



# APPS 2022

Asian Pacific  
Prostate Society

Shinagawa

December 8<sup>th</sup> (Thu) - 10<sup>th</sup> (Sat), 2022

Congress Chair

**Takashi Fukagai**

Professor, Department of Urology, Showa University School of Medicine

Venue

**Tokyo Conference  
Center Shinagawa**

Organizing Secretariat of APPS 2022  
c/o MA Convention Consulting, Inc.

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# Welcome

Dear friends and APPS members,

It is our great privilege and honor to host the Annual Congress of Asian Pacific Prostate Society (APPS) 2022 in Tokyo, Japan from December 8th to 10th, 2022.

On behalf of the member of APPS and as the Congress Chairperson, I would like to welcome all participants from Asian Pacific Countries and Communities to the meeting in Tokyo. This will be the second time that the event has been held in Japan since Professor Shigeo Horie of Juntendo University held the fourth event in Okinawa in 2014.

APPS is an academic meeting held every year for the purpose of contributing to the progress and development of Urological medical care. But due to the pandemic of COVID-19, the annual meeting for the past two years has been cancelled, and it will be the first time in three years since the meeting in Shanghai in 2019. We believe that an academic meeting where many urologists from Asian countries gather and exchange clinical experiences and research results with each other will be of great significance, and we would like to make the academic meeting we hold fruitful. The organizing committee and the scientific committee are planning to have several symposia and panel discussions about recent hot topics for prostatic disease. We encourage expert and young urologists in the Asian-Pacific region to discuss about the latest progress in the clinical and translational research.

The status of the epidemic of COVID-19 at the end of this year is unpredictable. But we believe that we can have a face-to-face discussion with you in Tokyo.

Sincerely,



**Takashi Fukagai, MD., PhD.**

*Congress Chair of Asian Pacific Prostate Society 2022*

# DAY1 / THURSDAY DECEMBER 8, 2022

TIME	PROGRAM	
8:35-9:00	Session 1: Opening Lecture: Epidemiology of prostate cancer in Asian countries	Takashi Fukagai [Japan]
	Epidemiology of prostate cancer in Asian countries	Takahiro Kimura [Japan]
9:00-10:00	Session 2: Current Status of PSA Screening in Asian Countries	Koichiro Akakura [Japan], Byung Ha Chung [Korea]
	Current Status of PSA Screening in China	Dingwei Ye [China]
	Current status of PSA screening in KOREA	Jae Young Joung [Korea]
	Prostate Cancer Screening in Indonesia	Lukman Hakim [Indonesia]
10:00-10:40	Session 3: Topics of Active Surveillance and PSA screening in Japan	Kazuhiro Suzuki [Japan]
	PSA screening in Japan	Kazuto Ito [Japan]
	Active Surveillance for early Prostate Cancer—PRIAS-JAPAN—	Mikio Sugimoto [Japan]
	Co-sponsored by Takeda Pharmaceutical Company Limited	
10:50-11:50	Session 4: Treatment for Localized Prostate Cancer 1 Radiation therapy	Jun Hyuk Hong [Korea], Osamu Ogawa [Japan]
	IMRT for prostate cancer	John Lederer [USA]
	Permanent seed implantation prostate brachytherapy in Japan	Shiro Saito [Japan]
	Experience of Proton Beam Therapy for Localized Prostate cancer in Tsukuba University	Hiroyuki Nishiyama [Japan]
12:05-12:55	Session 5: Luncheon Seminar: Topics of RARP	Yukihiro Kondo [Japan], Tomohiko Ichikawa [Japan]
	Key anatomical structures and points of surgical procedure in robot-assisted radical prostatectomy—Achieving early recovery of urinary continence—	Yuta Yamada [Japan]
	Usefulness of Retzius-sparing technique to prevent postoperative urinary incontinence after robot-assisted radical prostatectomy (RARP)	Atsushi Okada [Japan]
	Co-sponsored by Intuitive Surgical	
13:10-13:50	Session 6: Treatment for Localized Prostate Cancer 2 RARP: New Platform	Levent Türkeri [Turkey], Yasutomo Nasu [Japan]
	Robot-assisted radical prostatectomy using hinotori	Nobuyuki Hinata [Japan]
	Robotic Prostatectomy 2022: SP Retzius-Sparing & Perineal.	Koon Ho Rha [Korea]
13:50-14:30	Session 7: Treatment for Localized Prostate Cancer 3 RARP: Tips and Tricks	Dennis Serrano [Philippines], Takeshi Shichiijo [Japan]
	Application of dehydrated human amnion/chorion membrane on patients undergoing Robotic Assisted Radical Prostatectomy (RARP)	Yen Chuan Ou [Taiwan]
	Robot Assisted Radical Prostatectomy(RARP): Techniques to Preserve Potency and Continence	Choung-Soo Kim [Korea]

