LA Poster Session #1

Friday, November 8, 2019 | 5:15–7:15 PM

<u>PS1-01</u>



A next-generation functional genomics strategy to deconvolute compound genetic drivers and genotype-to-phenotype relationships in bladder cancer

2019 Eula and Donald S. Coffey Innovative Research Award Finalist

John K. Lee, M.D., Ph.D.; Assistant Member, Human Biology Division, Fred Hutchinson Cancer Research Center

Alicia Wong; Human Biology Division, Fred Hutchinson Cancer Research Center, Huiyun Sun; Human Biology Division, Fred Hutchinson Cancer Research Center, Sujata Jana, Ph.D.; Human Biology Division, Fred Hutchinson Cancer Research Center, Andrew C. Hsieh, M.D.; Assistant Member, Human Biology Division, Fred Hutchinson Cancer Research Center https://drive.google.com/open?id=ligjg01Lsh5xk2pLyhX70w-

<u>https://drive.google.com/open?id=1igjg01Lsh5xk2pLyhX70w-</u> <u>HB4bMzT8_t</u>

PS1-02



Myeloid-Derived Suppressor Cells Inhibit T Cell

Activation in Prostate Cancer through Nitrating LCK 2019 Eula and Donald S. Coffey Innovative Research Award Finalist

Xin Lu, Ph.D., Boler Assistant Professor, University of Notre Dame; Indiana University

Shan Feng, Ph.D., Postdoctoral Fellow, Liang Cheng, M.D., Virgil Moon Professor of Pathology

https://drive.google.com/open?id=1TlKviBkRftOi916p3bPh-41w-BVUSWgA

<u>PS1-03</u>

First Genetically Engineered Mouse Model of Penile Cancer and Its Application in Preclinical Immunotherapy Xin Lu, Ph.D., Boler Assistant Professor, University of Notre Dame; Indiana University

Tianhe Huang, PhD, Postdoctoral Fellow, Pheroze Tamboli, MBBS, Professor, MD Anderson Cancer Center, Priya Rao, MD, Associate Professor, MD Anderson Cancer Center, Magaly Martinez Ferrer, PhD, Assistant Professor, University of Puerto Rico, Ronald A. DePinho, MD, Professor, MD Anderson Cancer Center, Curtis A. Pettaway, MD, Professor, MD Anderson Cancer Center

https://drive.google.com/open?id=1Cl5Mge2cXfg8lGH4LKZM gxzHE2GkgwQq

<u>PS1-04</u>



A Novel Therapeutic Target For the Treatment Lethal Prostate Cancer

2019 Eula and Donald S. Coffey Innovative Research Award Finalist

Salma Kaochar, PhD, Baylor College of Medicine

Additional Authors - Darlene Skapura, Matthew Robertson, Christel Davis, Erik Ehli, Kimal Rajapakshe, Cristian Coarfa, Bert O'Malley, Nicholas Mitsiades

https://drive.google.com/open?id=106zuyn5SuwMm44uvQGD moxbJBfdOspCy

<u>PS1-05</u>

PD-L1 is associated with the clinical features of human primary prostate tumors

2019 Travel Award Winner Dongxia Ge, Tulane University, New Orleans, LA https://drive.google.com/open?id=1uGNapp-

<u>CJyYgyTZ2hZEvQfjxDj5EkVpx</u>

<u>PS1-06</u>

LSD1 activates PI3K/AKT signaling through regulating p85 expression in prostate cancer cells

Zifeng Wang, Center for Personalized Cancer Therapy, University of Massachusetts Boston

Prof. Shuai Gao, Dr. Dong Han, Wanting Han, Muqing Li, Prof. Changmeng Cai

https://drive.google.com/open?id=1oznHPNI-IIHeA7xPg1kCSo 9d-5ywfiF



<u>PS1-07</u>



Interleukin-17 Upregulates MTA1 Expression to Promote Cancer Cell Migration and Invasion 2019 Travel Award Winner

Ahmed A. Moustafa, Postdoctoral Fellow, Department of Structural & Cellular Biology, Tulane University, New Orleans, LA

Na Guo, Department of Structural & Cellular Biology, Tulane University, Department of Obstetrics and Gynecology, West China Second University Hospital, Sichuan University, Chengdu, China, Ge Shen, Department of Structural & Cellular Biology, Tulane University, Ying Zhang, Department of Gynecology, Guangyuan First People,Äôs Hospital, Guangyuan, China, Dongxia Ge, Department of Structural & Cellular Biology, Tulane University, Zongbing You, Department of Structural & Cellular Biology, Department of Orthopedic Surgery, Tulane Cancer Center and Louisiana Cancer Research Consortium, Tulane Center for Stem Cell Research and Regenerative Medicine, Tulane Center for Aging, Tulane University; Southeast Louisiana Veterans Health Care System, New Orleans <u>https://drive.google.com/open?id=1gONm-vC5C-pbXaKaGgw8RXT16mst6hQW</u>

<u>PS1-08</u>

A novel model of prostate cancer suggests enzalutamide functions through the immune system to diminish castration resistant and metastatic growth Steven Kregel, PhD, University of Michigan

Jae Eun Choi, Kristen Juckette, Brooke Mccollum, Stephanie Simko, Parth Desai, Yuanyuan Qiao PhD, Paul A. Volden PhD, and Arul M. Chinnaiyan MD, PhD

<u>https://drive.google.com/open?id=1SnvYD4hFm0zwUGPqnNnff</u> <u>VtdfKqVsmjq</u>

PS1-09

Androgen Receptor Degraders Overcome Common Resistance Mechanisms Developed During Prostate Cancer Treatment

Steven Kregel, PhD, University of Michigan

Chao Wang, PhD, Xin Han, PhD, Lanbo Xiao, PhD, Ester Fernandez-Salas, PhD, Pushpinder Bawa, PhD, Brooke L. McCollum, Kari Wilder-Romans, BS, Xuhong Cao, MS, Corey Speers, MD/PhD, Shaomeng Wang, PhD, and Arul M. Chinnaiyan, MD, PhD

https://drive.google.com/open?id=1hzRJaOdw1oFfK01ZZvAJ5 wjiWmmk8kQV

<u>PS1-10</u>

Trop2 as a Driver and Therapeutic Target for Metastatic Castration-Resistant Prostate Cancer with Neuroendocrine Phenotype

Tanya Stoyanova, PhD, Stanford University

En-Chi Hsu, Meghan A. Rice, Abel Bermudez, Fernando Jose Garcia Marques, Merve Aslan, Ali Ghoochani, Chiyuan Amy Zhang, Yun-Sheng Chen, Aimen Zlitni, Frezghi Habte, Sahil Kumar, Shiqin Liu, Kashyap Koul, Michelle Shen, Rosalie Nolley, Donna M. Peehl, Amina Zoubeidi, Sanjiv Sam Gambhir, Christian Kunder, Sharon Pitteri, James D. Brooks and Tanya Stoyanova

https://drive.google.com/open?id=1ldU0Ll4SIRVnt8T1GVSohk 5yLDvtuNjn

<u>PS1-11</u>

3D Renal Organoids of Human Urinary Stem Cells for Nephrotoxicity Testing

Yuanyuan Zhang MD, PhD, Associate Professor, Wake Forest University, Institute for Regenerative Medicine Haibin Guo MD PhD, Lei Dou MD PhD, Nan Deng MD PhD, Huifeng Ding MD PhD, Anthony Atala MD https://drive.google.com/open?id=1oUCKQInyBKyrgKQk4AysxoROSF3ALxN

<u>PS1-12</u>

Impaired Regeneration Potential of Urine-derived Stem Cells in Chronic Kidney Disease

Yuanyuan Zhang MD, PhD, Associate Professor, Wake Forest University, Institute for Regenerative Medicine Geng Xiong MD PhD, Weiqing Tang MD PhD, Anthony J. Bleyer MD Nephrologist, Professor, Michael E. Bleyer Medical student, Antony Atala MD Urologist, Professor, Joseph A. Aloi MD, Endocrinologist Professor, Cristina M. Furdui PhD Professor https://drive.google.com/open?id=1d3O2JNDOa3daUESYxoD Qh6lkDxF9kTBW

<u>PS1-13</u>



Prostatic fibrosis is coupled to a mesenchymal IL4/IL13 autocrine loop 2019 Travel Award Winner

Mathilde L. Bonnemaison Ph.D., University of Massachusetts Boston

Mehrnaz Gharaee-Kermani Ph.D., Jill A. Macoska Ph.D. https://drive.google.com/open?id=1aeOyFUbvIIC3eD10Dzy0OHazP2HBmRe



<u>PS1-14</u>

Targeting P2X4 Purinergic Receptors in Aggressive Prostate Cancer

Janielle P. Maynard, PhD, Johns Hopkins University Tamirat Ali, Angelo M. De Marzo, MD, PhD, Karen S. Sfanos, PhD

https://drive.google.com/open?id=1rnQUZgVBi-VGYuKKvbkRSnfgFC4TTFS0

PS1-15

Expansion of Luminal Progenitor Cells in the Aging Mouse and Human Prostate

Preston D. Crowell, University of California, Los Angeles

Jonathan J. Fox, Takao Hashimoto, Johnny A. Diaz, Gervaise H. Henry, Matthew G. Lowe, Ye E. Wu, Douglas W. Strand, Andrew S. Goldstein

https://drive.google.com/open?id=1jzIoSNV43u WJknG4ioD-Exs51oWjrD6

<u>PS1-16</u>

Methylation of SRD5A2 promoter predicts a better outcome for castration-resistant prostate cancer patients undergoing androgen deprivation therapy Zongwei Wang, PhD, Harvard University

Tuo Deng, M.D., Xingbo Long, M.D., Xueming Lin, M.D., Shulin

Wu, M.D., Hongbo Wang, Ph.D., Rongbin Ge, M.D., Zhenwei Zhang, Ph.D., Chin-Lee Wu, Ph.D, M.D., Mary-Ellen Taplin, M.D. , Aria F. Olumi, M.D.

https://drive.google.com/open?id=19a90P8MMDFfMTqzwSJya b6f5DiczWVJr

PS1-17

Obesity-associated inflammation induces androgenic to estrogenic switch in the prostate gland Zongwei Wang, PhD, Harvard University

Bichen Xue, MD, Shulin Wu, MD, Shahin Tabatabaei, MD, Chin-Lee Wu, MD, Zhiyong Cheng, MD, Li Xin, MD, Douglas Strand, MD, Aria F. Olumi, MD, Zongwei Wang, PhD

https://drive.google.com/open?id=1d9TpBnRYhCMgvy95oPY4 94QgeJPoSm1-

<u>PS1-18</u>

Development of CRISPR human Skp2 knock-in in the prostate of mouse and the associated prostate organoids for testing Skp2 targeting agents

Liankun Song, postdoctoral scholar, University of California, Irvine

Xiaolin Zi, professor, Shan Xu, pathologist, Kia Arabzadehkaffash, undergraduate student, Ali Fazelpour, undergraduate student, Dongjun Fu, postdoc, Matthew Tippin, <u>https://drive.google.com/open?id=1gzrvuhsKuWpwL0sWPVzWil</u> <u>M4i4oonffH</u>

<u>PS1-19</u>

Lymphocyte Mediated Luminal Progenitor Cell Expansion in the Aging Prostate Hector Ivan Navarro, Ph.D. Student, University of California, Los Angeles Andrew Goldstein, Ph.D. -Principal Investigators

https://drive.google.com/open?id=1Jttqi2lYnYg7-HUGdW7v5Zvcy72yWHmT

PS1-20 The Role of UDP-glucuronosyl transferase 2B28 in

Prostate Cancer 2019 Travel Award Winner

Anindita Ravindran, BS - Graduate student, Baylor College of Medicine

Akash Kaushik, PhD - Postdoctoral associate, UT Southwestern Medical Center, Arun Sreekumar, PhD ,Äì Professor, Baylor College of Medicine, Nagireddy Putluri, PhD ,Äì Associate Professor, Baylor College of Medicine, Truong Dang, BS -Research technician, Baylor College of Medicine David Rowley, PhD - Professor, Baylor College of Medicine, Michael M Ittmann, PhD - Professor, Baylor College of Medicine, Uttam Rasaily, MS -Research technician, Baylor College of Medicine, Chandrashekar Reddy Ambati, MS - Research technician, Baylor College of Medicine, Nancy Weigel, PhD - Professor, Baylor College of Medicine, Balasubramanyam Karanam, PhD ,Äì Assistant Professor, Tuskegee University

https://drive.google.com/open?id=1Jttqi2lYnYg7-HUGdW7v5Zvcy72yWHmT

<u>PS1-21</u>

Nuclear factor I/B increases in prostate cancer to support androgen receptor activation

Jagpreet Singh Nanda, Postdoctoral fellow, Department of Urology, Case Western Reserve University

Wisam N. Awadallah, Research Assistant, Department of Urology, Case Western Reserve University, Sarah E. Kohrt, Graduate Student, Department of Pharmacology Case Western Reserve University, Petra Popovics, K12 Scholar, Department of Urology, University of Wisconsin School of Medicine and Public Health, Justin M. M. Cates, Department of Pathology, Microbiology, and Immunology, Vanderbilt University Medical Center Janni Mirosevich, Department of Urology, Vanderbilt University Medical Center, Peter E. Clark, Department of Urology Levine Cancer Center/Atrium Health, Giovanna A. Giannico, Department of Pathology, Microbiology, and Immunology, Vanderbilt University Medical Center Magdalena M. Grabowska, Assistant Professor, Case Western Reserve University

https://drive.google.com/open?id=1wamU5x9u7wHleqeDWDs yzSHWsw4lINFB



<u>PS1-22</u>

Macrophage recruitment, activation and neural cross-talk are associated with development and maintenance of chronic pelvic pain

