Curriculum vitae

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Name: Rajal B. Shah, MD

Dr. Charles T. Ashworth Professor of Pathology

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Education

Year	Degree (Honors)	Field of Study	Institution
1983		High School Diploma	C.N. High School, Ahmedabad, Gujarat, India
1988	MBBS	Medicine	B.J. Medical College, Gujarat University, Gujarat, India

Postdoctoral Training

Year(s)	Titles	Specialty/Discipline	Institution
1989	Clinical Internship	Medicine	Accredited Gujarat University Affiliated Hospitals, Gujarat, India
1994	Resident	Pathology & Microbiology	Gujarat Cancer and Research Institute, Ahmedabad, Gujarat, India
1999	Resident Physician	Anatomic and Clinical Pathology	St. John Hospital and Medical Center, Detroit, MI
2001	Fellow	Genitourinary & Surgical Pathology	University of Michigan, Ann Arbor, MI

Current Licensure and Certification

Licensure

Name of Board: USMLE Step I, USMLE Step II

Date of Certificate: 09/1993

Name of Board: ECFMG Certification

Date of Certificate: 09/1993

Name of Board: USMLE Step III

Date of Certificate: 05/1999

Name of Board: Diplomat (Board certification) of The American Board of Pathology in combined

Anatomic and Clinical Pathology

Date of Certificate: 11/1999

Name of Board: Medical Licensure Licensure State/Number: Texas / N4738 Date Issued: 11/06/2009

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
1992	1st position, M.D. Pathology & Bacteriology	Gujarat University
1999	Resident research presentation award	St. John Hospital and Medical Center, Detroit, MI
2000	Fellow	College of American Pathologists
2005	Co-chair, Proffered Papers: Genitourinary Pathology	United States and Canadian Academy of Pathology, San Antonio, Texas
2006	Who's Who in Medicine and Healthcare	Marquis
2006	Short course faculty	United States and Canadian Academy of Pathology
2006	Urologic Pathology Abstract Review Board	United States and Canadian Academy of Pathology National Meeting Program
2007	Cover article, senior author	Urology journal
2007	Judge	American Journal of Clinical Pathology Resident Research Symposium Competition, New Orleans, LA
2007	America's Top Physician	Consumer Research Council of America
2007	Inaugural American Association of Cancer Research (AACR) team science award for prostate cancer gene fusion work ("In recognition of the landmark discovery of recurrent gene fusions in a majority of prostate cancers, which has profound clinical and biological implications for understanding prostate cancers, and their embodiment of team science through	American Association of Cancer Research

	interdisciplinary and interinstitutional collaboration"),		
2007	Urologic Pathology Abstract Review Board	United States and Canadian Academy of Pathology Annual Meeting Program	
2007	Short course faculty	United States and Canadian Academy of Pathology	
2008	Cover article, senior author	Histopathology	
2008	Who's Who in World	Marquis	
2008	America's Top Physician	Consumer Research Council of America	
2008	Cover article, Co-senior author	Cancer Research	
2008	Short course faculty	United States and Canadian Academy of Pathology	
2009	Faculty	College of American Pathologist (CAP) Annual Meeting	
2009	Annual Diagnostic Pathology Update Course Faculty	United States and Canadian Academy of Pathology	
2009	Co-chair, Proffered Papers Genitourinary Pathology	United States and Canadian Academy of Pathology, Boston, MA	
2010	Annual Diagnostic Pathology Update Course Faculty	United States and Canadian Academy of Pathology	
2010	Co-chair, Proffered Papers	Genitourinary Pathology: United States and Canadian Academy of Pathology, Washington DC	
2010	Cover article, senior author	Human Pathology	
2011	Urologic Pathology Abstract Review Board (2nd 4-Year term)	United States and Canadian Academy of Pathology National Meeting Program	
2012	Lead Subject Matter Expert	CAP Advanced Practical Pathology Program in the prostate (AP3), Histologic variants, other carcinomas, and non-epithelial lesions of prostate	
2013	Excellence in service award	The Association of Indian Pathologists in North America (AIPNA)	
2014	Short course faculty for a 3-year term	United States and Canadian Academy of Pathology	
2014	Co-moderator, New Frontiers in Pathology	AIPNA-International Academy of Pathology (IAP), Bangkok, Thailand	
2014	Co-moderator, Pitfalls in GU pathology: The case that taught me a lesson	International Society of Urologic Pathologists – International Academy of Pathology, Bangkok, Thailand	
2016	Expert panel member	CAP reporting protocols for GU organ system	
2017	Faculty	CAP	
2018	Co-chair, Proffered Papers Genitourinary Pathology	United States and Canadian Academy of Pathology, Vancouver, Canada	
2019	Dr. Charles T Ashworth professorship in pathology	University of Texas Southwestern Medical Center, Dallas, Texas	
2021	President-Elect	Genitourinary Pathology Society (GUPS)	

Faculty Academic Appointments

Year(s)	Academic Title	Department	Academic Institution
11/1/2019-	Professor of Pathology	Pathology	UT Southwestern Medical Center, Dallas, TX
02/2017 – 10/2018	Clinical Associate Professor of Pathology	Pathology	Baylor College of Medicine, Houston, TX
09/2007 – 12/2009	Associate Professor of Pathology	Pathology	University of Michigan, Ann Arbor, MI
09/2007 – 12/2009	Associate Professor of Urology	Pathology	University of Michigan, Ann Arbor, MI
07/2004 – 10/2006	Director and Principal Investigator (PI), Tissue Core, Specialized Program of Research Excellence in Prostate Cancer (SPORE), NIH-Funded Program	Pathology	University of Michigan, Ann Arbor, MI
07/2001 – 08/2007	Assistant Professor of Pathology	Pathology	University of Michigan Hospitals, Ann Arbor, MI
07/2001 – 08/2007	Assistant Professor of Urology	Urology	University of Michigan Hospitals, Ann Arbor, MI
07/1993 – 05/1995	Lecturer	Department of Pathology	Gujarat Cancer & Research Institute, Ahmedabad, Gujarat, India