14:40-15:20	Session 8: Target biopsy and Focal therapy	Go Kimura [Japan], Seong Il Seo [Korea]
	Robot-assisted Magnetic Resonance Imaging-ultrasound Fusion Transperineal Targeted Biopsy	Henry Ho [Singapore]
	Focal therapy with high-intensity focused ultrasound for the localized prostate cancer based on magnetic resonance imaging-transrectal ultrasound fusion image-guided target biopsy in Japan	Sunao Shoji [Japan]
15:20-16:00	Session 9: Ablation therapy for prostate cancer	Robert G. Carlile [USA], Yoshiyuki Kakehi [Japan]
	Irreversible electroporation (IRE) for prostate cancer using PSMA PET-CT	Ji Youl Lee [Korea]
	The routine use of high intensity focused ultrasound for the treatment of localized prostate cancer	Po Hui Chiang [Taiwan]
16:15-16:55	Session 10: Topics of the managements of mHSPC	Mototsugu Oya [Japan]
	Current status and future perspectives of the managements of metastatic prostate cancer	Kazutoshi Fujita [Japan]
	Co-sponsored by Astellas Pharma Inc.	
17:05-18:35	Moderated Poster Presentation 1	Kazuhiko Oshinomi [Japan], Jacob ST Pang [Taiwan], Thomas S Namiki [USA]
MP1-1	A mitochondria-targeted drug induces apoptosis in prostate cancer xenografts	Seiji Arai [Japan]
MP1-2	Hyperforin Induces Extrinsic/Intrinsic Apoptosis Signaling and Inhibits NF- $\kappa$ B for Metastasis Suppression in Prostate Cancer Cells	Cheng-Hsi Liao [Taiwan]
MP1-3	Combination therapy with novel androgen receptor antagonists and statin for castration-resistant prostate cancer	Yoshitaka Sekine [Japan]
MP1-4	Lipopolysaccharide from dysbiotic gut microbiome promotes prostate cancer growth through histamine H1 receptor signaling	Kazutoshi Fujita [Japan]
MP1-5	GDF15 propeptide is a novel and useful biomarker for bone metastases in prostate cancer	Gaku Yamamichi [Japan]
MP1-6	Withdrawn	
MP1-7	Is 12 Systemic Cores in Transperineal Biopsy Sufficient for Detecting Clinically Significant Prostate Cancer?	Chang Eil Yoon [Korea]
MP1-8	The Impact of mpMRI on Treatment Strategy for Incidental Prostate Cancer after HoLEP	Chung Un Lee [Korea]
MP1-9	Clinicopathological analysis of prostate cancer with lymph node metastasis in the prostatic anterior fat pad	Junichi Ikeda [Japan]
MP1-10	Robotic-Assisted Simple Prostatectomy using the da Vinci SP system, pilot study	ByungHoon Kim [Korea]
MP1-11	Early outcomes of Single port robotic radical prostatectomy: 1 year followed up	Seokhwan Bang [Korea]
MP1-12	Comparison of longitudinal health-related QOL outcomes between anterior and posterior approaches to robot-assisted radical prostatectomy	Naoya Nagasaki [Japan]
MP1-13	Novel Nomogram Predicting Biochemical Recurrence-Free Survival After Radical Prostatectomy	leandro blas [Japan]
MP1-14	Carbon-ion radiotherapy for high-risk prostate cancer in Gunma University Heavy Ion Medical Center	Hiroshi Matsui [Japan]
MP1-15	Salvage low-dose rate brachytherapy for local recurrence of prostate cancer after radical radiotherapy	Takahiro Nakamoto [Japan]

# DAY2 / FRIDAY DECEMBER 9, 2022

TIME	PROGRAM	
8:30-9:10	Session 11: Topics of RCC	Tohru Nakagawa [Japan]
	Practice of clinical approaches to first-line treatment for metastatic renal cell carcinoma.~A new era of immune checkpoint inhibitors (ICI) -based combination therapy~	Jun Morita [Japan]
	Co-sponsored by Pfizer	
9:10-9:40	Session 12: Medication for BPH & LUTS	Hiroyuki Nishiyama [Japan]
	Treatment strategy for OAB with BPH	Naoya Masumori [Japan]
	Co-sponsored by KYORIN Pharmaceutical Co., Ltd.	
9:50-10:50	Session 13: New Surgical Techniques & New treatment Strategies for BPH	Bannakij Lojanapiwat [Thailand], Satoru Takahashi [Japan]
	Water Vapor Therapy for Benign Prostatic Hyperplasia—the Hong Kong Experience	Anthony C.F. Ng [Hong Kong]
	Prostatic Urethral Life (Urolift) for the treatment of LUTS in 2022	Henry Woo [Australia]
	Effects of Transoral Robotic Surgery (TORS)- Obstructive Sleep Apnea (OSA) Surgery on Lower Urinary Tract Symptoms in Male Patients with OSA/Hypopnea Syndrome	Yao-Chi Chuang [Taiwan]
11:00-12:00	Moderated Poster Presentation 2	Kyung Seop Lee [Korea], Robert G. Carlile [USA]
MP2-1	Changes of resistance indices after medication in benign prostatic hyperplasia: a prospective study	Kyung Seop Lee [Korea]
MP2-2	The Association between Human Gut Microbiota and Benign Prostatic Hyperplasia	Kentaro Takezawa [Japan]
MP2-3	PSA doubling time predicts the efficiency of site-directed therapy for non-metastatic or oligometastatic CRPC	Taketo Kawai [Japan]
MP2-4	Switching to darolutamide for MOCRPC resistant to enzalutamide or apalutamide	Saizo Fujimoto [Japan]
MP2-5	Efficacy and Safety of Enzalutamide and Apalutamide in the Treatment of Patients with nmCRPC: A retrospective analysis	Shuhei Hara [Japan]
MP2-6	How I recruit the suitable nmCRPC patients for taking insurance-reimbursed Darolutamide in Taiwan	Kuan-Chou Chen [Taiwan]
MP2-7	Cisplatin and Etoposide for treatment-related Neuroendocrine Prostate Cancer: avorable early Response with short Duration	Yuto Tsubonuma [Japan]
MP2-8	Biology and usefulness of [-2] proPSA as a prognostic marker in CRPC patients	Yoshiyuki Miyazawa [Japan]
MP2-9	The Effects of Personal and Family Cancer History on the Diagnosis of Prostate Cancer in a Multi-Institutional Prostate Biopsy Registry	Jeong Woo Yoo [Korea]
MP2-10	Withdrawn	
12:15-13:15	Session 14: Luncheon Seminar Topics of MOCRPC	Hideki Sakai [Japan]
	Non-metastatic CRPC or “Early” CRPC? Challenges in CRPC treatment in the era of next-generation imaging.	Shusuke Akamatsu [Japan]



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Changes in treatment landscape for non-metastatic CRPC: what has novel hormonal therapy brought about?

Kohei Hashimoto [Japan]

Co-sponsored by Bayer Yakuhin, Ltd./Nippon Kayaku Co., Ltd.