Dr. Zhiqiang Liu, Department of Urology, Feinberg School of Medicine, Northwestern University

Dr. Stephen F. Murphy, Department of Urology, Feinberg School of Medicine, Northwestern University, Larry Wong, Department of Urology, Feinberg School of Medicine, Northwestern University, Dr. Anthony J. Schaeffer, Department of Urology, Feinberg School of Medicine, Northwestern University, .Dr. Praveen Thumbikat, Department of Urology, Feinberg School of Medicine, Northwestern University

https://drive.google.com/open?id=1-q6p rzYGK-7AWr4MCKDHQzbyaFS11 F

<u>PS1-23</u>

Epigenetic modifications drive autoimmunity in CPPS Stephen F Murphy, Ph.D., Department of Urology, Feinberg School of Medicine, Northwestern University

Dr. Anthony J. Schaeffer, MD, Dr. Praveen Thumbikat, DVM, PhD

https://drive.google.com/open?id=1HQ42L0kTEdqSE5sqUSpM atwLujFgpA2P

<u>PS1-24</u>



Urinary Metabolites for the Risk Stratification of Prostate Cancer

2019 Travel Award Winner

Qin Gao Ph.D., Postdoctoral Researcher, University

of Texas at El Paso

Xiaogang Su Ph.D., Professor, University of Texas at El Paso, Heinric Williams, M.D., FACS, Physician, Geisinger Medical Center, Michael Hani Annabi, M.D., Physician, The Clinic Internal Medicine, Wen-Yee Lee Ph.D., Associate Professor, University of Texas at El Paso

https://drive.google.com/open?id=1TeSctk-LltCC0lYl5rCho7s-1IsMt7F8

PS1-25

Application of Urinary Volatile Organic Compounds for the Diagnosis of Renal Cancer

Wen-Yee Lee Ph.D., Associate Professor, University of Texas at El Paso

Qin Gao Ph.D., Postdoctoral Researcher, University of Texas at El Paso, Xiaogang Su Ph.D., Professor, University of Texas at El Paso, Heinric Williams M.D., FACS, Physician, Geisinger Medical Center

https://drive.google.com/open?id=19YoRrxMv7xH_JhWu2bJpv SSfpuJQFPq0

<u>PS1-26</u>



MAP3K11 drives in vitro enzalutamide resistance in castration-resistant prostate cancer 2019 Travel Award Winner

Sarah Kohrt, Case Western Reserve University Wisam Awadallah, Magdalena Grabowska, PhD https://drive.google.com/open?id=1N-gn-wQCkYkTj-N07nTCGfHparigt9jA

<u>PS1-27</u>

Therapeutic potential of targeting macrophages in castration resistant prostate cancer

Asmaa El-Kenawi, PhD, Moffitt Cancer Center

Additional Authors - William Dominguez Viqueira, PhD Lee Noel Brian Ruffell, PhD

https://drive.google.com/open?id=18v-TiZlx6tdCNaDA9vxnbHqwBpp-7d8E

<u>PS1-28</u>

LSD1-mediated demethylation of FOXA1 regulates AR cistrome in Prostate Cancer

Shuai Gao Ph.D, Research Assistant Professor, University of Massachusetts-Boston

Sujun Chen, Dong Han, Zifeng Wang, Muqing Li, Wanting Han, Anna Besschetnova, Feng Zhou, David Barrett, My Phu Luong, Jude Owiredu, Yi Liang, Musaddeque Ahmed, Jessica Petricca, Jill A. Macoska, Eva Corey, Sen Chen, Steven P. Balk, Housheng Hansen He, and Changmeng Cai

https://drive.google.com/open?id=1LxpKGEITq8lm5kwjIUaC5U BxdSOehTQW

<u>PS1-29</u>

CCL25 neutralization enhances efficacy of Docetaxel in preclinical prostate cancer model

Hina Mir, PhD., Morehouse School of Medicine

Neeraj Kapur, PhD., Sejong Bae, PhD., Guru Sonpavde, MD, James W. Lillard, Jr., PhD., MBA and Shailesh Singh, PhD. https://drive.google.com/open?id=1R8x19qeDZLekCDMttXfy9 wl qLruD6B9



PS1-30



Differential role for SIRT1 in prostate cancer

development and progression 2019 Travel Award Winner

Shih-Bo Huang, MS, University of Texas Health Science Center at San Antonio

Dinesh Thapa, PhD, Amanda R Muñoz, PhD, Suleman S. Hussain, PhD, Xiaoyu Yang, MS, Roble G Bedolla, MD, Zhao Lai, PhD, Yidong Chen, PhD, Paul Rivas, Claire Shudde, Pawel Osmulski, PhD, Maria Gaczynska, PhD, Robert L Reddick, MD, Hiroshi Miyamoto, MD, PhD, Rita Ghosh, PhD, Addanki Pratap Kumar, PhD

<u>https://drive.google.com/open?id=1vJIpoPfrrAyfuE-</u> <u>vmrphdKgIUAe6Vxpr</u>

<u>PS1-31</u>

Loss of Androgen Receptor in Prostate Cancer Stroma Inhibits Luminal Epithelial Differentiation Shekha Tahsin, Cancer Biology Graduate program, University of Arizona

Linan Jiang, Research Assistant Professor, Aerospace and Mechanical Engineering; Yitshak Zohar, Professor, Aerospace and Mechanical Engineering, Cindy K. Miranti, Professor, Cellular and Molecular Medicine

https://drive.google.com/open?id=1XFVUWhS8p8AKiayMwI8mL zIXb4f2YPN5

<u>PS1-32</u>

Decreased glucose bioavailability and elevated aspartate metabolism in prostate cancer cells undergoing epithelialmesenchymal transition

Yule Chen, PhD, MD, Department of Urology, The First Hospital of Xi'an Jiaotong University

Ke Wang PhD, Lei Li, PhD, MD

https://drive.google.com/open?id=1PUEjzX1gaSAzdITu2XO3ti wjBIJiZs P

<u>PS1-33</u>

Exogenous testosterone and estradiol prolong prostate smooth muscle relaxation via downregulation of MYPT2: a novel utility for genetically encoded calcium receptors Anne E Turco, University of Wisconsin-Madison

Steven R Oakes, Allison Rodgers, Celeste Underriner, Mark Cadena, Richard E Peterson, Laura Hernandez, Tim Hacker, Nathan Tykocki, Chad M Vezina

https://drive.google.com/open?id=1EkszMvJXgKwqhV2jjQelKJ4AZ6nBuTP

<u>PS1-34</u>

Temporal Analysis of Signaling Events Leading to Bladder Remodeling after Spinal Cord Injury Ali Hashemi, PhD, Harvard Medical School/Boston Childrens Hospital

Bryan S. Sack, MD, Mary Piper, PhD, Justin F. Cotellessa, PhD, Claire Doyle, PhD, Mehrnaz Gharaee-Kermani, PhD, Amy Avery, PhD, Vivian Cristofaro, PhD, Maryrose P. Sullivan, PhD, Fiona C. Burkhard, MD, Katia Monastyrskaia, PhD, Jill A. Macoska ,PhD, Rosalyn M. Adam, PhD

https://drive.google.com/open?id=1Cd80Guw_slleFzLzzQvgNe OwX0VSwm60

<u>PS1-35</u>

Development of a Whole-Urine, Multiplexed, Next Generation RNA-Sequencing Assay for the Early Detection of Aggressive Prostate Cancer

Dr. Simpa Salami, MD, MPH, University of Michigan

Andi K. Cani, Kevin Hu, Javed Siddiqui, Yingye Zheng, PhD Sumin Han, PhD, Srinavas Nallandhighal, Trinh Pham, Chia-Jen Liu, Daniel H. Hovelson, PhD, Lanbo Xiao, PhD, Heng Zheng, Jeffrey J. Tosoian, MD, Ganesh S. Palapattu, MD, FACS, Todd M. Morgan, MD, Aaron Udager, MD, PhD, Arul M. Chinnaiyan, MD, PhD, John T. Wei, MD, Scott A. Tomlins.

https://drive.google.com/open?id=1469scbY4IROOUwSGZjVPREpTpvKH rr

<u>SCDY4IROOUWSGZJVPREDIDVKH</u>

<u>PS1-36</u>



Targeting steroid sulfatase with novel inhibitors suppresses CRPC tumor growth and improves response to enzalutamide

2019 Travel Award Winner

Cameron M. Armstrong, PhD, UC Davis

Chengfei Liu, MD, PhD, Liangren Liu, MD, Joy C. Yang, PhD, Wei Lou, MD, Christopher P. Evans, MD, Pui-Kai Li, PhD, Allen C. Gao, MD, PhD

https://drive.google.com/open?id=1v2P8pcjWcvU2XnCq5eflF NM4Ty73Sc 8

<u>PS1-37</u>

Role of mast cells in an uropathogenic Escherichia coli induced model of lower urinary tract symptoms associated with benign prostatic hyperplasia

Goutham Pattabiraman, Ph.D., Northwestern University Daniel J. Mazur, Ph.D.Joseph D. Done, B.S.Ashlee Bell-Cohn, B.S.Anthony J Schaeffer, M.D.Praveen Thumbikat, Ph.D., D.V.M. https://drive.google.com/open?id=1j8a6IshvXb6bc4u7xIAAaP DVIAAlk4eh



<u>PS1-38</u>

A Novel Syngeneic Mouse Model of Prostate Cancer Bone Metastasis: Mechanisms of Chemotaxis and Bone Colonization

Srinivas Nandana, Assistant Professor, Dept. of Cell Biology and Biochemistry, Texas Tech University Health Sciences Center, Lubbock

Murali Gururajan, Manisha Tripathi, Chia-Yi Chu, Haiyen E. Zhau, Stephen L. Shiao, Leland W.K. Chung https://drive.google.com/open?id=1w-NT0UeH3UfP5z NO1bj3aCmoebkiUJ

<u>PS1-39</u>



A genetically defined tumor model characterizes small cell carcinoma of the bladder

2019 Travel Award Winner

Liang Wang, Ph.D., University of California, Los Angeles Bryan A. Smith, Ph.D.; Nikolas G. Balanis, Ph.D.; Brandon L. Tsai, B.S.; Kim Nguyen, B.S.; Michael W. Cheng; Matthew B. Obusan, B.S.; Favour N. Esedebe, B.S; Saahil J. Patel, B.S.; Hanwei Zhang, Ph.D.; Peter M. Clark, Ph.D.; Anthony E. Sisk, DO; Jonathan W. Said, MD; Jiaoti Huang, MD, Ph.D.; Thomas G. Graber, Ph.D.; Owen N. Witte, MD; Arnold I. Chin, MD, Ph.D.; Jung Wook Park, Ph.D.

https://drive.google.com/open?id=11acBMMjGFyDYokxzmFfa 1QjIM3hKC475

<u>PS1-40</u>



Identification of a Novel PRC2 Complex as a Therapeutic Target in Castration Resistant Prostate Cancer

2019 Travel Award Winner

Ka-Wing Fong PhD, Northwestern University

Jonathan C. Zhao, PhD, Xiaodong Lu, PhD, Jung Kim, PhD, Andrea Piunti, PhD, Rakshitah Jagadish, MS, Jindan Yu, MD PhD https://drive.google.com/open?id=1tqxBmH-SOxxuj-88 5pdgs-SYFBp6Qaf

<u>PS1-41</u>

Fibroblasts accumulate and produce collagen in dogs prone to prostate related urinary dysfunction

Hannah Ruetten, University of Wisconsin- Madison Marlyse Wehber*1,2, Clara Cole*1,2, Mark Cadena2, Kyle A. Wegner2,3, Michael F. Romero4, Michael W. Wood5, Sara A. Colopy6, Dale E. Bjorling6, and Chad M. Vezina1,2,3*authors contributed equally to this project, Department of Comparative Biomedical Sciences, School of Veterinary Medicine, University of Wisconsin- Madison, George M. O'Brien Benign Urology Center, University of Wisconsin- Madison, Molecular and Environmental Toxicology Center, School of Medicine and Public Health, University of Wisconsin- Madison, Physiology and Biomedical Engineering and Nephrology and Hypertension, George M. O'Brien Urology Research Center, Mayo Clinic College of Medicine and Science, Rochester, MN, Department of Medical Sciences, School of Veterinary Medicine, University of Wisconsin- Madison, Department of Surgical Sciences, School of Veterinary Medicine, University of Wisconsin- Madison https://drive.google.com/open?id=1FOMKEFIjEDZL3KRbv 70h AFXh7wGLo4B

<u>PS1-42</u>

A Retrospective Medical Record Review of Benign Prostatic Hyperplasia in a Well-Defined Population of Client-Owned Dogs: Clinical Presentation, Prevalence of Concurrent Bacterial Infection, and Response to Treatment Hannah Ruetten, University of Wisconsin- Madison