Appointments at Hospitals/Affiliated Institutions

<u>Past</u>				
Year(s)	Position Title	Department/Division	Institution	
10/2018 -10/2019	Staff Pathologist	Department of Pathology	Cleveland Clinic	
04/2017 -08/2018	Laboratory Medical Director	Urology	Baton Rouge Urology, Baton Rouge, LA	
01/2010 – 10/2014	Medical Director	Urologic Pathology	Inform Diagnostics (Previously Miraca Life Sciences), Dallas, TX	
07/2002 – 12/2009	Director, Urologic Pathology Fellowship	Anatomic Pathology, Department of Pathology	University of Michigan	
11/2006 – 12/2009	Co-Director, Tissue Core	Michigan Specialized Program of Research Excellence in Prostate Cancer (SPORE), NIH-Funded Program	University of Michigan	
07/2004 – 10/2006	Director, Tissue Core	Michigan Specialized Program of Research Excellence in Prostate Cancer (SPORE), NIH-Funded Program	University of Michigan	
Current				
Year(s)	Position Title	Department/Division	Institution	
11/2019-	Staff pathologist	Department Pathology	Clements University Hospital, Dallas, Texas	
11/2019-	Staff pathologist	Department Pathology	Parkland Hospital, Dallas, Texas	
07/2022-	Fellowship director, Genitourinary selective pathology	ACGME certified program, department of pathology	UT Southwestern Medical Center Dallas, Texas	

Major administrative/Leadership Positions

Year(s)	Position Title	Institution
03/2019-10/2019	Director	Genitourinary Pathology, Cleveland Clinic
10/2014- 10/2018	Vice President, Medical Director	Urologic Pathology Inform Diagnostics, Dallas, TX (Previously known as Miraca Life Sciences)
10/2004 –12/2009	Section Chief, Urologic Pathology	Anatomic Pathology, University of Michigan

Committee Service

Year(s)	Name of Committee	Institution/Organization
National/Internation	<u>onal</u>	
2001 – 2007; 2011 – 2019	Treasurer and Secretary	Association of Indian Pathologists in North America
03/2019 - Present	Secretary	Genitourinary Pathology Society(GUPS)
03/2019 – 03/2021	Chair, Membership, and Diversity Committee	Genitourinary Pathology Society (GUPS)
03/2021-	President-Elect	Genitourinary Pathology Society (GUPS)
10/2021-	Education committee member	Genitourinary Pathology Society (GUPS)
10/2021-	Education committee member	Texas Society of Pathology

Professional Societies

Dates	Society Name, member	
1996 – Present:	College of American Pathologists	
1997 – Present:	American Society of Clinical Pathologist	
1998 – Present:	United States and Canadian Academy of Pathology	
2001 – Present:	International Society of Urologic Pathology	
2002 – Present:	American Urological Association, Inc.	
2019 – Present:	Genitourinary Pathology Society	

Editorial Activities

Year(s)	Journal Name	
Editorial Board		
2020	Co-chief Editor, Path Presenter, High yield urologic pathology digital slide collection	
2014	Human Pathology	
2005	International Board of Advisers: Indian Journal of Pathology and Bacteriology (IJPM)	
2014	Gujarat Journal of Pathology and Microbiology	
Ad Hoc Review	<u>ver</u>	
	American Journal of Surgical Pathology	
	Archives of Pathology and Laboratory Medicine	
	BMC Cancer	
	Cancer	

Cancer Research
Clinical Cancer Research
Journal of Clinical Pathology
Journal of Histochemistry and Cytochemistry
Journal of Urology
Laboratory Investigation
Modern Pathology

Grant Support

<u>Present</u>	None
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Past	Grantor:	
2018	Co-Principal Investigator, Central Pathology Reviewer, Progenics, Phase III clinical trial evaluating the feasibility of imaging modality to determine clinically insignificant prostate cancer. (Ongoing extramural funded research), Ended 06/2018	
07/2003-05/2008	University of Michigan Prostate SPORE (Specialized Program for Research Excellence), \$251,033 – Co-Principal Investigator, Tissue and Serum Core Resource Grant -NIH- P50 CA69568 (Pienta)-07/01/2003-05/31/2008 - 2.4 calendar Inter prostate biomarker study (IPBS) – Principal Investigator, University of Michigan, (NIH funded pilot of biomarker validation) 0% salary support	
03/2005-03/2008	Molecular profiling of prostate cancer, Co-investigator, W81XWH-05-1-0173 (PI-A. Chinnaiyan), \$61,858 - 03/07/2005-03/06/2008 - 0.3 calendar	
07/2003-05/2008	Evaluation & Development of Non-peptide MDM2 inhibitors in the treatment of metastatic prostate cancer. Co-investigator, P50 CA069568 (PI-Pienta/Shaomeng Wang), \$150,000 – 07/01/2003-05/31/2008 - 0.6 calendar.	
07/2003-05/2008	Prostate Cancer Imaging for Radiation. Co-investigator, P50 CA069568 (PI-Piert), \$40,286-2% salary support, 07/01/2003-05/31/2008 - 0.24 calendar.	
07/2001-06/2004	Role of the Human Polyomavirus, BKV, in Prostate Cancer - Co-investigator, Department of Defense/ USAMRMC, DAMD17-01-1-0076 (M.J. Imperiale) - 7/1/2001-6/30/2004 - 5% salary support	
	ErbB Signaling in Prostate Cancer Progression - Co Investigator, DRDA 1234, UMCC 1234; CRC 1234E	
04/2001-03/2005	Analysis of 8P loss in Human Prostate Cancer – Co-Investigator, RO1, 5RO1 CA 60948-08, (J.A. Macoska, PI), 4/01/2001 to 3/31/2005 - 5% salary support.	