13:30-14:00	Session 15: Topics of Bone Scan	Takahiro Kimura [Japan]
	Importance of Imaging Follow-up for Advanced Prostate Cancer	Kazuki Sudo [Japan]
	Co-sponsored by Nihon Medi-physics Co., Ltd.	
14:00-14:40	Session 16: Treatment strategy for mCSPC	Hirotsugu Uemura [Japan]
	Treatment strategy for mCSPC	Declan G. Murphy [Australia]
	Co-sponsored by Janssen Pharmaceutical K.K./Nippon Shinyaku Co., Ltd.	
14:50-15:30	Session 17: Topics of BRCA & CRPC	Naohiro Fujimoto [Japan]
	The role of olaparib in the treatment of mCRPC	Hiroshi Kitamura [Japan]
	Co-sponsored by AstraZeneca	
15:30-16:20	Session 18: What is the best treatment sequence of metastatic Pca? Panelist: Jae il Chung [Korea], Teng Aik Ong [Malaysia], Hiroshi Kitamura [Japan], Kuan Chou Chen [Taiwan]	Hiroyoshi Suzuki [Japan], Edmund Chiong [Singapore]
	Metastatic Prostate Cancer Treatment—Considerations in Asia	Edmund Chiong [Singapore]
16:20-16:50	Session 19: Advance in PSMA theranostics	Norio Nonomura [Japan]
	A single dose of novel PSMA-targeting radiopharmaceutical agent [ <sup>177</sup> Lu] Lutetadipep for patients with metastatic castration-resistant prostate cancer: Phase I clinical trial	Ji Youl Lee [Korea]
	Co-sponsored by Future Chem	
17:00-18:15	APPS & ACaP Joint Symposium (7th A-Cap meeting)	
	Opening Remarks	Haruki Kume [Japan]
	Special Lecture	Takashi Fukagai [Japan]
	The utilization of the Japan Study Group of Prostate Cancer registry data	Masaki Shiota [Japan]
	Changes in the trends of initial treatment for newly diagnosed prostate cancer in Japan: A nationwide multi-institutional study	Taketo Kawai [Japan]
	Reports from participating countries	Tohru Nakagawa [Japan]
	1. Malaysia	Teng Aik Ong [Malaysia]
	2. Turkey	Levent Turkeri [Turkey]
	3. Japan	Mizuki Onozawa [Japan]
	Closing Remarks	Teng Aik Ong [Malaysia]
18:30-19:00	Best Poster Award at Foyer	Hidefumi Kinoshita [Japan]

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# DAY3 / SATURDAY DECEMBER 10, 2022

TIME	PROGRAM
APPS & Prostate Cancer Symposium joint session	
8:30-9:00	Session 20: Liquid Biopsy Liquid Biopsy for Prostate Cancer Kazuhiro Suzuki [Japan] Yeong-Shiau Pu [Taiwan]
9:00-10:00	Session 21: Topics of New Diagnostic Methods p2PSA Current update on prostate health index ( $\phi$ ) in Japan Effectiveness of [-2]proPSA measurement in the diagnosis of significant prostate cancer compared to MRI and PSA Rainy Umbas [Indonesia], Yoshihiko Hirao [Japan] Kazuto Ito [Japan] Hiroji Uemura [Japan]

Co-sponsored by Beckman Coulter

## Session 1: Opening Lecture: Epidemiology of prostate cancer in Asian countries



### Moderator

**Takashi Fukagai**

*Department of Urology, Showa University School of Medicine, Tokyo, Japan*

#### Education:

- 1980-1986 Showa University, School of Medicine, Tokyo, Japan  
Degree: Doctor of Medicine
- 1986-1990 Showa University Graduate School Department of Urology
- 1997-1999 Research Fellow, Department of Surgery,  
John A. Burns School of Medicine, University of Hawaii.

#### Professional experience:

- 1990-1991 Instructor, Showa University School of Medicine.
- 1991-1993 Medical Staff in Urology  
Tokyo Seamen's Insurance Hospital, Tokyo.
- 1993-1996 Medical Staff in Urology  
Tokyo Metropolitan Hiroo General Hospital, Tokyo.
- 1996-1998 Instructor, Showa University School of Medicine.
- 1998-2003 Assistant Professor of Urology.  
Showa University School of Medicine.
- 2003-2014 Associate Professor of Urology.  
Showa University School of Medicine
- 2014 March Professor of Urology,  
Showa University Koto Toyosu Hospital
- 2016 April Vice Director, Professor of Urology,  
Showa University Koto Toyosu Hospital
- 2021 April Professor and chairman of Urology,  
Showa University School of Medicine



### Epidemiology of prostate cancer in Asian countries

**Takahiro Kimura**

*Department of Urology, The Jikei University School of Medicine*

#### **Educational History**

2002 Ph.D. (Dr. of Medical Science), The Jikei University School of Medicine  
1996 M.D., The Jikei University School of Medicine

#### **Professional Background**

Apr/2022-present Professor, Department of Urology, The Jikei University School of Medicine  
Jan/2018-Mar/2022 Associate Professor, Department of Urology, The Jikei University School of Medicine  
Aug/2011-Dec/2017 Assistant Professor, Department of Urology, The Jikei University School of Medicine  
Aug/2003-Sep/2006 Postdoctoral Researcher, Department of Medicine, Division of Digestive Disease, UCLA  
Apr/2001-Aug/2003 Clinical Associate, Department of Urology, The Jikei University School of Medicine  
May/1996-Dec/1999 Resident in Department of Urology, The Jikei University School of Medicine

#### **Consultants/Committees/Editorial Boards**

2013-2017 Editorial Board, International Journal of Urology  
2013-2015 International Committee, Japanese Urological Association  
2015-present Representative, Japanese Society of Endourology  
2019-present Website Chairman, Urological Association of Asia  
2020-present Representative, Japan Society of Urologic Oncology

#### **Abstract**

The incidence of prostate cancer has been increasing worldwide in recent years. The GLOBOCAN project showed that prostate cancer was the second most frequently diagnosed cancer and the fifth leading cause of cancer mortality among men worldwide in 2020. This trend has been growing even in Asian countries, where the incidence had previously been low. However, the accuracy of data about incidence and mortality as a result of prostate cancer in some Asian countries is limited. The cause of this increasing trend is multifactorial. One possible explanation is changes in lifestyles due to more Westernized diets. The incidence is also statistically biased by the wide implementation of early detection systems and the accuracy of national cancer registration systems, which are still immature in most Asian countries. Mortality rate decreases in Australia, New Zealand and Japan since the 1990s are possibly due to the improvements in treatment and/or early detection efforts employed. However, this rate is increasing in the majority of other Asian countries. Studies of latent and incidental prostate cancer provide less biased information. The prevalence of latent and incidental prostate cancer in contemporary Japan and Korea is similar to those in Western countries, suggesting the influence of lifestyle changes on carcinogenesis. Many studies reported evidence of both congenital and acquired risk factors for carcinogenesis of prostate cancer. Recent changes in the acquired risk factors might be associated with the increasing occurrence of prostate cancer in Asian countries. This trend could continue, especially in developing Asian countries.