Clara Cole*1,2, Marlyse Wehber*1,2, Simran Sandhu1,2, Steven R. Oakes1,2,3, Kenneth Waller III4, Chad M. Vezina1,2,5, and Katrina Viviano6*authors contributed equally to this project. 1Department of Comparative Biosciences, School of Veterinary Medicine, University of Wisconsin-Madison, Madison, WI2, University of Wisconsin-Madison/UMASS Boston George M. O'Brien Center for Benign Urologic Research, Madison, WI and Boston, MA, Department of Biomedical Engineering, College of Engineering, University of Wisconsin-Madison, Madison, WI4Department of Surgical Sciences, School of Veterinary Medicine, University of Wisconsin-Madison, Madison, WI4Department of Surgical Sciences, School of Veterinary Medicine, University of Wisconsin-Madison, Madison, WI5, Molecular and Environmental Toxicology Center, University of Wisconsin-Madison, Madison, WI6, Department of Medical Sciences, School of Veterinary Medicine, University of Wisconsin-Madison

https://drive.google.com/open?id=1A6rdhqLLxG2l6szfG0_0iwp u90tfijY6



<u>PS1-43</u>



Estrogen mediated racial disparity in men with benign prostatic hyperplasia

2019 Travel Award Winner

Teresa T Liu, PhD, University of Wisconsin – Madison

Emily A. Ricke, MA, Douglas Strand, PhD, Rajiv Dhir, M.D., MBA, William A. Ricke, Ph.D.

https://drive.google.com/open?id=1KBYLoyuuZsRdNsp1VdRn D6kCdFb7F8ut

PS1-44

Inhibition of EZH2 enhances the antitumor efficacy of metformin in prostate cancer

Yifan Kong

https://drive.google.com/open?id=1nK1anU_Uhc0gNC5BXY7 8njmWX1cBdmg

<u>PS1-45</u>

Screening of histone post-translational modifications in castration resistant prostate cancer reveals CHD1 gene deficiency engenders a distinct epigenetic profile Joseph Gawdzik PhD, University of Wisconsin

Additional Authors - Eric Armstrong MS, Bing Yang PhD, Rehann Machhi, John Denu PhD, David Jarrard MD https://drive.google.com/open?id=1QLXdaAUCvembkeSsdv91 Er7VifuyaNe6

<u>PS1-46</u>

Methoxychalcone derivative as a potent inhibitor of aggressive prostate cancer through glycolytic targeting Meghan A. Rice, PhD, Stanford University

Vineet Kumar, PhD, Dhanir Tailor, PhD, Fernando Jose Garcia Marquez, PhD, Abel Bermudez, Zintis R. Inde Vijaya Kanchustambham, PhD, Ali Ghoochani, PhD, Rosalie Nolley, Mallesh Pandrala, PhD, Angel Resendez, PhD, Merve Aslan, MS, Arushi Agarwal, Mark Buckup, Shiqin Liu, MD PhD, En-Chi Hsu, PhD, Catherine Going, PhD, Donna Peehl, PhD, Scott J. Dixon, PhD, Richard Zare, PhD, James D. Brooks, MD, Sharon Pitteri, PhD, Sanjay Malhotra, PhD, Tanya Stoyanova, PhD https://drive.google.com/open?id=1jlYsIX9Sbkzna5LkktZFnUM

PS1-47

KEKLrNTPP

Development of Lidocaine-Eluting Catheter Catheter-Induced Bladder Pain

Eun Bi Jang, Department of Urology, Hanyang University College of Medicine, Seoul, Korea

Ji Young Lee, Young Eun Yoon, Sung Yul Park, Hong Sang Moon, Department of Urology, Hanyang University College of Medicine, Seoul, Korea

https://drive.google.com/open?id=1GhJIFu03ULPN xz wbG02yC-wBXpc30

<u>PS1-48</u>

The impact of ginsenoside and everolimus use on renal cell carcinoma

Ji-Young Lee, Department of Urology, Hanyang University College of Medicine, Seoul, Korea

Dae Keun Kim, Sung Yul Park, Young Eun Yoon, Department of Urology, Hanyang University College of Medicine, Seoul, Korea <u>https://drive.google.com/open?id=1NeMXX67mFlf2RTu0a iV -</u> <u>sBD JG5VTr</u>

<u>PS1-49</u>

The Anticancer Effect of Ginsenoside Rg3 and Rh2 in Renal Cell Carcinoma

Ji-Young Lee, Department of Urology, Hanyang University College of Medicine, Seoul, Korea

Dae Keun Kim, Sung Yul Park, Young Eun Yoon, Department of Urology, Hanyang University College of Medicine, Seoul, Korea https://drive.google.com/open?id=1oechKque5q-KKd lguddlbhkGdDwHI

<u>PS1-50</u>



A preclinical study of the combination treatment of high-dose testosterone and CDK4/6 inhibitors in CRPC

2019 Travel Award Winner

Wanting Han, University of Massachusetts Boston

Anthia A Toure, Dong Han, Postdoctoral Fellow, Shuai Gao, Research Assistant, Professor Changmeng Cai, Assistant Professor

https://drive.google.com/open?id=1B9xxDRWHRXgdbn8s76OJ 94vZls86-XaH

<u>PS1-51</u>

Prostate Neuroendocrine Cell Serotonin Aids to Prevent Microbial Infection

Mark Cadena, University of Wisconsin - Madison

Jonathan Zhu - UW-Madison Summer Program in Undergraduate Urology Research, Madison, WI; Peiqing Wang -Cardiovascular Research Center, Madison, WI; Celeste Underriner - UW-Madison Molecular and Cellular Pharmacology Graduate Program, Madison, WI; Laura Hernandez - UW-Madison Dept. of Dairy Science, Madison, WI; Nathan Tykocki - University of Vermont Dept. of Pharmacology, Burlington, VT; Tian Shen - University of Columbia Dept. of Medicine, New York City, NY; Jonathan Barasch - University of Columbia Dept. of Medicine, New York City, NY; Michael Romero - Mayo Clinic College of Medicine & Science, Dept. of Physiology & Biomedical Engineering and Nephrology & Hypertension, Rochester, MN; Chad Vezina - UW-Madison Dept. Comparative Biosciences, Madison, WI

https://drive.google.com/open?id=1B9rqDYg9dSc-zjloxF-JEbkeHRGKxVYU



<u>PS1-52</u>



Sanguinarine (SNG) is a novel dual-inhibitor of Lysine-specific demethylase 1A (LSD1) and androgen receptor (AR) against castration-resistant prostate cancer

2019 Travel Award Winner

Victor Pham, University of California, Irvine

Victor Pham, Vinh X Le, Dongjun Fu, Thanh NH Le, Marvin Miller, Matthew Tippin, Liankun Song, Xiaolin Zi https://drive.google.com/open?id=1s7C1S4veF0YBn3fSqsNgKI ttXgnabjTQ

<u>PS1-53</u>

Characterization of a novel androgen receptor variant, VBI-1, in bladder cancer

Kimberley D. Katleba, PhD, University of California, Davis

Alan P. Lombard, PhD, Chris A. Lucas, Kristine S. Nishida, Han Bit Baek, Paramita Ghosh, PhD, Maria Mudryj, PhD https://drive.google.com/open?id=1msQzQZ7I20Yr LoBCH4LE zIP1N87yENq

<u>PS1-54</u>

Molecular determinants for enzalutamide-induced oncogenic transcription in prostate cancer Fuwen Yuan, Duke University

William Hankey (postdoctoral fellow), Dayong Wu (research associate), Hongyan Wang (senior research scientist), Jason

Somarelli (medical instructor), Andrew J. Armstrong (professor), Jiaoti Huang (professor), Zhong Chen (assistant professor), Qianben Wang (professor)

https://drive.google.com/open?id=1cXlsgyvRiVdZQpOBNhVQ 8kRIHBrg8gzH

<u>PS1-55</u>

Big-data analysis reveals a role of opiorphin encoding genes in prostate cancer and possible genetic mechanisms modulating tumor growth and androgen-sensitivity Dr. Kelvin P. Davies, Albert Einstein College of Medicine

Dr. Amarnath Mukherjee, Mr. Augene Park

https://drive.google.com/open?id=1VVzzSDx9UoMQBPDIAdX hM3inRbZe3qXx

<u>PS1-56</u>

Hit-to-Lead Optimization of a First-in-Class FKBP52 inhibitor for the Treatment of Castration Resistant Prostate Cancer Ashley Nichole Payan - PhD Student, University of Texas at El Paso

Naihsuan C. Guy, Marc B. Cox – Pl https://drive.google.com/open?id=14yjQP8-RAUIIcLwvPSbgz4 a vKbgvT

<u>PS1-57</u>

Facilitating Biological and Clinical Discoveries Using The Prostate Cancer Transcriptome Atlas Sungyong You PhD, Assistant Professor in Surgery and

Biomedical Sciences at Cedars-Sinai Medical Center

Minhyung Kim Ph.D., a Post-doctoral fellow in Surgery and Biomedical Sciences at Cedars-Sinai Medical Center, Junhee Yoon M.S., a Software engineer in Surgery and Biomedical Sciences at Cedars-Sinai Medical Center, Jayoung Kim Ph.D., Associate Professor in Surgery and Biomedical Sciences at Cedars-Sinai Medical Center, Michael R Freeman Ph.D., Professor in Surgery and Biomedical Sciences at Cedars-Sinai Medical Center

https://drive.google.com/open?id=1TMy6PR HtoHrZ6VM6msT wfFr-N5WFXb-

<u>PS1-58</u>

Upregulation of Androgen Receptor Splice Variants ,Äì an Inevitable Response to Androgen-Directed Therapies? Tianfang Ma, Graduate Student, Tulane University -Biomedical Sciences Graduate Program

Shanshan Bai, Graduate student, Jinlin University - College of Life Science; Nathan Ungerleider, Postdoc Fellow, Tulane University - Dpt. Pathology; Yang Zhan, Associate Professor, Jinlin University - College of Life Science; Yan Dong, Professor, Tulane University - Dpt. Structural and Cellular Biology; Erik Flemington, Professor, Tulane University - Dpt. Pathology https://drive.google.com/open?id=1cjsCmTM47A7Dn cUkII5k8 trU4wWYYC8

<u>PS1-59</u>

Developing New Bone Metastasis Models through Tissue-Engineering and Microfluidics

Bethany Kerr, Ph.D., Assistant Professor, Wake Forest School of Medicine

Koran Harris, Graduate Student, Chirayu Patel, Graduate Student, Alexander Jinnah, Graduate Student, Ellen Quillen, Assistant Professor, Arvind Chandrasekaran, Assistant Professor <u>https://drive.google.com/open?id=1AW8k9w_3D36OavxKr05Cb</u> <u>rn_2f4N-3gF</u>



<u>PS1-60</u>

MicroRNAs in metastatic lymph node as diagnostic tool for prostate cancer

Jenie Marian Cruz Burgos, PhD Student, Universidad Nacional Autonoma de Mexico

Dr. Jorge Gustavo Morales Montor PhD Student, Sergio Alberto Cortez Ramirez PhD student, Carlos David Cruz Hernandez Medical Student. Samantha Ivone Trujillo Bornios MSc., Alberto Losada Garcia PI. Mauricio Rodriguez Dorantes https://drive.google.com/open?id=1NpJ-_8I2h7f05zF1vBIEdFb2cx0DZd-z

<u>PS1-61</u>

WLS Promotes Cellular Viability and Resistance to Enzalutamide in CRPC

Alan P Lombard, PhD, University of California, Davis

Chengfei Liu, MD PhD, Cameron M Armstrong, PhD, Leandro S D'Abronzo, PhD, Wei Lou, MD, Christopher P Evans, MD, Allen C Gao, MD PhD

<u>https://drive.google.com/open?id=1WzM7hLTaDyYF-</u> eyj ILdzqc BtDJwEfV

<u>PS1-62</u>

Metabolic Re-wiring in African-American Prostate Cancer: A Role for Adenosine-Inosine Axis in Tumor Progression Christy Charles, Graduate Student, Baylor College of Medicine

Jie Golkhe, Baylor College of Medicine, Stacy Lloyd, Baylor College of Medicine, Uttam Rasaily, Baylor College of Medicine, James Henderson, University of Michigan, Balasubramaniam Karnam, Tuskegee University, Nora Navone, MD Anderson Cancer Center, Rick Kittles, City of Hope Comprehensive Cancer Center, Stefan Ambs, National Cancer Institute, George Michaelidis, University of Florida, Nagireddy Putluri, Baylor College of Medicine, Arun Sreekumar, Baylor College of Medicine

<u>https://drive.google.com/open?id=1bxWJJKZBdyHXNg_hE7jU0</u> <u>ehpjNabcCG</u>

PS1-63

Plk1 inhibition enhances the efficacy of BET epigenetic reader blockade in castration-resistant prostate cancer Fengyi Mao, Graduate student, University of Kentucky

Fengyi Mao, Dr. Jie Li, Ruixin Wang, Yifan Kong and Dr. Xiaoqi Liu

https://drive.google.com/open?id=1yplcw-nw85Vejho4PFNfipH6PE3zJxQ

<u>PS1-64</u>

Urinary Bacteria Meet Heme Metabolism at the Bladder Surface

Jonathan Barasch MD PhD, Columbia University

Tian Shen PhD; Katherine Xu PhD; Yuanji Li BA; Ali Gharavi MD; Anne Catrine Uhleman MD PhD; Cathy Mendelsohn PhD https://drive.google.com/open?id=1K5wq_Qv2Sptns0bLyy1lhJ 60Gv4SRIf3

<u>PS1-65</u>

Characterization of Inflammatory Cells in Human Benign Prostatic Hyperplasia Renee E. Vickman, PhD, NorthShore University Health

System

Gregory M. Cresswell, PhD, Nadia A. Lanman, PhD, Meaghan M. Broman, DVM, Omar E. Franco, MD, PhD, Brian T. Helfand, MD, PhD, Alexander Glaser, MD, Timothy L. Ratliff, PhD, and Simon W. Hayward, PhD

https://drive.google.com/open?id=1rpoMRCzbmF-PVFolocYN4zU4nafbR72u

<u>PS1-66</u>

p300 inhibition enhances the efficacy of programmed death-ligand 1 blockade treatment in prostate cancer Dr. Jinghui Liu, University of Kentucky