Teaching Activities

Year(s)	Activity
Medical and g	raduate school didactic and small group teaching
July 2001 – December 2009,	University of Michigan, Ann Arbor, MI
	1. Pathology Residents – Three didactic lectures, consult conferences, regular surgical pathology, and urological pathology sign-outs/year.

	2. Urology Residents - monthly conferences.	
	3. MS2 Medical Students - renal and reproductive sequence lectures.	
October 2018 – October 2019	Cleveland Clinic, Cleveland, OH	
	Pathology Residents – Regular genitourinary pathology sign-out service, 1 didactic conference, and 1 multi-head interactive microscopy session	
	Genitourinary Pathology Fellow – Regular genitourinary pathology sign-out service	
November 2019- present	Clements University Hospital, UT Southwestern Medical Center	
	Pathology Residents – Regular genitourinary pathology sign-out service, 1 didactic conference, and 1 multi-head interactive microscopy session	
	Genitourinary Pathology Fellow – Regular genitourinary pathology sign-out service	
2020-	YouTube Channel: "Rajal B. Shah, MD. Expert Urologic Pathology" Over 37 videos, over 3.4 K subscribers, 96000 views	
Post Graduate	student trainees	
07/2002 -06/2003	Lakshmi P. Kunju, M.D., Genitourinary Pathology Fellowship, University of Michigan, Ann Arbor, MI	
07/2003 -06/2004	Matthew Snyder, M.D., Genitourinary Pathology Fellowship, University of Michigan, Ann Arbor, MI	
07/2004 -06/2005	Nasir Bakshi, M.D., Genitourinary Pathology Fellowship, University of Michigan, Ann Arbor, MI	
07/2007 -06/2008	Angela Wu, M.D., Genitourinary Pathology Fellowship, University of Michigan, Ann Arbor, MI	
07/2008 -06/2009	Mathew Wasco, M.D., Genitourinary Pathology Fellowship, University of Michigan, Ann Arbor, MI	
07/2009 -12/2009	Jason Carvalho, M.D., Genitourinary Pathology Fellowship, University of Michigan, Ann Arbor, MI	
11/2019-06/2020	Sasan Setadooh, MD, Genitourinary Pathology Fellowship, UT Southwestern Medical Center, Dallas, TX	
07/2020-06/2021	Christopher Matter, MD, Genitourinary Pathology Fellowship, UT Southwestern Medical Center, Dallas, TX	
07/2021-06/2022	David Kim, Genitourinary Pathology Fellowship, UT Southwestern Medical Center, Dallas, TX	
07/2022-	Jing Sun, Genitourinary Pathology Fellowship, UT Southwestern Medical Center, Dallas, TX	
Course directo	r/co-director of national-level continuing medical education activities Select Diagnostic Difficulties in Urologic Pathology" – case presentations and review. – Visiting Lecturer,	
2005	Cleveland Clinic Foundation, November 11, 2005. Interpretation of Prostate Needle biopsies. Case presentations and review."- 23rd MLABS symposium	
	April 9, 2005.	
2006	Interpretation of Prostate Needle Biopsies: Critical Issues and Emerging Markers". – Short course, course director, United States and Canadian Academy of Pathology, Atlanta, GA. February 15, 2006 (for a 4-year term).	
2006	Contemporary Issues in Prostate, Urinary Bladder and Renal Pathology" – Weekends in Pathology, American Society of Clinical Pathologists (ASCP): Las Vegas, February 26, 2006	
2007	Interpretation of Prostate Needle Biopsies: Critical Issues and Emerging Markers" – Short course, course director, United States and Canadian Academy of Pathology, San Diego, CA, March 30, 2007.	
2007	Contemporary Issues in Prostate, Urinary Bladder, and Renal Pathology" – American Society of Clinical Pathologists (ASCP) annual meeting: New Orleans, LA, October 18, 2007	