## Session 2: Current Status of PSA Screening in Asian Countries



### Moderator

**Koichiro Akakura**

*Department of Urology, JCHO Tokyo Shinjuku Medical Center*

#### **EDUCATION:**

Graduated from School of Medicine, Chiba University, Japan, 1984 (M.D.)  
Graduated from Graduated School of Medicine, Chiba University, Japan, 1990 (Ph.D.)

#### **PROFESSION:**

Clinical Resident, Department of Urology, Chiba University Hospital and National Kohnodai Hospital, Japan, 1984-1986  
Post-doctoral Fellow, Department of Cancer Endocrinology, British Columbia Cancer Agency, Canada, 1990-1993  
Faculty Member, Assistant Professor and Associate Professor, Department of Urology, Chiba University Hospital, Japan, 1994-2002  
Head, Department of Urology, Tokyo Kosei Nenkin Hospital, Japan, 2002-2014  
Assistant to the President, Tokyo Kosei Nenkin Hospital, Japan, 2007-2014  
Assistant to the President, Japan Community Health-care Organization (JCHO) Tokyo Shinjuku Medical Center, Japan, 2014-2015  
Head, Department of Urology, Japan Community Health-care Organization (JCHO) Tokyo Shinjuku Medical Center, Japan, 2014-  
Vice President, Japan Community Health-care Organization (JCHO) Tokyo Shinjuku Medical Center, Japan, 2015-

#### **AWARDS:**

First Award in Prostate Cancer Meeting in Japan, Tokyo, Japan, 1990  
Fellowship of Urological Oncology from Berlex Canada, 1990-1992  
"Sakaguchi" Award, Japanese Urological Association, 2000

Dr. Akakura graduated from School of Medicine, Chiba University, Japan (M.D.), and obtained Ph.D. from Chiba University. Dr. Akakura completed Clinical Resident at Department of Urology, Chiba University Hospital and National Kohnodai Hospital, Japan, and spent 2.5 years as a Post-doctoral Fellow at Department of Cancer Endocrinology, British Columbia Cancer Agency, Canada. Currently He is a Vice President of Japan Community Health-care Organization (JCHO) Tokyo Shinjuku Medical Center. He has been studying clinical and basic research on urological diseases, especially on prostate cancer, and published more than 210 original articles, 210 reviews and 60 chapters of books.



### Moderator

**Byung Ha Chung**

*Dept of Urology, Yonsei medical college, Gangnam Severance Hospital*

#### **Academic or Medical Associations Position:**

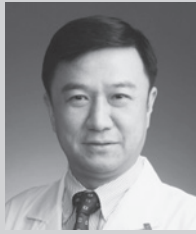
The Korean Urological Oncology Society, Executive member (current)  
Prostate Cancer Clinic, Gangnam Severance Hospital, Chairperson (current)  
The Korean Prostate Society Korean Urological Association, Advisor (current)  
Korean Medical Association, Member (current)  
Korean Urological Association, Member (current)  
Korean Cancer Association, Member (current)  
Korean Urologic Oncology Society, Member (current)  
Korea Prostate Society, Member (current)  
American Urological Association, Member (current)  
Asian-Pacific Prostate Society, Member (current)

## Session 2: Current Status of PSA Screening in Asian Countries

### **Educational background & professional experience (in sequence of the latest year):**

2014~ Executive member, The Korean Urological Oncology Society  
2012~ Chairperson, Prostate Cancer Clinic, Gangnam Severance Hospital  
2006~ Professor, Department of Urology, Yonsei University College of Medicine  
2010-2020 Chairperson, Department of Urology, Gangnam Severance Hospital, Yonsei University College of Medicine  
2014-2018 Chairperson, Department of Urology, Yonsei University College of Medicine  
2012-2014 President, Asian-Pacific Prostate Society  
2011-2013 President, Severance Urology Oncology Group (SUOG)  
2010-2012 Chairperson, Urologic Cancer Clinic, Gangnam Severance Hospital  
2008-2009 President, The Korean Prostate Society  
2001-2006 Associate Professor, Department of Urology, Yonsei University College of Medicine  
1999-2000 Research Fellow, Mayo Clinic, Rochester, MN, USA  
1995-2001 Assistant Professor, Department of Urology, Yonsei University College of Medicine  
1994-1995 Visiting Clinician, Mayo Clinic, Rochester, MN, USA  
1994-1995 Assistant professor, Department of Urology, Gyeongsang National University College of Medicine  
1991-1994 Full time Instructor, Department of Urology, Gyeongsang National University College of Medicine

**Research Interests:** Oncology, Benign Prostatic Hypertrophy (BPH)



### Current Status of PSA Screening in China

**Dingwei Ye**

*Department of Urology, Fudan University Shanghai Cancer Center*

Prof. Dingwei Ye, Vice President of the Fudan University Shanghai Cancer Center, Director of the Multi-disciplinary Team for GU cancer, Director of Fudan University Prostate Cancer Institute, President of Chinese Society of Clinical Oncology Prostate Cancer Committee (CSCO-PC), President of China Primary Health Care Foundation Urology Committee, Former President of Genitourinary Cancer Committee of Chinese Anti-Cancer Association (CACA-GU), Vice Chair of Chinese Urology Association (CUA) Oncology Group, President of Chinese Prostate Cancer Consortium (CPCC), Vice chair of Urothelial Carcinoma Committee, Renal Cell Carcinoma Committee and Immunotherapy Committee of CSCO, President of Genitourinary Cancer Committee of Shanghai Anti-Cancer Association, deputy leader of writing group of NCCN Guidelines for diagnosis and treatment of prostate cancer, renal cancer and urothelial carcinoma (Chinese edition), Committee member of NCCN Asia Consensus of prostate cancer and bladder cancer, Committee member of Advanced Prostate Cancer Consensus Conference, President-elect of Asian Pacific Prostate Society (APPS), Vice President of Asia Cryo-surgery Society.