Dr. Daheng He, Dr. Lijun Cheng, Dr. Karrie Jones, Dr. Dana Napier, Dr. Eun Y. Lee, Dr. Chi Wang and Dr. Xiaoqi Liu https://drive.google.com/open?id=1XVC8q22rAwxxm5aZzeYdlB1QGrLxCqT

<u>PS1-67</u>

Cranberry's Role in the Prevention of Urinary Tract Infections

Jenaye Wanke, PA-S, University of Texas Medical Branch

Stacey Lopez, PA-S, Lailee Madani, PA-S, Rosalyn Velasquez, PA-S

https://drive.google.com/open?id=1KDC5uYCrMj77dr4slt1lq7 oxBaY8cG2c

<u>PS1-68</u>

Keratinocyte Growth Factor Blocks Radiation-Induced Cystitis

Rebecca A Georgiadis, University of Pittsburgh

Sridhar T Narla PhD, Caitlin M Schaefer MPH, Daniel Bushnell Carlton M Bates MD

https://drive.google.com/open?id=11UnFc8KDQ7aSQWCqe7F THI9n5x bIAJp



<u>PS1-69</u>

The stem cell inhibitor salinomycin decreases colony formation potential and tumor-initiating population in docetaxel-sensitive and docetaxel-resistant prostate cancer cells

Martina Gruber, MSc, Medical University of Innsbruck

Florian Handle, PhD, Zoran Culig, MD https://drive.google.com/open?id=1j5TqaWS4iPDgsEH8SVMrc vq_cfMgYgEM

<u>PS1-70</u>

FGF-P: A potential mitigator of radiation-induced GI damage

Lori Rice, Ph.D., University of Florida

Steven Swarts, Ph.D., Paul Okunieff, M.D., Dietmar W. Siemann, Ph.D., Bingrong Zhang, DVM, Ph.D., Zhenhuan Zhang, Ph.D., Ashantea Hope, Sharon Lepler

https://drive.google.com/open?id=1FY_pO83ChJ_u6bZOw5Fw SxHUdMRXYtS9

<u>PS1-71</u>

PRMT5 cooperates with plCln to function as a master epigenetic activator of DNA double-strand break repair genes

Jake L. Owens, Purdue University

Elena Beketova, Dr. Sheng Liu, Samantha L. Tinsley, Andrew M. Asberry, Xuehong Deng, Dr. Jiaoti Huang, Dr. Chenglong Li, Dr. Jun Wan, Dr. Chang-Deng Hu

https://drive.google.com/open?id=1DpIKz9VgzNnt11k1uRPsN uGltThrTnec

<u>PS1-72</u>

KGF reduces injury and accelerates recovery of bladder urothelium after cyclophosphamide

Sridhar T. Narla, PhD, University of Pittsburgh

Daniel S. Bushnell, Caitlin M. Schaefer, MPH, Medhi Nouraie, MD, PhD, Carlton M. Bates, MD

https://drive.google.com/open?id=1gCqtuQZ49 vd1PtJDefZF-WxCvtGO0Z

<u>PS1-73</u>

Prostate cancer cell phenotypes are stable following PDE5 inhibition in the clinical range but antagonized by supraphysiological concentrations.

William Hankey, Ph.D., Duke University

Benjamin Sunkel, Ph.D., Zhong Chen, Ph.D., Xiaolong Cheng, Ph.D., Jennifer M. Thomas-Ahner, Ph.D., Jeff Groth, B.A., Yue Zhao, M.D., Victor X. Jin, Ph.D., Steven K. Clinton, M.D., Ph.D, Jiaoti Huang, M.D., Ph.D., Qianben Wang, Ph.D. https://drive.google.com/open?id=1uN1ePGj6pPfCfjpssjlFGN41 kqoz-qMv

<u>PS1-74</u>

Overall Survival in Patients with Metastatic Prostate Cancer: Role of Statins and PSA Nadir after Androgen Deprivation Therapy

Salma Siddiqui M.D.

Blythe P. Durbin Johnson, Stanley Yap M.D., Ralph W. deVere White M.D., Paramita Ghosh PhD. https://drive.google.com/open?id=1fkv_nm1I27KJ-W0glakgkAM3Gd7El_ai

<u>PS1-75</u>

CRISPRi screen of risk-associated cis-regulatory elements reveals 3D genome dependent causal mechanisms in prostate cancer

Housheng Hansen He - Senior Scientist/Associate Professor, Princess Margaret Cancer Centre

Musaddeque Ahmed - Postdoctoral Fellow, Fraser Soares -Postdoctoral Fellow, Jihan Xia - Graduate Student, Gonghong Wei - Full professor

https://drive.google.com/open?id=1rE1IJTBTkXVZYIEWt 5HCni z9pySqVRV

<u>PS1-76</u>

GATA-2 and Twist-1 as Targets of CREB-1 in Prostate Cancer Development

Kasturi Banerjee, Assistant Scientific Investigator, University of Arizona Cancer Center

McLane Watson, Student, Penny Berger, Technician, Cindy Miranti, Professor/ Principal Investigator https://drive.google.com/open?id=1kldHAQy4d8KdqlwO6pu4RiZnBSe9fTF

<u>PS1-77</u>

The critical role of Interleukin-8 chemokine axis in the development of benign prostatic hyperplasia (BPH) Diandra K. Smith, MPH, Research Associate, Augusta University

Natasha Venugopal, BS Medical Student (MS2), Martha K. Terris, MD, Chief of Urology, Professor Vinata B. Lokeshwar, PhD, Department Chair Professor Bal L. Lokeshwar, PhD https://drive.google.com/open?id=1nhAhbAPK8N74Zz87G-7zapN6VE wJKNG

<u>PS1-78</u>

Defining the Androgen Receptor-dependent transcriptome in bladder tumor cells

Maria Mudryj, University of California, Davis

Kimberly D. Katleba, Ph.D., Christopher A. Lucas, Clifford Tepper, Ph.D., Paramita Ghosh, Ph.D., Maria Mudryj, Ph.D. https://drive.google.com/open?id=18BZC2uWExK1iZGDbLsws 9DmNzp3IVLiT



<u>PS1-79</u>

Snail Promotes Neurite Outgrowth in Prostate Cancer Cells Gabrielle Edwards, Clark Atlanta University

Janae Sweeney, Veronica Henderson, Valerie Odero-Marah https://drive.google.com/open?id=1VtxoBaUvj5HDRsVilk7h5o 62NdaxCe8J

<u>PS1-80</u>

Inducible prostate luminal epithelial cell-specific deletion of Cdh1 induces murine prostatic hyperplasia and inflammation and bladder overactivity

Laura E. Pascal, PhD, University of Pittsburgh School of Medicine

Shinsuke Mizoguchi, MD; Marcelo Carratino, PhD; Rajiv Dhir, MD; Wei Chen, PhD; Ke Wang, BS; Daniel Metzger, PhD; Pierre Chambon, PhD; and Zhou Wang, PhD

https://drive.google.com/open?id=1mvnjsmESMACAPQePYp0j XWjH4J1JpMxe

<u>PS1-81</u>

Foxa1 expression is required for maintenance of superficial umbrella cells in the urothelium Lauren Shuman, MS, Penn State University

Jenna Buckwalter, Thomas Wildermuth, Klaus Kaestner, Cathy Mendelsohn, David DeGraff

https://drive.google.com/open?id=1uyrGR1axvbJg3ICpYKNC8 bX36TIW5IfE

<u>PS1-82</u>

Modeling cisplatin resistance in testis cancer with the zebrafish

John T Lafin, PhD, University of Texas Southwestern Medical Center

Dreaux Abe, Murtaza Ahmed, Anna Savelyeva, PhD, Douglas W Strand, PhD, James F Amatruda, MD, PhD, Aditya Bagrodia, MD https://drive.google.com/open?id=1v7DBKIIqdss8jTbP_sI5me8 MJT-XHsal

<u>PS1-83</u>

Bladder cancer metabolomics identifies important differences in lipid metabolites between metastatic and non-metastatic tumors

Maria-Malvina Tsamouri, DVM, MSc, PhD student, UC Davis

Marc A. Dall,ÄEra MD, Shamira Sridharan PhD, Blythe P. Durbin-Johnson PhD, Sili Fan PhD, Paramita M. Ghosh PhD https://drive.google.com/open?id=14xDuce9UkgHiSUtl7hWsa P8HTWkWz9Ot

<u>PS1-84</u>

Androgen deprivation promotes neuroendocrine prostate cancer by activating Wnt/β-Catenin signaling Siyuan Cheng, Graduate Assistant-Research, LSUHSC-Shreveport

Shu Yang, Research Associate, Zachary Connelly, Ph.D., Xiuping Yu, Associate Professor

https://drive.google.com/open?id=1-XvT2Bgj8-7-JRIbdqC3c7sZImWTNb50

<u>PS1-85</u>

Synergistic anticancer efficacy of simvastatin and metformin on enzalutamide resistant prostate cancer cells Eswar Shankar, Case Western Reserve University Che Jarvis, Sanjay Gupta, PhD

https://drive.google.com/open?id=1Q3dt3YIN9JI63O8ng5ZaaK E0JGjamq77

<u>PS1-86</u>

Interaction between cancer cells and bone microenvironment in the bone metastatic progression of prostate cancer

Renjie Jin, MD. PhD, Vanderbilt University Medical Center Tom Case, BS; Marisol Ramirez-Solano, MS; Alyssa Merkel, MS; Xinchun Zhou, MD. PhD; Qi Liu, PhD; Julie A. Rhoades, PhD https://drive.google.com/open?id=11pwE-GY7iqzidFDuSIYfiZB7blkObAGe

<u>PS1-87</u>

Extranuclear Nucleolin Induces ITGα6 expression in Prostate Cancer Independent of Androgen Receptor Elsa Merit Reyes-Reyes, University of Arizona *Sara Moore, and Cindy K. Miranti*

https://drive.google.com/open?id=1nK0QghqIf9FwvQnWDqox Qa1M6PmR6UZp



<u>PS1-88</u>

Mechanism and Targeting the Hippo/YAP and NF-Kappa B/RELA Axis in Prostate Cancer Cells

Bekir Cinar, Ph.D., Associate Professor, Center for Cancer Research and Therapeutic Development and Department of Biological Sciences, Clark Atlanta University; Winship Cancer Institute, Emory University

Elijah Said-Bandy, Undergraduate Student, Center for Cancer Research and Therapeutic Development, Clark Marwa Al-Mathkour, PhD Student, Center for Cancer Research and Therapeutic Development and Department of Biological Sciences, Atlanta University; Carlos S. Moreno, PhD. Associate Professor, Department of Pathology and Laboratory Medicine and Biomedical Informatics, Emory University School of Medicine, Winship Cancer Institute, Emory University, Atlanta, Georgia

https://drive.google.com/open?id=105 x3vnYFzBrkJWF5L4mE A6xYBKyovsn

<u>PS1-89</u>

Studying Nanoparticle targeting to Prostate Cancer by using Quantum dot Antibody conjugate

Amarnath Mukherjee, Albert Einstein College of Medicine Augene Park, Mark Schoenberg & Kelvin Davies https://drive.google.com/open?id=1VEKjY9z9Gdr69qEsUM7zu TcsmmR0nH8E



SBUR 2019 Annual Meeting – New Orleans, LA Poster Session #2 Saturday, November 9, 2019 | 5:00–7:00 PM

PS2-01

Prostate tumor-derived GDF11 accelerates androgen deprivation therapy-induced sarcopenia Kent L. Nastiuk, Ph.D., Assistant Professor of Oncology, Department of Cancer Genetics & Genomics and Urology, Roswell Park Comprehensive Cancer Center, Buffalo, New York, USA

Chunliu Pan, Ph.D, Department of Cancer Genetics & Genomics, RPCCC, Neha Jaiswal, Ph.D., Department of Cancer Genetics & Genomics, RPCCC, Yanni Zulia, B.S., Department of Cancer Genetics & Genomics, RPCCC, Shalini Singh, Ph.D., Department of Cancer Genetics & Genomics, RPCCC, James L. Mohler, M.D., Department of Urology, RPCCC, Kevin H. Eng, Ph.D., Department of Biostatistics & Bioinformatics, RPCCC, Joe V. Chakkalakal, Ph.D., Departments of Pharmacology and Physiology, and Biomedical Engineering, University of Rochester Medical Center, Rochester, New York, USA, John J. Krolewski, M.D., Ph.D., Department of Cancer Genetics & Genomics, RPCCC

https://drive.google.com/open?id=1IsPcadsoMwtowy4I1d2eI2 r6ldYBGpWY

PS2-02

Determining the Roles of DNA Repair Gene Aberrations in Driving the Development and Progression of Prostate Cancer

Sander Frank, PhD, Fred Hutchinson Cancer Research Center

Dmytro Rudoy, Olga Klezovitch, PhD, Valeri Vasioukhin, PhD, Peter Nelson, MD

https://drive.google.com/open?id=1kBE5fmnxMyhPQbsSj4F6y HtJGvIOVOIU

PS2-03

Synthetic Lethal Metabolic Targeting of Androgen Deprived Prostate Cancer Cells with Metformin Bing Yang, PhD Researchers, .Department of Urology, University of Wisconsin-Madison