2007	Select diagnostic difficulties and contemporary issues in Urologic Pathology" – Video Microscopy tutorial, American Society of Clinical Pathologist (ASCP) annual meeting, New Orleans, LA, October 19, 2007	
2008	Contemporary Issues in Prostate, Urinary Bladder, and Renal Pathology" – Weekends in Pathology, American Society of Clinical Pathologists (ASCP): Chicago, June 21, 2008.	
2009	Interpretation of Prostate Needle Biopsies: Critical Issues and Emerging Markers" – Short course, course director, United States and Canadian Academy of Pathology, Boston, Massachusetts, March 2009	
2009	Interpretation of Prostate Needle Biopsies: Critical Issues and Emerging Markers" – USCAP Practical Pathology Seminars, San Francisco, CA, May 2009	
2009	United States and Canadian Academy of Pathology - Diagnostic Pathology Update Course, GU section, Niagara Falls, Canada, July 2009	
2009	Contemporary issues and emerging concepts in prostate needle biopsy interpretation and reporting: diagnosis and differential diagnosis, Gleason grading and more"- College of American Pathologists Annual Meeting, Washington D.C., October 2009	
2010	Contemporary Issues in Urologic Pathology" – Weekends in Pathology, American Society of Clinical Pathology Meeting, Las Vegas, Nevada, February 2010.	
2010	United States and Canadian Academy of Pathology - Diagnostic Pathology Update Course, GU section, Lake Tahoe, Nevada, USA, July 2010.	
2010	Contemporary issues and emerging concepts in prostate needle biopsy interpretation and reporting: diagnosis and differential diagnosis, Gleason grading and more"- College of American Pathologists Annual Meeting, Chicago, September 2010	
2010	AIPNA - ASCP: Frontiers In Diagnostic Urologic Pathology: Wednesday, October 27, 2010, American Society of Clinical Pathology National meeting, San Francisco, CA, October 2010.	
2011	Contemporary issues and emerging concepts in prostate needle biopsy interpretation and reporting: diagnosis and differential diagnosis, Gleason grading and more"- College of American Pathologists Annual Meeting, Grapevine, Texas, September 2011.	
2013	Interpretation of Prostate needle biopsies: Contemporary issues and emerging concepts" – American Society of Clinical Pathology, Annual Meeting, Las Vegas, NV, October 2011	
2014	High yield urological pathology: common and important diagnoses not to be missed in daily practice" – American Society of Clinical Pathology, Annual Meeting, Chicago, IL, September 2013.	
2014	High yield urological pathology: common and important diagnoses not to be missed in daily practice" – Short course, United States and Canadian Academy of Pathology, Annual Meeting, San Diego, CA, February 2014.	
2015	High yield urological pathology: common and important diagnoses not to be missed in daily practice" – Short course, United States and Canadian Academy of Pathology, Annual Meeting, Boston, MA, March 2015.	
2016	High yield urological pathology: common and important diagnoses not to be missed in daily practice" – Short course, United States and Canadian Academy of Pathology, Annual Meeting, Seattle, WA, March 2016.	
2016	Recognizing Morphologic Variations of Prostate Carcinomas, Other Carcinomas, and Nonepithelial Lesions". The online 2.50 CME/SAM module, CAP AP3 program, 2016	
2017	"New Things" in 2016 WHO Tumors of Urinary System and Male Genital Organs Blue Book and 8th Edition of AJCC Staging that Every Pathologist Should Know, CAP Annual Meeting, Washington, DC, October 2017.	
2019	"New Things" in 2016 WHO Tumors of Urinary System and Male Genital Organs Blue Book and 8th Edition of AJCC Staging that Every Pathologist Should Know, CAP Annual meeting, Gaylord Palms Resort and Convention Center, Orlando, FL, September 24, 2019	
2020	New concepts in urologic pathology. Prostate cancer with "cribriform architecture" (intraductal carcinoma and invasive Gleason pattern 4), American Society of Clinical Pathology, Virtual Meeting, September 2020	
2021	PathPresenter Masterclass in Pathology: Diagnostic approach to prostate cribriform lesions	

2022	The 2022 Classification of GU Tumors: Don't Let the New Blue Book Make You Blue, Interactive microscopy course, USCAP, Palm Springs, November 15-17
Postdoctoral trainees	
07/2003 -06/2006	Rohit Mehra, M.D., Postdoc Molecular Pathology Fellow (Co-Mentorship with Arul Chinnaiyan, M.D., Ph.D.)

Invited Lectures

Year(s)	Title	Location
Internation	<u>al</u>	
2000	Practical applications of Flow Cytometry in the immunophenotypic analysis of Leukemia's and Lymphomas.	December 2000, Guest Speaker, Association of Pathologists, Gujarat Chapter, Ahmedabad, India.
2005	Contemporary Classification of Renal Epithelial Neoplasms: critical issues.	Guest speaker, Association of Pathologist and Microbiologist, Gujarat chapter, Ahmedabad, India, December 20, 2005
2008	"TMPRSS2-ETS" Family Gene Rearrangements in Prostate Cancers. – Guest Speaker, Convention for Human Medical Genetics, Foundation for Research in Genetics and Endocrinology.	Institute of Human Genetics, January 6, 2008, Ahmedabad, Gujarat, India
2008	Recent advances in prostate cancer biomarkers – recurrent fusions of <i>TMPRSS2-ETS</i> family Genes	NHL municipal medical school and VS Hospital, Association of Pathologists and Microbiologist, Gujarat chapter, January 11, 2008, Ahmedabad, Gujarat, India
2009	The discovery of common recurrent <i>TMPRSS2:ETS</i> gene fusions in prostate cancer: Significance and clinical implications.	Krishna Institute of Medical Sciences, Moving Academy of Medicine and Biomedicine, and Association of Indian Pathologists in North America, Karad, India, January 31, 2009
2009	Contemporary Issues in Bladder Cancer Diagnosis and Management	All India Association of Pathologist and Microbiologist, XIV Indo-US International CME in Pathology, Hosted by Gwalior Medical College, AIPNA chapter, Agra, India, February 4, 2009
2009	Selected Recent Entities and Contemporary Issues in Renal Neoplasms	All India Association of Pathologists and Microbiologists, XIV Indo-US International CME in Pathology, Hosted by Gwalior Medical College, AIPNA chapter, Agra, India, February 4, 2009.
2009	Contemporary Issues in Bladder Cancer Diagnosis and Management.	Association of Pathologists and Microbiologists, Ahmedabad, India, February 8, 2009
2012	Gleason Grading and its Relevance in Prostate Cancer Management.	Institute of Kidney Diseases and Research Center, Civil Hospital, Ahmedabad, Gujrat, India, February 22, 2012.
2012	Contemporary Issues in Prostate Pathology	CME workshop, BJ Medical College, Ahmedabad, Gujarat, India, February 18, 2012.