Prof. Ye presided over more than 50 national, provincial and ministerial scientific research funds. Prof. Ye had 622 papers published in peer review journals as the first author or corresponding author (360 SCI), edited 9 monographs, obtained 25 patents. He has led 74 international or national multicenter clinical trials and studies for GU cancer as leading PI. As the first accomplisher, Prof. Ye won the first prize of Shanghai Science and Technology Progress, First Prize of Science and Technology Achievement of Ministry of Education, Shanghai Medical Science and Technology Award first prize, Second prize of Chinese Medicine Award. As the third accomplisher, Prof. Ye won First Prize of National Science and Technology Progress in 2012. Prof. Ye awarded as Young and middle-aged experts with outstanding contributions by the National Health and Family Planning Commission, Wu Jieping Urology Award, Shanghai Leading Talents, Shanghai medical leading talents, Excellent Academic Leader of Shanghai, Advanced Worker in National Health and Family Planning Commission, and enjoyed special government allowance of The State Council.

### Abstract

#### Introduction

In China, the incidence of prostate cancer (PCa) has been increased rapidly in recent years. Moreover, the mortality of PCa in China is much higher than that in Western countries. In addition to differences in ethnicity and lifestyle, different PSA screening pattern may also be an important factor.

#### Methods

We reviewed the epidemiology of PCa in China and compared the recommendations of Chinese Society of Clinical Oncology (CSCO) Prostate Cancer Guideline with the EAU, AUA, NCCN guidelines. Finally, we conducted a health economic evaluation of PSA screening and introduced some PSA screening models in China.

#### Results

In Shanghai, the incidence of PCa has risen to 3<sup>rd</sup> place. The proportion of newly diagnosed metastatic PCa patients accounted for nearly 1/3, much higher than 5% in the United States. In China, PSA screening is not a national health recommendation program. However, CSCO Prostate Cancer Guideline also recommends PSA screening for Chinese men (life expectancy > 10 years) over 50 years, over 45 years with PCa family history, and over 40 years with *BRCA2* gene mutation. In addition, results based on Chinese population suggest that Chinese men with *BRCA1*, *MSH2*, or *ATM* mutation should also receive PSA screening. In health economic evaluation, PSA-based PCa screening appears to be cost-effective, especially in men aged 50 to 65 years.

#### Conclusion

Currently, PSA screening is not a national health recommendation in China. However, with the update of epidemiological data and health economics data, PSA screening may have broader application prospects.



### Current Status of PSA Screening in KOREA

Jae Young Joung<sup>1</sup>, Young Hwii Ko<sup>2</sup>, Byung Hoon Kim<sup>3</sup>

<sup>1</sup>National Cancer Center,

<sup>2</sup>Yeungnam University,

<sup>3</sup>Keimyung University, Korea

Dr. Joung, Jae Young graduated from Gyeongsang National University College of Medicine in 1998. He finished a urological residency at Asan Medical Center. He has been working for the department of urology, National Cancer Center since 2003

He is a uro-oncologist who cares for patients with prostate cancer. He has performed more than 1,500 robotic-assisted radical prostatectomy. He has published over 130 peer-reviewed articles. His clinical interest also lies in medical care for patients with advanced prostate cancer and he is now actively involved in several international clinical trials using new investigative drugs for advanced prostate cancer. A Senior Scientist in the Division of Precision Medicine at the National Cancer Center, his main translation research activity is focused on genetic characteristics and liquid biopsy of prostate cancer and Dr Joung has also served as the Secretary General of the Korean Prostate Society and Asian Pacific Prostate Society since 2022.

#### Abstract

The incidence of prostate cancer has grown gradually in recent years in Korean men and prostate cancer is the fourth most commonly diagnosed cancer and the tenth leading cause of cancer related death, with an estimated 16,803 new cases diagnosed and 2,047 deaths in 2019. Prostate cancer is the 3rd most prevalent cancer among Korean men, and 2nd most common among men over 65 years old. Notably, the incidence of prostate cancer in Korea has risen rapidly over the past two decades, and due to the rapid demographic shifts, the burden of prostate cancer in Korea is expected to increase markedly in the future. With prior projection study of prostate cancer in Korea, the incidence and mortality of prostate cancer is expected to increase markedly in the period until 2034, due primarily to estimated increases in the aged population. Based on the recent study by Ko and Kim et al. using data of National Health Insurance Service of Korea, I present national-wide trends of serum PSA testing over a recent decade and investigated the impact of testing on prostate cancer detection rates at the meeting of APPS 2022.

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### Prostate Cancer Screening in Indonesia

**Lukman Hakim**

*Department of Urology, Soetomo Hospital, Airlangga University School of Medicine*

#### EDUCATION

September 2011 - 2015 Ph.D at KU Leuven, Belgium  
2017 Consultant Uro-oncology

#### PROFESSIONAL EXPERIENCE

2008 - now Staff member at the Department of Urology, Airlangga University, Surabaya, Indonesia  
2010 - now Reviewer of Journal of Medical Case Reports  
2010 - now Vice-editor of the Indonesian Journal of Urology (JURI)  
2014 - now Reviewer of British Journal of Urology International (BJUI)  
2013 - now Reviewer of Journal of Urology  
2014 - now Reviewer of Urologia Internasional Journal  
2012 - now Reviewer of BMC Journal  
2014 - now Reviewer for JMED Research Journal  
2017 - now Editorial Board of the Journal of Men's Health (JOMH)  
2017 - now Assistant Editor of the Urological Science Journal