Shivashankar Damodaran, MD, Surgery resident. Department of Urology, University of Wisconsin-MadisonTarig A. Khemees, MD, Urologic Oncology Fellow, Department of Urology, University of Wisconsin-MadisonMikolaj J. Filon, MD Candidate, School of Medicine and Public Health, University of Wisconsin-MadisonAdam Schultz, BS, University of Wisconsin-MadisonJoseph Gawdzik, PhD, Department of Urology, University of Wisconsin-MadisonTyler Etheridge, MD, Department of Urology, University of Wisconsin-MadisonDmitry Malin, PhD, Sicentist, Department of Medicine, University of Wisconsin-MadisonKyle Richards, MD, Asistant Professor, Department of Urology, University of Wisconsin-MadisonVincent L. Cryns, MD, Professor, Department of Medicine, University of Wisconsin-MadisonDavid F. Jarrard, MD, Professor, Department of Urology, Carbone Comprehensive Cancer Center, Molecular and Environmental Toxicology Program, University of Wisconsin-Madison https://drive.google.com/open?id=1rp6D1kXkjlwvlJvbNuorsfJtWKh7ENP

PS2-04

Targeting activation of AMPK suppresses PCa proliferation by regulating lipogenesis with subsequent inhibition of AR expression and activity

Takuma Uo, PhD, University of Washington

Gayani Perera, PhD, Kayode K Ojo, PhD, Wes Van Voorhis, MD, PhD J. Dustin Maly, Ph,D, Cynthia Sprener PhD https://drive.google.com/open?id=1CcFTuWbEUNutcQ59aEN0 Wo K3yR1Vc9z

PS2-05

Investigating the Role of Rbl2 in Castration-Resistant Prostate Cancer

Jenna Giafaglione, University of California, Los Angeles Andrew Goldstein, PhD, Paul Boutros, PhD https://drive.google.com/open?id=1YO22Ju6leeRUPBorR4jc0E

<u>q3IUexkuRp</u>



PS2-06

Genetics features of Localized Prostate Cancer in African Americans

Naoya Nagaya, Rutgers Cancer Institute of New Jersey Jeffrey Rosenfeld, Geuntaek Lee, Isaac Kim https://drive.google.com/open?id=10UmAtvDRwqoUQaD8ggQog1eTMhvsddI

PS2-07

Sulfotransferase SULT2B1b inhibition potently stimulates the expression of immunomodulatory genes in prostate cancer cells

Jiang Yang, Ph.D., Purdue University

Renee E. Vickman Ph.D., Meaghan M. Broman, D.V.M. Sagar Utturkar, Ph.D., Nadia A. Lanman, Ph.D., Timothy L. Ratliff, Ph.D., Professor

https://drive.google.com/open?id=1ZiYNCHB04nUyDV6A3Mfe FWPl6j4x-clB

<u>PS2-08</u>

Modulation of the Prostate Tumor Microenvironment by Folate-mediated Targeting of Tumor Resident Myeloid Populations

Dr. Gregory Cresswell, Purdue University

Dr. Meaghan Broman, Rami Alfar Dr. Phillip S. Low, Dr. Timothy L. Ratliff

https://drive.google.com/open?id=1r5RGf_sAqZz4ArARjsO3wn r3hr6Xw6jF

PS2-09

Putative tumor suppressor ELL2 is required for proliferation and survival of AR-negative prostate cancer cells

Zhi Wang, MS, University of Pittsburgh

Laura E. Pascal, Ph.DUma R Chandran, Ph.D, Srilakshmi Chaparala, MSShidong Lyu, MS Hui Ding, Ph.DLin Qi, Ph.D, Zhou Wang, Ph.D

https://drive.google.com/open?id=14dvJQL0kyrmT2HyUpr49A KstaWUg36kZ

PS2-10

Novel Roles for Manganese Superoxide Dismutase Polymorphisms in Prostate Cancer

Janae D. Sweeney, Ph.D. Student, Clark Atlanta University

Channing Paller, M.D.; Assistant Professor of Oncology and Urology- Johns HopkinsValerie Odero-Marah, Ph.D.; Associate Professor of Biological Sciences- Clark Atlanta University https://drive.google.com/open?id=1RGgt711GJK 03bV1cmrsO Es7HQjaSUmU

<u>PS2-11</u>

Neuroendocrine Marker improves the diagnosis of Prostate Cancer Johnmesha L. Sanders, University of Louisiana at Monroe Ajay Kale, Ph.D.Girish V. Shah, Ph.D. https://drive.google.com/open?id=1aDKlxh2yT619NSC7uZm6 5TMtk75Bn3wm

<u>PS2-12</u>

GWAS and CNV analysis Demonstrate Polygenic Determination of Vesicoureteral Reflux Miguel Verbitsky, Ph.D., Columbia University

Priya Krithivasan, MSc; Atlas Khan, PhD; Maddalena Marasa, MD; Byum hee Kil, MSc; Adele Mitrotti, MD; Matt G. Sampson, MD; Monica Bodria, MD; Loreto Gesualdo, MD; Giuseppe Masnata, MD; Francesco Scolari, MD; Rik Westland, MD; Joanna Van Wijk, MD; Marijan Saraga, MD; Domenico Santoro, MD; Pasquale Zamboli, MD; Craig S. Wong, MD; Enrico Fiaccadori, MD; Friedhelm Hildebrandt, MD; John M Darlow, MD; David E Barton, MD; Velibor Tasic, MD; Anna Latos-Bielenska, MD; Anna Materna-Kiryluk, MD; Krzysztof Kiryluk, MD; Simone Sanna-Cherchi, MD; Jonathan Barasch, MD PhD; Cathy Mendelsohn, PhD; Ali G. Gharavi, MD https://drive.google.com/open?id=1VEgWBqzjSQCoNxVqx-GHe7YqpeoeBbJX

<u>PS2-13</u>

SLX4IP is Essential for Telomere Maintenance in Neuroendocrine Prostate Cancer Tawna L. Whited, Department of Pharmacology, Case

Western Reserve University

Wisam N. Awadallah, Department of Urology, Case Western Reserve UniversityMagdalena M. Grabowska, Department of Urology, Case Western Reserve UniversityDerek J. Taylor, Department of Pharmacology, Case Western Reserve University https://drive.google.com/open?id=1ggsxIKbwfA2RjAh5MMz4d pa9bviki3D6

<u>PS2-14</u>

DNA methylation and DNA methyltransferases contribute to enzalutamide resistance in prostate cancer Elia Farah, PhD, Purdue University

Lijun Cheng, PhD. Tim Ratliff, and PhD. Xiaoqi Liu https://drive.google.com/open?id=1fewPCo9ShckgqieOukvL p OsPPdoczOI



<u>PS2-15</u>

Inhibition of EphB4 overwhelms enzalutamide resistance by antagonizing the amplification of AR Chaohao Li, University of Kentucky

Dr. Xiaoqi Liu https://drive.google.com/open?id=1D1FXbVLDkJDMShS0dQ9 7bPWriO--t8qV

<u>PS2-16</u>

Immune Cell Interactions in Benign Prostatic Hyperplasia Meaghan M Broman D.V.M., Purdue University

Nadia A Lanman Ph.DRenee E Vickman Ph.DSimon W Hayward Ph.DGervaise Henry M.S.Douglas W Strand Ph.DTimothy L Ratliff Ph.D

https://drive.google.com/open?id=1ux78rTpGAyDrodlSlvRb8r C2Qnvulsho

<u>PS2-17</u>

Single Cell Analysis of Luminal Epithelial Cells in the Castrate Prostate Reveals a Unique Population of Candidate Luminal Progenitors Daniel Moline, University of Chicago

Dr. Donald Vander Griend

https://drive.google.com/open?id=1tEYs6uz5x2iNRNy1ZNQEO 42eAGBDQ8zo

<u>PS2-18</u>

African American prostate cancer stroma exhibits higher levels of secreted TGF-beta1 and overexpresses GARP but presents with more infiltration of cytotoxic CD8 (+) T cells Liankun Song, Department of Urology, University of California, Irvine

Shan Xu, Associated Professor of Pathology, Agrawal, Sudhanshu, Project Scientist, Farah Rahmatpanah, Project Scientist, Yuanjie Hu, Assistant SpecialistBeverly Wang, Professor of Pathology, Dan Mercola, Professor of Pathology, Michael Lilly, Professor of Medicine and Oncology, Anshu Agrawal, Associated Professor of Medicine and Immunology https://drive.google.com/open?id=1ECdS-YsZUbGyIBXkxxnYeH0hJ8y4kVn3

<u>PS2-19</u>

Mediating EGFR- and ERK-Dependent Enzalutamide-Resistance in Castration-Resistant Prostate Cancer Thomas M. Steele, UC Davis Medical Center

Maitreyee K. Jathal, Ph.D; Salma Siddiqui, M.D; Sisi Qin, Ph.D; Xubao Shi, Ph.D; Dr. Clifford G. Tepper, Ph.D; Ralph W. deVere White, M.D; Manish Kohli, M.D; Liewei Wang, M.D, Ph.D; Allen C. Gao, M.D. Ph.D; Paramita M. Ghosh, Ph.D https://drive.google.com/open?id=1rU915o-QYmvHBB37QASfb2HTYKx7kSLU

<u>PS2-20</u>

Radiation cystitis modeling: a comparative study of radiation induced bladder fibrosis in different mouse strains

Laura E. Lamb, PhD, Beaumont Health/ Oakland University William Beaumont School of Medicine

Bernadette M.M. Zwaans, PhD; Kyle A. Wegner, BS; Sarah N. Bartolone, MS; Chad M. Vezina, PhD; Michael B. Chancellor, MD; Laura E. Lamb, PhD

https://drive.google.com/open?id=1sBGN6 rPlxtiCN2mfbsGQv yWNeWqMHVZ

<u>PS2-21</u>

Low concentration BPA, BPS and BPF exposure: genotoxic effect in prostate cancer.

Sergio Alberto Cortes Ramirez, PhD student, Universidad Nacional Autonoma de Mexico (UNAM)

PhD Ana Maria Salazar Martinez , PhD Martha Patricia Ostrosky, Shejet , BS Laura Daniela Palomino Navarrete PhD student Jenie Marian Cruz Burgos , PhD student Carlos David Cruz Hernandez, PhD student Alberto Lozada Garcia, PhD Mauricio Rodriguez Dorantes 1.

https://drive.google.com/open?id=1OAkKO-60abSUvXy7zQADnd0E tCLvEaf

<u>PS2-22</u>

Combination therapy of cisplatin and siRNA GP130 impacts a DNA repair mechanism in bladder cancer Darryl T. Martin, PhD, Research Scientist, Yale University Shanshan He, MD, Visiting Scholar, Yale University; Gang Li, PhD, Visiting Graduate Student, Yale University; Andreas G. Sch√§tzlein, PhD, Professor of Translational Therapeutics, UCL School of Pharmacy; Robert M. Weiss, MD, Donald Guthrie Professor of Urology, Yale University; and Ijeoma F. Uchegbu, PhD, Professor of Pharmaceutics, UCL School of Pharmacy https://drive.google.com/open?id=1DaiapmmmXOT vcMf2m Qnge2cfaUBooCD

<u>PS2-23</u>

Sprr2f quenches ROS to protect against ischemiareperfusion injury in the mouse kidney Kieu My Huynh, M.S, Stanford University, Department of UROLOGY

Marc Horschman, B.S, Bo Wu, PhD, Anny Wong, PhD, Rosie Nolley, B.S, Hongjuan Zhao PhD, James D. Brooks, MD, Principal Investigator

https://drive.google.com/open?id=1uWDuDfTy6Zbce2z2pa2Bt sk3tJmYYNfS



<u>PS2-24</u>

Targeting telomere DNA damage for CRPC therapy Sahn-ho Kim, Assistant Scientist, Henry Ford Health System

Vidyavathi Reddy, Asm Iskander, Clara Hwang, Evelyn R. Barrack, G. and G. Prem-Veer Reddy https://drive.google.com/open?id=1mgfu7C4OdU64nWwqNr OC 9QoqTrTbDv1

<u>PS2-25</u>

Arsenic Disturbs Prostate Stem-progenitor Cells Homeostasis by Activation of NRF2 Pathway Dan-Ping Hu, MD, University of Illinois

Lishi Xie, PhD; Wen-Yang Hu, PhD, MD; Dan-Ping Hu, MD; Ye Li, BS; Lynn Birch, MS; Gail S. Prins, PhD https://drive.google.com/open?id=1EwYxnvf_ZGHj8zW7ynW4U0tgHfZAY5Y

PS2-26

Bone-resident neutrophils are mediators of prostate cancer growth in bone

Leah M. Cook, PhD, University of Nebraska Medical Center Diane Costanzo-Garvey, Tyler Keeley, PhD, Adam Case, PhD,

Leah M. Cook, PhD https://drive.google.com/open2id=137KebDW/TT5D8v/ww/PL

https://drive.google.com/open?id=13ZKehDWTT5D8v4wwRuw aHBeYXdrw-6tP

<u>PS2-27</u>

Modulating HSP70/STUB1 machinery by novel small molecules overcomes enzalutamide resistance in lethal prostate cancer