2012	Intraductal Carcinoma of the Prostate (IDC-P): Current Concepts, Differential Diagnosis and Role of Common <i>ERG</i> Gene Fusions.	International Academy of Pathology Meeting, Cape Town, South Africa, October 4, 2012.
2014	Variant Histological Differentiation in Urothelial Carcinoma: An Update with an Emphasis on Emerging Concepts in Micropapillary Carcinoma. New Frontiers in Pathology, AIPNA-IAP Forum.	International Academy of Pathology meeting, Bangkok, Thailand, October 9, 2014.
2014	"Atypical Cribriform Lesions of the Prostate" In Pitfalls in GU Pathology: the case that taught me a lesson session, ISUP-IAP session.	International Academy of Pathology meeting Bangkok, Thailand, October 9, 2014.
2016	Select Contemporary Issues and Newer Entities in Urologic Pathology.	The 21st AIPNA-ICP International CME, Bhubaneshwar, Odisha, India, January 29, 2016.
2016	Current Concepts on Gleason Grading of Prostate Cancer.	The 21st AIPNA-ICP International CME, Bhubaneshwar, Odisha, India, January 29, 2016.
2018	Bladder Cancer: "New Things" in 2016 WHO classification and 8th edition of AJCC staging.	The 23rd AIPNA-ICP International CME, Navi Mumbai, Maharashtra, India, January 19, 2018.
2018	"New Things" in prostate cancer classification, grading, staging and reporting.	The 23rd AIPNA-ICP International CME, Navi Mumbai, Maharashtra, India, January 19, 2018.
2018	Diagnosis of Limited Prostate Cancer and Atypical Glands Suspicious for Prostate Cancer in Prostate Biopsy.	The XXXII Congress of the International Academy of pathology, King Hussein Bin Talal Convention Center, Dead Sea, Jordan, October 17, 2018.
2020	Diagnosis of prostate cancer on core needle biopsy: A 3-step approach	AIICME 2020, jointly organized by ICP and AIPNA, Ahmedabad, February 1, 2020
2020	Essentials of Gleason grading of prostate cancer: An update	AIICME 2020, jointly organized by ICP and AIPNA, Ahmedabad, February 1, 2020
2021	Contemporary Gleason Grading of Prostate Cancer: An Update	British Association of Urological Pathologists (BAUP), January 7, 2021
2021	Intraductal lesions of prostate: Group Session	British Association of Urological Pathologists (BAUP), January 7 and 8, 2021
2021	Contemporary Gleason Grading of Prostate Cancer: An Update	British Association of Urological Pathologists (BAUP), May 24, 2021
2021	Intraductal lesions of prostate: Group Session	British Association of Urological Pathologists (BAUP), May 24 and 25, 2021
2021	PathPresenter Masterclass in Pathology: Diagnostic approach to prostate cribriform lesions	Organized by PathPresenter, a virtual microscope educational platform, August 13-15, 2021
2021	Histological criteria of prostate cancer	British Association of Urological Pathologists (BAUP), September 13, 2021
2021	Benign mimics of prostate cancer: group session	British Association of Urological Pathologists (BAUP), September 14, 2021
2021	Quiz cases: Presentation of unknown cases	British Association of Urological Pathologists (BAUP), September 14, 2021
2021	Interactive Microscopy Session: Diagnostic approach to cribriform lesions: Select contemporary issues	5d Urogenital Pathology Meeting, Plzen, CZ Republic, October 14, 2021
2021	Renal cell carcinoma with fibromyomatous stroma: A distinct entity or group of lesions?	5d Urogenital Pathology Meeting, Plzen, CZ Republic, October 15, 2021

2021	"The Grey Zones in Classification of Renal Cell Tumors with Clear Cytoplasm"	8 th Annual Histopathology Virtual Meet "The Grey Zones-with the Masters" GZM 2021, 25 th September 2021, India
2021	Update on Gleason Grading of Prostate cancer	Hot topics in anatomic pathology 2021, Virtual Meeting, Organized by anatomic pathology Association, New Zealand
2022	Atypical large gland proliferation of prostate gland	British Association of Urological Pathologists (BAUP), Leeds, UK, September 29-30, 2022
2022	Cribriform prostate carcinoma: New concepts, challenges, controversies, and differential diagnosis: Group microscopical session	British Association of Urological Pathologists (BAUP), Leeds, UK, September 29-30, 2022
2022	Quiz cases: Presentation of unknown cases	British Association of Urological Pathologists (BAUP), Leeds, UK, September 29-30, 2022
2022	Cribriform and intraductal prostate cancer – current challenges and future perspectives	XXXIV International Congress of the International Academy of Pathology (IAP) 2022 – Virtual Meeting, 11-12 October
2023	Gleason grading of prostate cancer – pearls, pitfalls and controversies	11 th January, Gujarat Cancer and Research Institute (GCRI), Ahmedabad, India
2023	Atypical large gland proliferation of prostate gland	British Association of Urological Pathologists (BAUP), January 17, 2022
2023	Cribriform prostate carcinoma: New concepts, challenges, controversies, and differential diagnosis: Group microscopical session	British Association of Urological Pathologists (BAUP), January 18, 2023
2023	Quiz cases: Presentation of unknown cases	British Association of Urological Pathologists (BAUP), January 18, 2023
<u>National</u>		
2004	Prostate SPORE Tissue Core Infrastructure - University of Michigan Experience	The Cleveland Clinic Foundation Delegation, January 15, 2004
2005	Prostate Cancer: From a Pathologist's Perspective	The Prostate Cancer Education and Support Network, The University of Michigan Comprehensive Cancer Center, January 6, 2005.
2005	What is up and what is down in prostate pathology: New frontiers in pathology practices of genitourinary pathology"-Guest speaker, companion meeting.	The American Society of Clinical Pathology (ASCP): Pathology Today meeting, Seattle, WA, October 7, 2005.
2003	Prostate SPORE Tissue Core Infrastructure - University of Michigan Experience.	Israeli Delegation, June 25-26, 2003
2004	Recent changes in the Staging and Classification of Genitourinary Cancers-an update	Genitourinary Oncology Conference, University of Michigan Hospitals, January 15, 2004
2004	Interpretation of Prostatic Pathology: Critical Issues and Emerging Markers.	Association of Pathologists and Microbiologists, Gujarat Chapter, India, January 31, 2004.
2005	Interpretation of Prostate Needle Biopsies: critical issues and emerging markers	Cleveland Clinic Foundation, October 11, 2005