#### ACADEMIC POSITIONS

2021 - now Head of Urology, Rumah Sakit Universitas Airlangga Teaching Hospital, Surabaya, Indonesia  
2021 - now Head of Clinical Research Unit (CRU), Rumah Sakit Universitas Airlangga Teaching Hospital, Surabaya, Indonesia  
2021 - now Member of Research Ethic Committee, Rumah Sakit Universitas Airlangga Teaching Hospital, Surabaya, Indonesia

#### PROFESSIONAL POSITIONS

Nov 2015 - now Executive Board Member of the Asia Pacific Prostate Society (APPS)  
Nov 2015 - now Executive Board Member of the Asia Pacific Society of Uro-oncology (APSU)  
January 2017 - now Treasurer of the Asia Pacific Society of Uro-oncology (APSU)  
October 2017 - now Research Council Member (Indonesian Representative) of the Societe Internationale D' Urologie (SIU)  
March 2018 - now Faculty member of the Asian Urological Surgical Training & Education (AUSTEG)  
2008 - now Executive Board Member of The Asian Society of Men's Health and Aging (ASMHA)  
2020 - now Member of the Academic Ethic Commission, Indonesian College of Urology (KUI)  
2021 - now Chair of Scientific Committee, Indonesian Urological Association (IAUI)  
2021 - now Chair of Scientific Committee, Indonesian Society of Urological Oncology (InaSOU)

#### SCIENTIFIC MEMBERSHIP

Indonesian Association of Urology (IAUI)  
European Association of Urology (EAU)  
International Continence Society (ICS)  
International Society of Stem Cell Research (ISSCR)  
American Urological Association (AUA)  
Indonesian Physicians Association (IDI)  
Asia Pacific Prostate Society (APPS), Executive Board Member  
Asia Pacific Society of Uro-oncology (APSU), Treasurer  
Asian Urological Surgery Training and Education (AUSTEG), Faculty Representing Indonesia  
Asia Society of Men's Health and Aging (ASMHA), Executive Board Member  
Indonesian Society of Oncological Urology (InaSOU), Chair of Scientific Committee  
Indonesian Urological Association, Chair of Scientific Committee

## Session 2: Current Status of PSA Screening in Asian Countries

### Abstract

Prostate cancer (PCa) is currently ranked 5<sup>th</sup> among all cancer among Men in Indonesia. Despite the much lower incidence compared to the western-world, PCa in Indonesia is considered at later stage during the first consultation. The national PCa registry recently obtained from 2 multi-institutional databases (n=1695) have shown an average total PSA of 347.67 ng/ml at first presentation. Among these cohorts, > 50% were considered as metastatic disease at their initial consultation. These characteristics were similar to some other Asian countries.

The high total PSA at first presentation were related to multi-factors, i.e health-seeking behaviour, educational background, level of awareness for PSA screening,, average household income and pattern of expenditure, national health insurance policy and lifestyle contributing to risk factors. Efforts have been introduced continuously to increase awareness among the society and advocacy to the ministry of health authorities. More frequent PCa campaign to emphasize the importance of PSA screening have been organised, as well as to propose PSA total screening cost to be part of the national health insurance coverage among any level of the public healthcare facilities. These efforts will of course need time to take significant effect.

Despite the high-value of total PSA at first presentation at this moment, a slow but increasing trend of patients with earlier stage showing less PSA total value have been observed. These are sub-population of PCa patients who started to be aware about the importance of PSA total screening and prostate biopsy.

**Keyword : PSA total, PSA screening, Prostate Cancer, Health Insurance**

## Session 3: Topics of Active Surveillance and PSA screening in Japan



**Moderator**

**Kazuhiro Suzuki**

*Department of Urology, Gunma University Graduate School of Medicine*

Kazuhiro Suzuki, MD. PhD

MD. 1988 Gunma University, Faculty of Medicine

Ph. D. 1996 Gunma University, Graduate School of Medicine

1997-1999 Post-doctoral fellow, Department of Hematology/Oncology, Professor Micheal Caligiuri

2004 Professor and Chairman, Department of Urology, Gunma University Graduate School of Medicine



### PSA screening in Japan

**Kazuto Ito**

*Kurosawa Hospital*

Kazuto Ito, MD, PhD, is currently Director of Kurosawa Hospital and Research Professor of Advanced Medical Science Research Center, Gunma Paz University, Takasaki, Japan. Previously, Dr. Ito was an Associate Professor in the Department of Urology at Gunma University Graduate School of Medicine between 2005 and 2018.

Dr. Ito graduated medical school in Gunma University, Japan in 1990 and got Ph.D. (Urology), Gunma University School of Medicine (Thesis: The Evidence of Estrogen Production in the Prostate) in 1997.

Dr. Ito conducted research at Erasmus Medical Centre, Rotterdam, Netherlands, between 2002 and 2003. His research interests include prostate cancer epidemiology, screening and biomarkers, including PSA and related indices.

Society: Japanese Urological Association/AUA/EAU/SIU/Japan Society of Clinical Oncology/Japanese Society of Endourology, etc.

Editorial Board: European Urology since 2008.

#### **Abstract**

The exposure rate of screening for prostate cancer in Japan is still low compared with that in the USA or western Europe. In Japan, Prostate cancer has been the most frequent male cancer in Japan since 2015 and the incidence was 92,021 in 2018. The mortality of prostate cancer has increased since 1970. It is estimated that 12,759 men died due to prostate cancer in 2020. Therefore, there is an urgent need to provide the best available countermeasures to decrease death due to prostate cancer. The benefit of prostate-specific antigen (PSA)-based screening is mortality reduction. On the other hand, screened men may still have risks of overdiagnosis, overtreatment and a decrease in quality of life after treatment. According to the latest Japanese Urological Association (JUA) guidelines on screening for prostate cancer published in 2018, PSA screening should be offered for men at risk of prostate cancer, based on fact sheets indicating the merits and drawbacks of screening for prostate cancer. The JUA has an important role to provide the best available screening system not only 1<sup>st</sup> line screening, but also 2<sup>nd</sup> line diagnostic tool including prostate health index (*phi*) and MRI, and subsequent appropriate treatment strategies, including an active surveillance and minimally invasive modalities, for men who want to be screened.