Chengfei Liu, MD, PhD, University of California, Davis

Wei Lou, MD, Joy C. Yang, PhD, Shu Ning, MS, Cameron M. Armstrong, PhD, Alan P. Lombard, PhD, Leandro S D'Abronzo, PhD, Clifford Tepper, PhD, Pui-Kai Li, PhD, Christopher P. Evans, MD, Allen C. Gao, MD, PhD

https://drive.google.com/open?id=1rVBvgdRE0wncBP5Cj7XLIT0SsNnVHS2

PS2-28

The Trained Immunity-like Epigenetic Memory in Urinary Tract Infection

Chunmin Guo, Boston Children's Hospital, Harvard Medical School

Mingyi Zhao, Songhui Zhai, Xinbing Sui, Zarine Balsara, Hyunwoo Kwon, Zihai Li and Xue Li

https://drive.google.com/open?id=18Bo3dgSC2cCzPa7wk1MA Dq1k7MmGIFTu

<u>PS2-29</u>

Urine extracellular vesicle GATA2 mRNA alone and in a multigene test predicts initial prostate biopsy result Sandra Santasusagna, PhD, Thomas Jefferson University Jungreem Woo, Joshua Banks, Ana Dominguez-Andres, Kamlesh Yadav, Raffaella Pippa, Marc Carceles-Cordon, Robert B. Den, Karen E. Knudsen, Lucia Languino, Costas D. Lallas, Grace Luyao, Veronica Rodriguez-Bravo, Ashutosh Tewari, W. Kevin Kelly, Benjamin E. Leiby, Josep Maria Prats7, Leonard Gomella, Josep Domingo-Domenech

https://drive.google.com/open?id=18UjginP18qqYAgkQumIPz tWCutUHGH8z

<u>PS2-30</u>

Loss of CHD1 promotes chromatin dysregulation leading to heterogeneous mechanisms of resistance to hormone therapy in prostate cancer

Ping Mu, Assistant Professor, UT Southwestern Medical Center

Zeda Zhang1,3*, Chuanli Zhou2,*, Xiaoling Li2,*, Spencer Barnes4, Su Deng2, Elizabeth Hoover1, Chi-Chao Chen5,6, Young Sun Lee1, Choushi Wang2, Carla Tirado2, Lauren Metang2, Yanxiao Zhang7, Nick Johnson2, John Wongvipat1, Kristina Navrazhina6, Zhen Cao1,6, Danielle Choi1, Chun-Hao Huang5,6, Eliot Linton1, Dapeng Yun2, Xiaoping Chen8, Yupu Liang9, Christopher E. Mason10,11, Elisa de Stanchina8, Wassim Abida13, Amaia Lujambio14, Sheng Li15, Scott W. Lowe5, 16, Venkat Malladi4, Charles L. Sawyers1,16,,Ä⁺, Ping Mu2.17.18.19.Ä⁺¹. Human Oncoloav and Pathoaenesis Program, Memorial Sloan Kettering Cancer Center, New York, NY 10065, USA2. Department of Molecular Biology, UT Southwestern Medical Center, Dallas, TX 75390, USA3. Louis V. Gerstner, Jr. Graduate School of Biomedical Sciences, Memorial Sloan Kettering Cancer Center, New York, NY 10065, USA4. Bioinformatics Core Facility of the Lyda Hill Department of Bioinformatics, UT Southwestern Medical Center, Dallas, TX 75390, USA5. Cancer Biology and Genetics Program, Memorial Sloan Kettering Cancer Center, New York, NY 10065, USA 6. Weill Cornell Graduate School of Medical Sciences, New York, NY 10021, USA7. Ludwig Institute for Cancer Research, La Jolla, CA, USA8. Department of Molecular Pharmacology, Memorial Sloan Kettering Cancer Center, New York, NY 10065, USA9. Center for Clinical and Translational Science, Rockefeller University, New York, NY 10065, USA10. Department of Physiology and Biophysics, Weill Cornell Medicine, New York, NY, USA11. The HRH Prince Alwaleed Bin Talal Bin Abdulaziz Alsaud Institute for Computational Biomedicine, Weill Cornell Medicine, New York, NY, USA12. The WorldQuant Initiative for Quantitative Prediction, Weill Cornell Medicine, New York, NY, USA13. Department of Medicine, Memorial Sloan Kettering Cancer Center, New York, NY 10065, USA14. Department of Oncological Sciences, Icahn School of Medicine at Mount Sinai, New York, NY 10029, USA15. The Jackson Laboratory for Genomic Medicine, Farmington, CT 06032, USA.16. Howard



Hughes Medical Institute, Chevy Chase, MD 20815, USA17. Hamon Center for Regenerative Science and Medicine, UT Southwestern Medical Center, Dallas, TX 75390, USA18. Harold C. Simmons Comprehensive Cancer Center, UT Southwestern Medical Center, Dallas, TX 75390, USA19. https://drive.google.com/open?id=1jg2zSe7ejaUOVnDU3Fhhg

grXwGvxQt44

<u>PS2-31</u>

Single Cell Investigation of Patient-Derived Prostate Organoids Reveals Differentiation Protocol Involving Epithelial Integrin Expression Supported by Stromal Collagen

Tara McCray, University of Illinois at Chicago Larisa Nonn, PhD https://drive.google.com/open?id=16tg4RMU2lxw-96XmaCJqUj8J8duKfWkA

<u>PS2-32</u>

Vitamin D Inhibits DKK3 To Promote Human Prostate Organoid Differentiation

Tara McCray, University of Illinois at Chicago *Larisa Nonn, PhD, Bethany Baumann, PhD*

https://drive.google.com/open?id=1Q45HNEAdliZaNIIIyS_T_RKeZgBNVKE

PS2-33

Extragonadal androgen biosynthesis associated with variant HSD3B1 (A1245C) allele modulates radiosensitivity in Prostate Cancer cells

Omar Mian, MD, PhD, Cleveland Clinic Foundation

Shinjini Ganguly (PhD), Aysegul Balyimez (PhD), Zaeem Lone (BA), Aimalie Hardaway (PhD), Monaben Patel (MS), Elai Davicioni (PhD), Rahul Tendulkar (MD), Eric Klein (MD), Nima Sharifi (MD), Omar Mian (MD,PhD)

https://drive.google.com/open?id=1K8nEjDK0pf_fXMYwmrXPI ma4dqVBKKJb

<u>PS2-34</u>

An orthotopic murine neuroendocrine bladder cancer model offers insights into the phenotypic plasticity of small cell bladder cancer (SCBC)

Omar Y. Mian, M.D., Ph.D, Assistant Professor, Cleveland Clinic

Aysegul Balyimez, Shinjini Ganguly, Sita Laximi, Petros Grivas, Moshe Ornstein, Shilpa Gupta, Byron Lee, Chris McFarland, Monte Winslow, Jesse McKenney

https://drive.google.com/open?id=1cLWAfcFzPk77Bj0DjUtOQl HBeAjtUTdm

<u>PS2-35</u>

NAD+ metabolism as a potential vulnerability in neuroendocrine prostate cancer Johnny A. Diaz, UCLA Preston D. Crowell, Takao Hashimoto M.D., Ph.D, Andrew S. Goldstein Ph.D <u>https://drive.google.com/open?id=191Ugl --</u> <u>UQ29N3HqnstAMHatlrnjJ9-h</u>

<u>PS2-36</u>

Downregulation of EPHB2 Increases Alterations in Lipid Metabolism Associated with Prostate Cancer Racial Disparities Omar Franco MD, PhD, NorthShore University Health System Alejandro Morales BS, Francesca Nardi MS, Susan Crawford MD, Simon Hayward PhD https://drive.google.com/open?id=1STer1-LepGkBGO xPMHD3HPRJhgWF-Qp

<u>PS2-37</u>

Role of polyamine metabolism in prostate cancer therapy resistance Nagalakshmi Nadiminty, PhD, University of Toledo Health Science Campus Sayani Bhattacharjee, Jonathan P. Doan, Jerred P. Pletcher, Rebecca Wynn https://drive.google.com/open?id=1tiKYUt3bDYRyawtY4dBQfd zb7A599O3g

<u>PS2-38</u>

BUB1B is a key component of an AR variant-regulated network in castration-resistant prostate cancer Kerry L. Burnstein, Professor and Chair, Molecular and Cellular Pharmacology, University of Miami Miller School of Medicine

Maria Julia Martinez, Post-doctoral Associate, Valeria A. Copello, Graduate Student, Rolando D.Z. Lyles, Graduate Student

https://drive.google.com/open?id=1qF LDVjLCDRd JS6JOIX8m fvLRL42fmo

<u>PS2-39</u>

Roles of retinoid signaling in the developing urothelium Gregory Wiessner, Columbia University Medical Center

Dr. Ekatherina Batourina, Dr. Carolina Rosselot, Dr. Chad Vezina, Kerry Schneider, Dr. Cathy Mendelsohn https://drive.google.com/open?id=1piIBADpfmu4aoEocTwh41 W5kUcnX77br

<u>PS2-40</u>

Role of SLCO1B3 Transporter in Prostate Cancer Cell Resistance to Cabazitaxel Chemotherapy Diane Begemann, University of Kentucky Natasha Kyprianou, PhD https://drive.google.com/open?id=155VxUOtdAwYuyOWvmA0Oxl8tzdler8g



<u>PS2-41</u>

PB-Csf1 is a novel mouse model for prostate inflammation Li Xin, University of Washington

Ohjoon Kown, Boyu Zhang, Li Zhang, Xing Wei, and Li Xin https://drive.google.com/open?id=1RQEI5mCWAjwY56UUaUdgNe ocgOLfgd

<u>PS2-42</u>

Adipocyte-dependent lipid/MTOC dysregulation in the prostate tumor microenvironment: A microfluidic approach

Max Greenberg, Research Associate, NorthShore Univ. Research Institute, Affiliate of Univ. of Chicago Pritzker School of Medicine

Victoria Gil, Research Associate, John Day, Graduate Student, Univ. of Washington, Omar E. Franco, Research Scientist, Francesca Nardi, Research Scientist, Philip Fitchev, Research Associate, Simon W. Hayward, Director of Cancer Biology, Ashleigh Theberge, Assistant Professor, Univ of Washington, Susan E. Crawford, Professor of Pathology

https://drive.google.com/open?id=10NYHi hngP5zfU27pGRnx LhaGx0x8qLW

PS2-43

Targeting the WNT5A Receptor, ROR1, in Prostate Cancer Christina A.M. Jamieson, PhD. Associate Professor, Dept of Urology, University of California, San Diego (UCSD)

Sanghee Lee, Neurourology Fellow UCSD Urology, Danielle N Burner, Lab Technician, Theresa R Mendoza, MSc student, Michelle T Muldong, Senior Research Associate, Abril Zuniga, Undergraduate Albert Scholar, Catalina Arreola, Lab Technician, Christina N Wu, Senior Project Scientist, John J McDermott, Medical student and Albert Scholar, Rekha S Narasimhan, Medical student and Albert Scholar, SungKu Kang, Visiting Scholar, Catriona HM Jamieson, Professor, Nicholas A Cacalano, Associate Professor, Isaac Y Kim, Professor, Karl Willert, Professor, Terry Gaasterland, Professor, Anna A Kulidjian, Associate Professor, Rana Mckay, Assistant Professor, Christopher J Kane, Professor

https://drive.google.com/open?id=1omKJZK6IgY0PoUYzRPtI40 pKbX0vCInA

<u>PS2-44</u>

Interactions between prostate hormone levels, African ancestry, and gene expression patterns in stroma and epithelium

Bethany Baumann, PhD, University of Illinois at Chicago Julian Pacheco, Zachary Richards, PhD, Jason Garcia, Rick Kittles, PhD, Larisa Nonn, PhD

https://drive.google.com/open?id=1JygsKOx96Dj4MeUeUxU5 a0FVYZsc43nF

<u>PS2-45</u>

Resistance to AR Signaling Inhibition Does Not Necessitate Prostate Neuroendocrine Differentiation

W. Nathaniel Brennen, Johns Hopkins

Yezi Zhu2, Ilsa Coleman3, Susan Dalrymple1, Lizamma Antony1, Alan Meeker1,2,4, S. Lilly Zheng5, Jody E. Hooper4, Jun Luo2, Angelo De Marzo1,2,4, Eva Corey6, Jianfeng Xu5, Peter S. Nelson3,6, William B. Isaacs2, John T. Isaacs1,2,41Department of Oncology, Sidney Kimmel Comprehensive Cancer Center (SKCCC), Johns Hopkins University, Baltimore, MD 21205, USA. 2Department of Urology, James Buchanan Brady Urological Institute, Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA. 3Division of Human Biology, Fred Hutchinson Cancer Research Center, Seattle, WA 98109, USA. 4Department of Pathology, SKCCC, Johns Hopkins University, Baltimore, MD 21205, USA. 5Program for Personalized Cancer Care, North Shore University Health System, Evanston, IL, USA. 6Department of Urology, University of Washington, Seattle, WA 98195, USA

https://drive.google.com/open?id=1Dssdb3G_XSTCd6YHw5uH xZIYSPVo6jsZ

<u>PS2-46</u>

Integrin a6b1 super agonist overcomes drug resistance in castration-resistant prostate cancer by targeting laminin adhesion

Marina Cardo Vila, PhD, University of Arizona Cancer Center

Eric A. Nollet PhD, Sourik S. Ganguly PhD, Veronique V. Schulz BS, Scott Peterson PhD, Anne Cress PhD Eva Corey PhD, Cindy K. Miranti PhD

https://drive.google.com/open?id=1kgvHtASJ7cFjmie3f5BFSw Oz5IcRdB-3

<u>PS2-47</u>

The Role of IL33 in Microbial Induced Prostate Fibrosis Ashlee Bell-Cohn, Northwestern University

Praveen Thumbikat, PhD, DVM

https://drive.google.com/open?id=1B0J6AFfrts13SgjhEjz5de71 FVupyHNL



<u>PS2-48</u>

Characterization of the Metabolomic Profile of Prostate Cancer by Capillary Electrophoresis Mass Spectrometry of Urine

Andrew Gusev, BA, Massachusetts General Hospital

Alex Buko, PhD, Takushi Oga, PhD, Adam S. Feldman, MD, MPH, Leo L. Cheng, PhD

https://drive.google.com/open?id=1 Rsldh2XrYU8hRrgmX7Lw EWFk 9nvH3T

PS2-49

Effect of the SFRP1 protein on prostate cancer stem cells populations

Alberto Losada-Garcia, MSc., UNAM

Marian Cruz-Burgos, B.D., Sergio Cortes-Ramirez, QFB., Carlos Cruz-Hernanndez, MSc., Mauricio Rodriguez-Dorantes, Ph.D. https://drive.google.com/open?id=1La5cQeqj0ePwyWrPVA12 DoJHgFlhqWee