2006	Defining Prostate Cancer Progression by Molecular Profiling of Laser Capture Micro Dissected Prostate Tissues.	The SPORE meeting, Baltimore, July 21, 2006
2006	Immunophenotype of Prostate Cancer: Biomarkers of early detection to end-stage metastatic prostate cancer"	Department of Pathology, Stanford University Hospital, California, October 2, 2006
2006	Select diagnostic difficulties in Urologic Pathology	Department of Pathology, October 2, 2006, Stanford University, California.
2007	Comprehensive assessment of <i>TMPRSS2</i> and <i>ETS</i> gene fusion assessment in clinically localized prostate cancer"	The 3rd Michigan Urology Symposium, Ann Arbor, MI, June 12, 2007
2007	"TMPRSS2-ETS gene rearrangements in clinically localized prostate cancers" – guest lecturer, Department of Pathology.	University of California at Los Angeles, California, August 10, 2007
2008	Urologic Pathology Breakout Session, Part 1: Gleason grading of prostate cancer: New Frontiers in Diagnostic Pathology. An Update for Practicing Pathologists.	University of Michigan Department of Pathology and A. James French Society of Pathologists symposium, September 28, 2008, Ann Arbor, MI.
2008	Urologic Pathology Case Presentation: New Frontiers in Diagnostic Pathology: An Update for Practicing Pathologists.	University of Michigan Department of Pathology and A. James French Society of Pathologist symposium, September 28, 2008, Ann Arbor, MI
2008	Urologic Pathology Breakout Session, Part 3: Interpretation of flat urothelial lesions: New Frontiers in Diagnostic Pathology: An Update for Practicing Pathologists.	University of Michigan Department of Pathology and A. James French Society of Pathologist symposium, September 28, 2008, Ann Arbor, MI
2009	Contemporary Issues in Bladder Cancer Diagnosis and Management.	Flint Society of Pathologists Meeting, Hurley Hospital, Flint, MI, January 14, 2009
2011	Grand Rounds: Cribriform Lesions of Prostate: Diagnosis and Differential Diagnosis, and Emerging Concepts of Intraductal Carcinoma and More.	Memorial Sloan Kettering Cancer Center, NY, NY June 14, 2011.
2011	GU slide seminar: Potpourri of Interesting Urologic Pathology Disease Spectrum Encountered in Outpatient Practice.	Memorial Sloan Kettering Cancer Center, NY, NY, June 15, 2011.
2017	"Interesting GU cases that I encountered in my practice" GU unknown slide case conference.	UCLA, Department of Pathology, Los Angeles, CA. December 11, 2017
2017	"New Things" in prostate cancer classification, grading, staging and reporting, and more.	UCLA, Department of Pathology, Los Angeles, CA. December 11, 2017
2017	GU evening subspecialty case conference	The United States and Canadian Academy of Pathology, March 5, 2017, San Antonio, Texas
2018	Neuroendocrine tumors of the prostate gland	The American Society of Clinical Pathology annual meeting, AIPNA companion meeting session, Baltimore, MD, October 5, 2018.
2019	Hot Topics in Pathology: "Prostate Cancer Pathology, Grading, Reporting, Diagnosis".	Presentation. The United States and Canadian Academy of Pathology meeting, National Harbor, MD, March 20 2019.
2019	"A 3-Step Approach to Prostate Cancer Diagnosis in Core Needle Biopsy".	Presentation, Arizona Society of Pathologists, April 13, 2019.
2019	Update on Prostate Cancer: New Developments in Diagnosis, Grading, Staging, and Reporting".	Presentation, Arizona Society of Pathologists, April 13, 2019.
2019	Update on Bladder Cancer: What is New in 2016 WHO Classification and 8th Edition of AJCC Staging Manual	Presentation, Arizona Society of Pathologists, April 13, 2019