### Active Surveillance for early Prostate Cancer—PRIAS-JAPAN—

**Mikio Sugimoto**

*Department of Urology, Faculty of Medicine, Kagawa University*

#### **Education:**

Ph.D: Kagawa University Graduate School of Medicine, 1992

M.D.: Kagawa University Faculty of Medicine, 1988

#### **Appointments:**

Jul. 2018-present Professor & Chairman, Department of Urology, Kagawa University Hospital

Jan. 2006 -Jun. 2018 Associate Professor, Department of Urology, Kagawa University Hospital

1997-2006 Chief of Urology, Sakaide Municipal Hospital, Japan

1992-1997 Assistant Professor, Department of Urology, Kagawa University Hospital

Mar. 1988 Kagawa University, Medical School

#### **Member of academic societies**

Japanese Urological Association (Member of a delegation)

The Japanese society of Endourology (Qualified Surgeon for Laparoscopic G-U Surgery & Member of a delegation)

West Japan Urological Association (voting member)

Japan society of Clinical Oncology (Member of a delegation)

Japanese Society of Urologic Oncology (JSUO: Member of a delegation)

Japanese Society of Medical Oncology (JCS: Member of a delegation)

#### **Abstract**

Prostate cancer (PC) is one of the most prevalent male cancer worldwide. Especially, early PC is increasing rapidly also in Japan. Early detection by PSA test has led the reduction of mortality. On the other hand, overdiagnosis followed by overtreatment has emerged as a big problem. One of the realistic solutions of this is active surveillance (AS).

The Prostate Cancer Research International: Active Surveillance (PRIAS) study is the largest international prospective observational AS study that commenced in 2006. Japan has participated into the study as PRIAS-JAPAN (P-J) since 2010, and recruitment remains ongoing at 42 Japanese institutions. Enrollment to P-J have been steadily increasing and the number of patients has exceeded 1,000 by 2020.

Herein, we will present the interim results of P-J; the result of re-biopsy, the roll of pro-PSA, QOL and pathological findings of deferred prostatectomy and so on.

In PRIAS, as the long-term results of AS have proven to be quite safe, the inclusion criteria and follow-up protocol have gradually changed with time. For example, Gleason pattern 4 without cribriform and intra-ductal carcinoma of the prostate (IDC-P) is allowed, MRI and targeted biopsy is recommended to skip periodical biopsy and to reduce the number of needle biopsy cores etc. In near future, more precise biomarker, maybe gene marker to correctly select patients is needed.

AS strategy is a standard treatment for favorable prostate cancer in the world. Unfortunately, however, it is not yet fully used in Japan. One of the most important problems with AS is the lack of incentives in carrying out it. Assistance through the insurance system is desirable to make more effective use of AS in Japan.

AS is a logical and safe way to avoid overtreatment. We will need to work hard to increase the number of patients who benefit from it.



## Moderator

**Jun Hyuk Hong**

*University of Ulsan, Asan Medical Center, Seoul*

### Professor

Department of Urology, University of Ulsan College of Medicine, Asan Medical Center  
Seoul, Republic of Korea

### Education and Training

1984.3 - 1990.2 Seoul National University, Medical College. M.D. (1990)

1996.3 - 1998.2 Graduate School, University of Ulsan. M.S. (1998)

1998.3 - 2000.2 Graduate School, University of Ulsan. Ph.D. (2000)

### Professional Experience

2001. 3 - 2002. 2, Instructor, Department of Urology, Asan Medical Center

2002. 3 - 2006. 2, Assistant Professor, Asan Medical Center, University of Ulsan

2005. 8 - 2007. 6, Visiting Professor, University of Medicine and Dentistry of New Jersey, USA

2006. 3 - 2014. 8, Associate Professor, Asan Medical Center, University of Ulsan

2014. 9 - Present, Professor, Asan Medical Center, University of Ulsan

2013. 7 - 2018. 2, Chief, Center for Robot Surgery Training, Asan Medical Center

2018. 3 - 2020. 2, Chief, Center for Robot Surgery, Asan Medical Center

2018. 3 - Present, Chief, Center for Prostate Diseases, Asan Medical Center

2019. 1 - Present, Director, Physician Education and Training Department, Asan Medical Center

2016. 9 - 2021. 12, Secretary General, the APPS (Asia-Pacific Prostate Society)

2018. 3 - 2019. 9, Secretary General, the 36<sup>th</sup> KJUC 2019 Meeting (Seoul)

2019. 1 - 2020. 12, Secretary General, the KUA (Korean Urological Association)

2019. 3 - 2021. 2, President, the KPS (Korean Prostate Society)

2022. 1 - Present, President-elect, the KUA (Korean Urological Association)



## Moderator

**Osamu Ogawa**

*Japanese Red Cross Otsu Hospital*

Education: 1993: D. Med. Sci., Faculty of Medicine, Kyoto University

1982: M.D., Faculty of Medicine, Kyoto University

### Professional Training and Employment

2018-2019: President of Urological Association of Asia (UAA)

2010-2014: Secretary General of UAA

2010-2013: Director of Science of UAA

2021-present: Director, Japanese Red Cross Otsu Hospital

1998-2021: Professor and Chairman, Dept. of Urology  
Kyoto University Graduate School of Medicine

1996-1998: Associate professor, Dept. of Urology, Akita Univ.