<u>PS2-50</u>

FOXA2 Promotes Prostate Cancer Growth in Bone Zachary M. Connelly, LSUHSC Shreveport

Renjie Jin2, Jianghong Zhang2, Shu Yang1, Siyuan Cheng1, Mingxia Shi3, Justin Cates4, Runhua Shi5, David J. DeGraff6, Peter S. Nelson7, Yunlong Liu8, Colm Morrissey9, Eva Corey9, Xiuping Yu1*1Dept of Biochemistry and Molecular Biology, 3Dept of Pathology, 5Dept of Medicine, LSU Health Sciences Center, Shreveport, LA2Dept of Urology, Vanderbilt University Medical Center, Nashville, TN4Dept of Pathology, Vanderbilt University Medical Center, Nashville, TN 6Dept of Pathology, Penn State College of Medicine, Hershey, PA7Fred Hutchinson Cancer Research Center, Seattle, WA 8Department of Biochemistry and Molecular Biology, Indiana University, Indianapolis, IN9Dept of Urology, University of Washington, Seattle, WA

https://drive.google.com/open?id=1cSxNunWkhgpSWEXgFah_ <u>RFfd96Fz6CwF</u>

PS2-51

Loss of CDCP1 promotes FAK activation in the detached state

Sara Pollan, PhD, Cedars-Sinai Medical Center Beatrice Knudsen, MD, PhD

https://drive.google.com/open?id=1U-lf6HzX1FiJdC-TZMR8qNChQYFpsXit

<u>PS2-52</u>

Androgen deprivation promotes neuroendocrine differentiation and angiogenesis through CREB-EZH2-TSP1 pathway in prostate cancers

Wenliang Li, Associate Professor, University of Texas Health Science Center at Houston

Yan Zhang, Dayong Zheng, Ting Zhou, Haiping Song, Mohit Hulsurkar, Zheng Wang, Shao Long, Ladan Fazli, Michael Ittmann, Martin Gleave, Wenliang Li

https://drive.google.com/open?id=1pNjZso80D0wvj AaYzTjitD g4IXla54G

<u>PS2-53</u>

Effect of radiation cystitis on urinary bladder mechanics Marissa Grobbel, Ph.D. Student in Mechanical Engineering at Michigan State University

Bernadette M.M. Zwaans, Elijah P. Ward, Laura E. Lamb, Department of Urology, Beaumont Health and Sara Roccabianca, Mechanical Engineering Professor at Michigan State University

https://drive.google.com/open?id=1ZzAaJfBl8unV4g1SRb7jKeFaT_BbkSr

<u>PS2-54</u>

Pharmacogenetic inhibition of afferent excitability alleviates VEGF-induced visceral allodynia and hyperalgesia in a mouse model of urological chronic pelvic pain syndrome (UCPPS)

Alison Xiaoqiao Xie, Ph. D. Instructor, Division of Urology, Department of Surgery, UC Denver

Randall B. Meacham, M.D., Professor, Chair of the Division of Urology, Department of Surgery, UC Denver; Anna P. Malykhina, Ph. D. Associate Professor, Division of Urology, Department of Surgery, UC Denver <u>https://drive.google.com/open?id=1Q-</u>

3B2wIm1cS3nBXkemOFheZoucTusxY-

PS2-55

Identification of multipotent prostate basal stem cells from single-cell RNA sequencing

Helen He ZHU, Professor, Shanghai Jiao Tong University

Xue Wang, Ph.D. candidate; Wei-Qiang Gao, Professor https://drive.google.com/open?id=1IfZo69sh0ux8iP1bK8ke2Bc sL7FxocCb



PS2-56



PRMT5 as a novel target for the treatment of castration-resistant prostate cancer

Elena Beketova, MS, Purdue University

2019 Travel Award Winner Jake Owens, BA, Xuehong DengChang-Deng Hu, PhD https://drive.google.com/open?id=1DbfnllP1o1aruAlEN6CrOIZ hUg8iJpfK

<u>PS2-57</u>

Transcription factor PROX1 drives neuroendocrine differentiation and cellular plasticity in prostate cancer Kaijie Wu, M.D., Ph.D., Associate Professor, Department of Urology, First Affiliated Hospital of Xian Jiaotong University

Ke Hui, M.D., Ph.D., Shiqi Wu, M.D., Ph.D. candidate Yanan Gu, M.D., Ph.D. candidate, Dalin He, M.D., Ph.D., Professor <u>https://drive.google.com/open?id=1MtlxXmfgzMlpvtVMnHVi</u> QAWVVU92Cw6O

<u>PS2-58</u>

Site Specific DNA Methylation Silences Forkhead Box A1 Expression in Advanced Bladder Cancer

Jenna M. Buckwalter, Ph.D., Penn State Hershey

College of Medicine 2019 Travel Award Winner

Lauren M. Shuman M.S., Thomas C. Wildermuth, Vonn Walter Ph.D., Joshua Warrick M.D., Xue-Ru Wu M.D., Jay Raman M.D., David J. DeGraff Ph.D.

https://drive.google.com/open?id=1w78Au9Dn_vRAwSrbFde7_ ossAkauoOfNCMHsdmNHe9k

<u>PS2-59</u>

A novel non-canonical EZH2 function as a chaperone to mediate box C/D snoRNP assembly

Yang Yi, Post-Doctoral Fellow, Northwestern

University

2019 Travel Award Winner

Qingshu Meng, Post-doctoral fellow; Qiaqia Li, Graduate Student; Kaifu Chen, Associate Professor; Wei Zhao, Professor; Qi Cao, Associate Professor

https://drive.google.com/open?id=1nl1YkYQGeImP_ThnfRN5y uf3r_vjOabW

<u>PS2-60</u>

Repression of Transcription Factor AP-2 Alpha by PPAR gamma Reveals a Novel Transcriptional Circuit in Basalsquamous Bladder Cancer

Hironobu Yamashita, Penn State Hershey Medical Center

Yuka I. Kawasawa, Lauren Shuman, Zongyu Zheng, Truc Tran, Vonn Walter, Joshua I. Warrick, Guoli Chen, Hikmat Al-Ahmadie, Matthew Kaag, Pak Kin Wong, Jay D. Raman, David J. DeGraff

https://drive.google.com/open?id=14Vr8VBYzdl3mogqhHBDfK kfRhIA6oqzM

<u>PS2-61</u>

N-Myc-mediated epigenetic reprogramming drives lineage plasticity in advanced prostate cancer Nicholas J. Brady, Weill Cornell Medicine

2019 Travel Award Winner

Adeline Berger, Rohan Bareja, Brian Robinson, Vincenza Conteduca, Michael A. Augello, Loredana Puca Adnan Ahmed, Etienne Dardenne, Xiaodong LuInah Hwang, Alyssa M. Bagadion, Andrea Sboner, Olivier Elemento, Jihye Paik Jindan Yu, Christopher E. Barbieri, Noah Dephoure, Himisha Beltran, David S. Rickman

https://drive.google.com/open?id=1PMzw1hlllgWHpFOT3xLG RssHO-kzCiHSPb84EvqR-H0

<u>PS2-62</u>

Fibroblast growth factor receptor 1 in reprograming cell metabolism in prostate cancer cells Fen Wang, Ph. D., Texas A&M University

Ms. Yuepeng Ke, Mr. Ziying Liu, Dr. Sheng Pan https://drive.google.com/open?id=1H8uVsFbTb6YnU0-Pb2Mio1r9r66yHL2b



PS2-63



Identification of cognate proximal cell types of the mouse and human prostate and their enrichment in human Benign Prostatic Hyperplasia

Diya Binoy Joseph, UT Southwestern Medical Center 2019 Travel Award Winner

Gervaise Henry, Department of Urology, UT Southwestern Medical Center, Alicia Malewska, Department of Urology, UT Southwestern Medical Center, Kyle Wegner, School of Veterinary Medicine, University of Wisconsin-Madison, Claus Roehrborn, Department of Urology, UT Southwestern Medical Center, Jeffrey Reese, Southwest Transplant Alliance, Dallas, Ryan Hutchinson, Department of Urology, UT Southwestern Medical Center, Chad Vezina, School of Veterinary Medicine, University of Wisconsin-Madison, Douglas Strand, Department of Urology, UT Southwestern Medical Center

https://drive.google.com/open?id=1ITiRG0nTLelg3jbaPjauH81 NI1ChnZC7w5-dG430Ql8

<u>PS2-64</u>

PBRM1 mutation develops a tumor-favoring microenvironment in renal cell carcinoma Shan Xu, M.D, The First Affiliated Hospital of Xian Jiaotong University

Katie Wu, ph.D, M.D, Lei Li, Ph.D, M.D https://drive.google.com/open?id=14wLaZCeX0LubAN8 QstU N7NP6GCfKDtx

PS2-65

FKHD-Mutant FOXA1 Promotes Androgen Independence and Prostate Cancer Progression

Xiaodong Lu, PhD, Northwestern University

Bohan Xu, PhD; Bing Song, PhD; Jung Kim, PhD; Ming Hu, PhD; Jonathan C. Zhao, PhD; Jindan Yu, PhD

https://drive.google.com/open?id=1pp7d5pNuZmFgQRh4v2v 9aciG6bUS0nBz

PS2-66



Eukaryotic translation initiation factor 4 gamma 1 (EIF4G1) is upregulated in PCa and promotes resistance to androgen deprivation therapy

Praveen Kumar Jaiswal, Postdoctoral Fellow, LSUHSC-Shreveport

2019 Travel Award Winner

Sweaty Koul, Kashyap Koul, Runhua Shi, Hari K Koul https://drive.google.com/open?id=12DpfPQlbKnERjQxJhig8yC XdQh9PeDyH

<u>PS2-67</u>

NOX4 is upregulated during PCa progression and plays a key role in hypoxic survival of PCa cells

Saikolappan Sankaralingam, LSUHSC-Shreveport

Binod Kumar, Sweaty Koul, Praveen Kumar Jaiswal, Hari K Koul https://drive.google.com/open?id=1sW1ac7HxCGMOxCE1NX w2qa9mqcs7BOTM

<u>PS2-68</u>

Androgen-sensitive differential expression of cytokines and growth factors in primary BPH stromal cells and normal adjacent stromal cells

Wei Chen, Ph.D, University of Pittsburgh

Laura E. Pascal, Ph.D, Zhou Wang, Ph.D, Rajiv Dhir, MD, Uma Chandran, Ph.D, Zhou Wang, Ph.D, Alex Chang https://drive.google.com/open?id=1Jj5p4K8EAMGjnDMltGVa0 NtNC6gnveA5

<u>PS2-69</u>

Effect of new AR-V7 inhibitor in enzalutamide resistant prostate cancer

Geun Taek Lee, Ph.D., Rutgers Cancer Institute of New Jersey

Naoya Nagaya, MD, Roy J. Vaz, Ph.D., Isaac Yi Kim, MD, Ph.D., MBA

https://drive.google.com/open?id=1ZSKVmYJNwpHFZh rjyFZr EGCN79vuHNM

PS2-70



Osteopontin exacerbates the inflammatory environment in the prostate

Madison Petra Popovics PhD, University of Wisconsin-

2019 Travel Award Winner

Wisam N. Awadallah BS, Sarah Kohrt BS, Thomas C. Case BS, Nicole L. Miller MD, Emily Ricke MS, Marisol Ramirez-Solano MS, Qi Liu PhD, Robert J. Matusik PhD, William A. Ricke PhD and Magdalena M. Grabowska PhD

https://drive.google.com/open?id=1M0AEITspc1Tci6gzup3X3V gsppNOJ2myGA7pXVIGxXg

<u> PS2-71</u>

Identification of genes that drive resistance to enzalutamide in castration-resistant prostate cancer cells Wisam Awadallah, Case Western Reserve University

Sarah Kohrt, Robert A. Philips, Renjie Jin, Xiuping Yu, Jianghong Zhang, Tom C. Case, Peter E. Clark, Robert J. Matsusik, Yajun Yi Philip D. Anderson, Magdalena M. Grabowska https://drive.google.com/open?id=1KxluUaH-

7zuyx4vylyJhf p00IQfW1Z1



<u>PS2-72</u>

Role of Estrogens in Fibrosis and Myofibroblast Phenoconversion of Prostate Stromal Cells Christian J. Ortiz Hernandez, Graduate Student, University of Wisconsin-Madison

William A. Ricke, UWMF Professor of Urologic Research and Director of the George M. O'Brien Center for Benign Urology Research

https://drive.google.com/open?id=10KVicFII6xMsCnE2LZIXTEG mUj-Ng-7S

PS2-73

Novel role of ketone body metabolism in acquired gemcitabine resistance

Krizia Rohena Rivera, PhD, Cedars Sinai Medical Center Neil Bhowmick, PhD

https://drive.google.com/open?id=1E aLKW-JT9hl K1yhc4g4zWz9rA2NoPV

<u>PS2-74</u>

Tumor Microenvironment Characterization in Bladder Cancer Identifies Prognostic and Immunotherapeutically Relevant Gene Signatures

Tianjie Liu, Department of Urology Research Institute, First Affiliated Hospital of Medical School, Xi'an Jiaotong University

Jin Zeng, Kaijie Wu, Yule Chen, Shan Xu

https://drive.google.com/open?id=11_YseSEJNxWv7i1fBgE8nvg Oot_NO45E

<u>PS2-75</u>

SPINK1 is associated with androgen independence in prostate cancer cells

Ikenna Madueke, MD., Ph.D., University of Illinois at Chicago

Wen-Yang Hu, MD.Ph.D,.Lishi Xie, Ph.D, Donald Vander Griend, Ph.D, Michael R. Abern, MD, Gail S. Prins, Ph.D.

https://drive.google.com/open?id=1mYvQENHblXWOoh3hOS g8esqdOWsN42kZ

PS2-76

Ferroptosis induction as a novel therapeutic approach for advanced prostate cancer

Ali Ghoochani, PhD, Department of Radiology, Canary Center at Stanford for Cancer Early Detection, Stanford University School of Medicine

Fernando Jose Garcia Marques, PhD. Abel Bermudez, BSc. Merve Aslan, MSc. Meghan A. Rice, PhD. En-Chi Hsu, PhD. Sharon J. Pitteri, PhD. Eva Corey, PhD. James D. Brooks, MD. Tanya Stoyanova, PhD.

https://drive.google.com/open?id=105S5XXbIXFkQnLmx116U nHHoSF4QJUNj

<u>PS2-77</u>

ONECUT2 and its Extremely Long 3,Äô-Non-coding Region Cooperate To Drive Aggressive Prostate Cancer Kenneth Steadman, Cedars-Sinai Medical Center

Sunyong You, PhD, Dustin Srinivas, PhD, Smrruthi V. Venugopal, PhD, Yiwu Yan, PhD, Hisashi Tanaka, PhD Wei Yang, PhD, Michael R Freeman, PhD https://drive.google.com/open?id=10EmNh-5zJHqj3if3NDjXXof46MOxmA7U

<u>PS2-78</u>

Notch3 promotes Prostate Cancer-Induced Bone Lesion Development by Modulating the Bone Microenvironment via MMP-3.