2019	"The diagnosis of prostate cancer on core needle biopsy: A 3 step approach".	Cleveland Clinic, September 30, 2019
2021	Digital pathology and artificial intelligence in genitourinary pathology: present and future perspective	Genitourinary Pathology Society Companion Society Meeting, United States and Canadian Academy of Pathology Meeting, March 2021
2022	Introduction to GUPS-PathPresenter Initiative and moderator	GUPS virtual education series, September 12
Regional/Local		
2011	Common ERG gene fusions in prostate cancer: significance and clinical implications.	GU Journal Club, Caris Life Sciences, Irving, Texas, May 26, 2011
2016	Critical Role of Pathologist in Prostate Cancer Diagnosis and Management.	National Society of Histotechnology, TSH District 1 Sept Meeting. September 10, 2016, Dallas, Texas.
2018	Grand Rounds: Update on Bladder Cancer: What's New in 2016 WHO classification and 8th Edition of AJCC staging Manual	Baylor College of Medicine, Houston, TX, April 30, 2018
2018	"Select Contemporary Issues in Urologic Pathology" an interactive microscopic unknown case conference	Baylor College of Medicine, Houston, TX, April 30, 2018
2019	Select Contemporary Issues in Urologic Pathology" –an interactive unknown case conference.	UT Southwestern Medical Center, Dallas, TX, May 28, 2019
2020	Diagnosis of prostate cancer on core needle biopsy; A 3-step approach	UT Southwestern Medical Center, Dallas, TX, May 6, 2020
2020	Prostate Cancer Grading: Contemporary Issues and Controversies	North Texas Society of Pathology (NTSP), December 17 th , 2020
2021	Cribriform Prostate Cancer: An Old Entity With The New Realizations	Texas Society of Pathology, January 30, 2021
2021	Pathologic and Clinical Significance of Prostate Cancer with Cribriform Architecture	2021 Annual Spence Visiting Professor Day, UTSW Urology department, May 24, 2021
2022	Atypical Large Gland Proliferations of the Prostate Gland	Houston Society of Clinical Pathologists, October 19

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Peer-Reviewed Publications

Original Research Articles

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Books/Textbooks

- 1. **Shah RB**, Zhou M. "Interpretation of Prostate Needle Biopsies: An Illustrated Guide" Publisher: Springer, October 2011.
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Proceedings of Meetings

- 1. A multi-parametric study of colorectal adenocarcinomas of adolescents and young adults: comparisons with adenocarcinoma of the older age group". Presentation at XVI International Cancer Congress, New Delhi, October 1994.
- 2. "Histological and Histochemical Characterization of Intraluminal Seminal Vesicle Secretions: Particular Emphasis on its Crystalloid Morphology" at American Society of Clinical Pathologist Meeting, New Orleans, October 1999.
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- "Epidermal Growth Factor Receptor Expression is Up-Regulated in Clear Cell Renal Carcinoma: Immunohistochemical Tissue Array Confirmation of cDNA Expression Analysis" at 90th Annual United States and Canadian Pathology, Atlanta, March 2001; and also at 2001 Annual Meeting of American Urological Association, Anaheim, CA, June 4, 2001.
- 6. "Comparison of the Basal Cell-Specific Markers, 34βE12 and p63, in the Diagnosis of Prostate Cancer." United States and Canadian Academy of Pathology, Chicago, February, 2002.
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- 9. E-Cadherin Protein Expression of Prostate Adenocarcinoma Independently Predicts Salvage Radiotherapy Outcomes, The United States and Canadian Academy of Pathology, Atlanta, February 14, 2006.
- 10. Neurovascular Tissue Thickness on Prostatectomy Specimens is Less Predictive of Quality of Life Outcomes than Surgeon's Description of Nerve Sparing Procedure. The United States and Canadian Academy of Pathology, Atlanta, February 15, 2006.
- 11. High Carbonic Anhydrase (CA) IX Protein Tissue Expression Predicts Response to Interleukin (IL)-2 based Therapy for Advanced Renal Cell Carcinoma Patients. The United States and Canadian Academy of Pathology, Atlanta, February 14, 2006.
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- 13. Defining Prostate Cancer Progression by Molecular Profiling of Laser Capture Micro dissected Prostate tissues. The American Urology Association meeting, Atlanta, May 21, 2006.
- 14. Urothelial Carcinomas with Mixed Histology: Incidence, Clinicopathological Spectrum, and Biological Significance. The American Urology Association meeting, Atlanta, May 22, 2006.
- 15. Defining Prostate Cancer Progression by Molecular Profiling of Laser Capture Micro Dissected Prostate Tissues. The SPORE meeting, Baltimore, July 21, 2006.
- 16. "Comprehensive assessment of TMPRSS2 and ETS gene fusion assessment in clinically localized prostate cancer"- The American Urology Association (AUA) meeting, Anaheim, CA, May 22, 2007 (Selected as AUA highlights).
- 17. "Comprehensive assessment of TMPRSS2 and ETS gene fusion assessment in clinically localized prostate cancer"- The 3rd Michigan Urology Symposium, Ann Arbor, MI, June 12, 2007.
- 18. "Heterogeneity of TMPRSS2 Gene Rearrangements in Multifocal Prostate Adenocarcinoma: Molecular evidence for an Independent Group of Diseases" 97th annual meeting, United States and Canadian Academy of Pathology, Denver, CO, 2008.
- 19. "Assessment of Pathologic Risk Factors for Under Staging in Patients with Clinical T1 Bladder Cancers" 97th annual meeting, United States and Canadian Academy of Pathology, Denver, CO, 2008.
- 20. "Characterization of TMPRSS2-ETS Gene Aberrations in Androgen Independent Metastatic Prostate Cancer" Platform presentation, The American Urology Association (AUA) meeting, Orlando, FL, May 19, 2008.
- 21. "Significance of Tertiary Pattern 5 in Prostate Needle Biopsies with Gleason Score 3+4 or 4+3 Prostate Cancer: Pathologic Correlation Following Radical Prostatectomy, March 11th, 98th annual meeting, United States and Canadian Academy of Pathology, Boston, MA, 2009.
- 22. "Nested Urothelial Carcinoma: A Clinicopathologic and Immunohistochemical Analysis of 33 cases", The American urology association (AUA) meeting, Chicago, IL, April 27, 2009.
- 23. "Significance of Tertiary Pattern 5 in Prostate Needle Biopsies with Gleason Score 3+4 or 4+3 Prostate Cancer: Pathologic Correlation Following Radical Prostatectomy, The American urology association (AUA) meeting, Chicago, IL, April 29, 2009.
- 24. "ETS Gene Aberrations in Atypical Cribriform Lesions of the Prostate: Implications for the Distinction between Intraductal Carcinoma of the Prostate and Cribriform High-Grade Prostatic Intraepithelial Neoplasia" March 22nd, 99th annual meeting, United States and Canadian Academy of Pathology, Washington DC, 2010.
- 25. "Variant (Divergent) Histologic Differentiation in Urothelial Carcinoma is Frequently Under-recognized and Under-reported in Community Practice, The American Urology Association (AUA) meeting, San Francisco, CA, May 31, 2010.
- 26. "Antibody-Based Detection of ERG Gene Fusions in Prostate Cancer: An Immunohistochemical study Comparing C- and N-terminus ERG Antibodies". March 19th, 101st annual meeting, United States and Canadian Academy of Pathology, Vancouver, BC, Canada. 2012.
- 27. "How Often Does ERG Contribute to Resolving an "Atypical Glands Suspicious for Cancer" Diagnosis in Prostate Biopsies Beyond That Provided by Basal Cell and Alpha-Methylacyl-CoA-Racemase (AMACR) Markers?" March 19th, 101st annual meeting, United States and Canadian Academy of Pathology, Vancouver, BC, Canada. 2012.
- 28. "Incidence and Clinicopathological Characteristics of Gleason Pattern 5 Prostate Cancer in Contemporary Needle Biopsies Series: A Prospective Study". Poster presentation. The United States and Canadian Academy of Pathology Meeting, San Diego, CA, 2014.

- 29. "Heterogeneity of PTEN and ERG biomarkers expression in prostate cancer needle biopsies with more than one core positive: Implications for biomarkers sampling strategy". Poster presentation. The United States and Canadian Academy of Pathology Meeting, San Diego, CA, 2014.
- 30. "Heterogeneity of PTEN and ERG biomarkers expression in prostate cancer needle biopsies with more than one core positive: Implications for biomarkers sampling strategy". Moderated poster presentation. The American Urology Association meeting, Orlando, FL, 2014.
- 31. "Predictive Value of Pathologic Parameters and ERG Oncoprotein Expression in the Stratification of Prostate Cancer Risk Associated with High-Grade Prostatic Intraepithelial Neoplasia (HGPIN) Diagnosis". Poster presentation. The United States and Canadian Academy of Pathology Meeting, Boston, MA, 2015.
- 32. "Diagnosis of Gleason Pattern 5 Prostate Adenocarcinoma on Core Needle Biopsy: An interobserver reproducibility study among urologic pathologists". GU proffered papers, platform presentations. The United States and Canadian Academy of Pathology Meeting, Boston, MA, 2015.
- 33. "Predictive Value of Pathologic Parameters and ERG Oncoprotein Expression in the Stratification of Prostate Cancer Risk Associated with High-Grade Prostatic Intraepithelial Neoplasia (HGPIN) Diagnosis".

 Moderated poster presentation. The American Urology Association meeting, New Orleans, LA, 2015.
- 34. "Diagnosis of Limited Prostate Adenocarcinoma on Core Needle Biopsy: An improvement of interobserver reproducibility using comprehensive morphological and molecular criteria". Poster presentation. The United States and Canadian Academy of Pathology Meeting, Seattle, WA, 2016.
- 35. "High grade prostatic intraepithelial neoplasia with adjacent small atypical glands (PINATYP) on core needle biopsy: A clinicopathologic analysis of 54 cases with emphasis on predictors of prostate cancer". Poster presentation. The United States and Canadian Academy of Pathology Meeting, Seattle, WA, 2016.
- 36. "Atypical Intraductal Proliferation and Intraductal carcinoma of the prostate on core needle biopsy: A comparative clinicopathological and molecular study with a proposal to expand the morphological spectrum of Intraductal carcinoma". Poster presentation, The United States and Canadian Academy of Pathology, March 6, 2017, San Antonio, Texas.
- 37. "Morphologic Correlates of PTEN Loss in Prostate Cancer". Poster presentation, The United States and Canadian Academy of Pathology, March 21, 2018, Vancouver, Canada.

Non-peer reviewed scientific or medical publications/materials in print or other media

1.	Shah RB, Rubin MA. Applications of TMA technology. 12, Advance Laboratory, September 2002
2.	Shah RB , Betz B. Bladder Cancer Detection by Fluorescence In Situ Hybridization (FISH). MLabs Spectrum, 2008; 22(3).
3.	Shah RB . Changing definition of the Gleason grading of prostate cancer: An Update on current concepts and contemporary approach. Editorial. Pathology and Laboratory Medicine, Official publication of Gujarat Association of Pathologists and Microbiologists 2010 2(1):7-28.
4.	Shah RB . Translocation Carcinomas of the Kidney: An Expanding Clinical, Pathological, and Genetic Spectrum. Pathology and Laboratory Medicine, Official publication of Gujarat Association of Pathologists and Microbiologists. 2012; 4(1):7-11.
5.	Shah RB . Emerging Molecular Markers of Diagnosis and Prognosis in Prostate Cancer. Pathology and Laboratory Medicine, Official publication of Gujarat Association of Pathologists and Microbiologists 2013; 5 (1):5-18.