Sourik S Ganguly, University of Arizona

Galen Hostetter, Lin Tang, Sander B. Frank, Kathylynn Saboda, Rohit Mehra, Lisha Wang, Xiaohong Li, Evan T. Keller, and Cindy K. Miranti

https://drive.google.com/open?id=1RyZLvYIXrMs33l6FQi3fucbf8_AOleZ

<u>PS2-79</u>

CDK4/6 Pathway as Therapeutic Target for Bladder Cancer Ai-Hong Ma, Ph.D., University of California Davis

Roger Xia, Qilai Long, M.D., Hongyong Zhang, Ph.D., Zhixiu Cao, M.D., Tzu-Yin Lin Ph.D., DVM, Guru P. Sonpavde, M.D., Ralph de Vere White, M.D., Jianmin Guo, M.D., Chong-Xian Pan, M.D., Ph.D.

https://drive.google.com/open?id=1hLHZa8PfJrGZ71Cx 4kefo 4HTK7UTvrs

<u>PS2-80</u>

PBM nano-formulation inhibits hedgehog signaling in docetaxel-resistant prostate cancer Santosh Kumar Singh, Ph.D., Research Associate,

Morehouse School of Medicine

James W. Lillard Jr. Ph.D., Professor, Morehouse School of MedicineRajesh Singh, Ph.D., Associate Professor, Morehouse School of Medicine

https://drive.google.com/open?id=1rQ7AKLPPoaBsZiGTERCsq MDVU8qw-sAr



PS2-81

The Role of SOX2 in Promoting Enzalutamide Resistance in Castration-Resistant Prostate Cancer

Larischa de Wet, PhD Candidate, University of Chicago Anthony Williams, Postdoctoral Scholar, University of Chicago, Marc Gillard, Postdoctoral Scholar, University of Chicago, Steven Kregel, PhD Candidate, University of Chicago, Ryan Brown, Research Specialist, University of Illinois at Chicago, Sophia Lamperis, Technician, University of Illinois at Chicago, Gladell P. Paner, Pathologist, University of Chicago, Russell Z. Szmulewitz, Associate Professor of Medicine, University of Chicago, Donald J. Vander Griend, Visiting Associate Professor, University of Illinois at Chicago

https://drive.google.com/open?id=1toY9yuoMy5pTlkJBzX1C5 atCPHV0gZu9

PS2-82

The effects of autoimmune inflammation on androgen receptor signaling in adult prostate stem cells Paula O Cooper, Graduate Student, Purdue University

Hsing-Hui Wang, PhD, Department of Pediatrics, University of North Carolina at Chapel Hill, Chapel Hill, NC. Meaghan M. Broman, DVM, MS, DACVP, Department of Comparative Pathobiology, Purdue University, West Lafayette, IN. Gregory M Cresswell, PhD, Department of Comparative Pathobiology, Purdue University, West Lafayette, IN. Liang Cheng, MD, Pathology, Indiana University School of Medicine, Indianapolis, IN. Nadia Atallah Lanman, PhD, Department of Comparative Pathobiology, Purdue University, West Lafayette, IN, Purdue University Center for Cancer Research, Purdue University, West Lafeyette, IN. Travis Jerde, PhD, Pharmacology and Toxicology, Indiana School of Medicine, Indianapolis, IN. Bennett D Elzey, PhD, Department of Comparative Pathobiology, Purdue University, West Lafayette, IN, Purdue University Center for Cancer Research, Purdue University, West Lafeyette, IN. Timothy L Ratliff, PhD, Department of Comparative Pathobiology, Purdue University, West Lafayette, IN, Purdue University Center for Cancer Research, Purdue University, West Lafeyette, IN https://drive.google.com/open?id=16W2nuGp7haO9F Wsy8c OWzpA1SXYJ2Mt

PS2-83

Age-related Increased Incidence of Prostate Cancer was Revealed by a Spatially and Temporally Controlled Prostate-Specific Pten Knockout Mouse Model Generated through Adenovirus-Assisted In vivo Approach Sen Liu, Tulane University

Bing Zhang, Jiwen Hu, S. Michal Jazwinski, Qiuyang Zhang https://drive.google.com/open?id=10tXAefckikosA3YDyh4vb5 RNY5UE5tR7

<u>PS2-84</u>

Targeting GAPDH-related glycolysis in castration-resistant prostate cancers Haixia Xu, MD, PhD, KUMC

Benyi Li, MD, PhD

https://drive.google.com/open?id=17YUdiEGioY0m8hnbbq6_X aCWFmPnfMNP



HOTEL INFORMATION

859 Convention Center Boulevard New Orleans, LA, 70130-1754

Phone: 504-613-2888 Fax: 504-613-2890 Toll-free: +1 800-305-6342

www.marriott.com/hotels/travel/msymc-neworleans-downtown-marriott-at-the-conventioncenter/

Check In: 4:00 PM Check Out: 11:00 AM

A discounted rate for the Society for Basic Urologic Research Annual Meeting has been secured for your convenience at the New Orleans Downtown Marriott at the Convention Center, New Orleans, Louisiana.

Please use the following hotel booking link to gain access to the negotiated SBUR rate of \$160,00 per night for the meeting: https://book.passkey.com/ go/2019FallSBURAnnualMeeting

Important Note: Rooms are available on a firstcome first-served basis. It is advised that you book reservations at your earliest convenience. The room block may sell out prior to the cut-off date for reservations. Should this occur, SBUR is unable to guarantee additional reservations at this rate or hotel.

Airport:

Louis Armstrong New Orleans International Airport (MSY)

Airport Phone: +1 504-303-7500

This hotel does not provide shuttle service.

Transportation Services:

- Alternate transportation: Airport Shuttle (504) 522-3500; fee: 24 USD (one way); reservation required
- Estimated taxi fare: 33 USD (one way)
- Bus service, fee: 2.5 USD (one way)

Driving directions:

Turn left onto US-61 S/Airline Dr. Take the I-10 E ramp to US-90 BUS/Westbank, Keep left at the fork and merge onto I-10 E. Continue onto US-90 BUS W. Take exit 11C toward Tchoupitoulas St/S Peters St, Merge onto Calliope St. Turn left onto Convention Center Blvd. Destination will be on the left.

Fitness & Recreation

ACTIVITIES

Biking trail (1 mile) Boating (8 miles) Bowling (4.2 miles) Fly-fishing (1 mile) Horseback riding (76 miles) Jet-skiing (8 miles) Jogging/fitness trail (1 mile)

Miniature golf (12.5 miles) Sailing (8 miles) Squash (1.4 miles) Outdoor Courts (3.2 miles) Volleyball (8 miles) Water-skiing (8 miles)

GOLF

Bayou Oaks at City Park (8.4 miles) South Course North Course Audubon Park Golf Course (6 miles) Stonebridge Golf Club (8.5 miles) Oak Harbor Country Club (30 miles) Chateau Golf & Country Club (14.8 miles) TPC of Louisiana (14.8 miles) English Turn Golf & Country Club (10.3 miles)

FITNESS

Fitness Center Swimming Outdoor Pool (3rd Floor)

New Orleans Downtown Marriott at the Convention Center, New Orleans, Louisiana

Experience the unbridled energy and unique charm of The Big Easy when you stay at New Orleans Downtown Marriott at the Convention Center. Housed in a renovated 19th century cotton mill and bordering the Warehouse/Arts District, the CBD, the Garden District and the French Quarter, our four-star hotel successfully blends historic elegance with modern style. Intuitively designed rooms offer deluxe bedding, flat-screen



TVs and views of the river or city. Featured amenities include a gym, an outdoor pool, 24-hour room service and Wolfe's, our popular restaurant featuring Creole and French favorites. Our hotel is a prime destination for business travelers, thanks to our flexible event venues and our proximity to the New Orleans Ernest Morial Convention Center, across the street. With so many New Orleans attractions and the Arts/ Warehouse District at your fingertips, you'll never be short of things to do while you're here. Make plans for a remarkable stay at New Orleans Downtown Marriott at the Convention Center.

Parking:

- Off-site parking, fee: 10 USD hourly, 30 USD daily
- Valet parking, fee: 39 USD daily
- Valet parking unavailable for oversized vehicles. Contact hotel valet for questions on alternate self parking options.

Internet:

- Guest rooms: Wireless, Wired
- High Speed: Check email + browse the Web for 10.95 USD/day
- Enhanced High Speed: Video chat, download large files + stream video for 14.95 USD/day
- Lobby and public areas: Complimentary Wireless
- Meeting rooms: Wireless, Wired

Restaurants:

- Local restaurant dinner delivery
- Room service, 24-hour Sundry/Convenience store
- Breakfast Buffet, fee from 19,00 USD
- Continental breakfast, fee from 12.00 USD
- Full American breakfast, fee from 16.00 USD

Starbucks° Stop by for your favorite coffee drink and treats as you head out for sightseeing or to events at the convention center near our downtown hotel. Grab a pick-me-up in the afternoon to recharge for an evening of fun in New Orleans. Open for breakfast and lunch. Phone: +1 504-613-2888

Additional dining options available at www.marriott.com/hotels/hotel-information/ restaurant/msymc-new-orleans-downtown-marriott-at-the-convention-center/

Wolfe's (Creole) Get ready for a busy day in

New Orleans with an energizing breakfast at

our Warehouse District restaurant. Sample our

contemporary Creole and French fare for lunch or

Wolfe's Bar (American) Classic American and New

Orleans food and beverages. Open for lunch and

dinner or enjoy evening cocktails at our elegant

wine bar. Open for breakfast, lunch and dinner

Dress code: Casual Phone: +1 504-613-2888

dinner Dress code: Casual

Additional Local Area Attractions available at: www.marriott.com/hotels/local-things-to-do/msymc-new-orleans-downtown-marriott-at-the-convention-center/



The Society for Basic Urologic Research (SBUR) was formed in 1986 and is the pre-eminent US-based urologic research society. Our members include molecular and developmental biologists, oncologists, immunologists, epidemiologists, andrologists, biochemists, bioinformaticians, and clinical urologic surgeon-scientists from academia, industry and government. SBUR scientists' expertise includes the study of urologic cancers (prostate, bladder, kidney, testis, penis), the biology of benign diseases of the prostate, bladder and kidney, developmental biology, kidney and bladder function, autoimmune urologic diseases, infectious diseases, neuro-urologic diseases, male reproductive biology, infertility and erectile dysfunction.

SBUR was organized to:

- Provide a forum through the annual meeting for the presentation and discussion of basic, translational, and clinical scientific topics related to urology
- Promote advocacy and the interests of urologic disease investigators with national funding agencies, industry representatives and academic institutions with regards to urology related research
- Promote collaborations among member scientists and exchange of expertise between clinical and basic scientists
- Develop educational forums concerning scientific advancements related to the field of urology
- Serve as a resource for research information and expertise to clinical urologists through the American Urological Association and Urological societies worldwide.

SBUR is proud to offer our members outstanding scientific meetings in the Spring and Fall each year, and discounts to other meetings. Members are eligible for prestigious awards that include the Young Investigator Award, Eula and Donald S. Coffey Innovative Research Award, Trainee Travel Awards, Distinguished Service and Meritorious Achievement Award. We offer access to our network of experts for mentoring and career advice. Members also receive early access to job and fellowship opportunities.

Members are encouraged to contribute to sustain these important programs. If you wish to learn more or donate, please contact SBUR at (630) 463 -9015 or <u>sbur@affinity-strategies.com</u>. SBUR Is granted tax-exempt status by the Internal Revenue Service as a Section 501(c)(3) charitable/educational organization. All contributions are tax deductible. Tax ID# 36-3607930.



Save The Date!





121 West State Street Geneva, Illinois 60134 630.463.9015 sbur@affinity-strategies.com www.sbur.org

Follow SBUR

Facebook: @UrologySBUR Twitter: @UrologySBUR – #SBUR19 LinkedIn: Society for Basic Urologic Research