1993-1996: Assistant professor, Dept. of Urology, Kyoto University

1991-1993: Postdoctoral fellow, Dept. of Biochemistry

Otago University, New Zealand

1982-1983: Resident in Dept. of Urology, Kyoto University



## IMRT for prostate cancer

**John Lederer**

*Department of Surgery, University of Hawaii*

### EDUCATION

Rice University B.A.	1976
Baylor College M.D.	1980
Internal Medicine Internship, Baylor College of Medicine Affiliated Hospitals	1980-1981
Internal Medicine 2nd Year Resident, Baylor College of Medicine	1981-1982
Internal Medicine Senior Resident, University of Utah Health Sciences Center	1982-1983
Radiation Oncology Resident, University of Utah Health Sciences Center	1986-1989

### PROFESSIONAL EXPERIENCE

Board Chairman	2014-2019
The Cancer Center of Hawaii	
Medical Director, Programs and Technology	2016-Present
The Cancer Center of Hawaii	
Manager, Radiation Oncologist, Pacific Radiation Oncology	2012-Present
Honolulu, Hawaii	
Medical Director	2009-2016
The Cancer Center of Hawaii	1991-Present
Assistant Professor, Department of Surgery	1989-Present
University of Hawaii	
Assistant Professor, Department of Surgery,	1991-Present
University of Hawaii	
Radiation Oncologist, Pacific Radiation Oncology, Honolulu, Hawaii	1989-Present
President, OnCare, Hawaii	1997-2002
Senior Vice-President, AmMed International	1997-2006
Medical Director, Radiation Oncology	1996-2005
The Queen's Medical Center, Honolulu, Hawaii	
President, Island Radiation Oncology	1996-2009
Chairman, Cancer Committee	1993-2000
The Queen's Medical Center, Honolulu, Hawaii	
Internist, Kelsey-Seybold Clinic, Houston, Texas	1984-1986
Instructor, Advanced Cardiac Life Support,	1983-1984
University of Utah, Salt Lake City, Utah	
Clinical Instructor, Department of Medicine,	1983-1984
University of Utah School of Medicine,	
Salt Lake City, Utah	

### **Abstract**

Intensity modulated radiation therapy (IMRT) has been utilized for prostate cancer over the last two decades. Initially, it was utilized predominantly for prostate radiotherapy for curative intent. Standard fractionation was utilized, usually requiring 8-9 weeks of daily treatments.

More recently investigations have been made into the utilization of IMRT for hypofractionated regimens requiring less treatments. Results have been favorable both with so-called moderate hypofractionation and extreme hypofractionation. Moderate hypofractionation usually requires 20-28 daily visits as opposed to 40-45 required for standard fractionation. Extreme hypofractionation, also known as SBRT or SABR, require approximately five treatments. Results have shown moderate hypofractionation to be non-inferior to standard fractionation therapy in terms of progression-free survival. Both GU and GI late toxicities have been similar. Early studies with SBRT indicate that it may approach the efficacy of

## Session 4: Treatment for Localized Prostate Cancer 1 Radiation therapy

brachytherapy in terms of progression-free survival. Studies have produced conflicting results regarding late toxicity.

IMRT has been utilized for SBRT for oligometastatic prostate cancer. Oligometastatic is usually diagnosed as four or less non-visceral metastases. Studies such as the STAMPEDE trial have indicated good results and potential cure for the patients with oligometastatic disease receiving SBRT treatments to their metastatic lesions and moderate hypofractionation radiation to the prostate.

This presentation will review the current data for moderate hypofractionation and severe hypofractionation in the treatment of carcinoma of the prostate in addition to the treatment of oligometastatic disease utilizing IMRT based SBRT.





## Permanent seed implantation prostate brachytherapy in Japan

Shiro Saito<sup>1</sup>, Yasuto Yagi<sup>2</sup>, Ken Nakamura<sup>2</sup>, Tomohiro Eriguchi<sup>1</sup>,  
Hiroyuki Yamanaka<sup>1</sup>, Tomohiko Matsushita<sup>1</sup>, Tetsuo Monma<sup>2</sup>

<sup>1</sup> Department of Urology and Prostate Cancer Center, Ofuna Chuo Hospital, Kanagawa, Japan,

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### PRESENT POSITION

- Chief of Prostate Cancer Center, Ofuna Chuo Hospital
- Visiting Assistant Professor of the Department of Urology, School of Medicine Keio University, Tokyo Japan
- Visiting Assistant Professor of the Department of Urology University of Ryukyus, Okinawa Japan

### EDUCATION

- Keio University Premedical School, Yokohama Japan  
April, 1976 to March, 1978
- Keio University School of Medicine, Tokyo Japan  
April, 1978 to March 1982

### PROFESSIONAL TRAINING AND PAST POSITIONS

RESIDENCY: • Department of Surgery, Keio University, Tokyo, Japan (1982-1984)

TRAINING: • Kasumigaura National Hospital, Tsuchiura, Japan (1985-1986)

• University of Ryukyus, Okinawa, Japan (1986-1987)

• Keio University, Tokyo, Japan (1987-1988)

POSITIONS: • Tachikawa Kyosai Hospital, Tachikawa, Japan (1988-1991)

• Keio University, Tokyo, Japan (1991-1992)

• Research Fellow of Memorial Sloan-Kettering Cancer Center  
New York, USA (1992-1994)

• Chief staff of Department of Urology, Keio University  
Tokyo, Japan (1994-1997)

• Chief of Department of Urology, NHO Tokyo Medical Center,  
Tokyo, Japan (1997-2021)

• Chief of “Japanese Permanent Seed Implantation Study Group (JPSS)”  
(2016 - present)

• Chief of Prostate Cancer Center, Ofuna Chuo Hospital  
Kanagawa, Japan (2021-present)

### **Abstract**

**Introduction:** Permanent seed implantation prostate brachytherapy (BT) started in 2003 in Japan. During the past 19 years, 120 institutes performed BT and more than 52,000 cases were treated around the country. NHO Tokyo Medical Center (NTMC) initially performed this treatment and 4,222 cases were treated until end of 2021.

**Material and Methods:** Between September 2003 and August 2010, 1,427 patients underwent BT for cT1-3N0M0 prostate cancer at NTMC. Among those patients, 514 were low risk, 751 were intermediate risk and 162 were high risk with basic NCCN risk classification. Prescription dose was 144 or 160Gy for cases treated with BT alone, and 110Gy boost of BT followed by 45Gy of EBRT for the combined cases. Neo-adjuvant hormone therapy was performed for 3-6 months only for those cases that need size reduction to avoid pubic arch interference or not to exceed maximum dose (1,300 MBq) originally established in Japan. None of the cases received adjuvant hormone therapy. Median follow up period was 12.3 years. Phoenix definition was used to determine biochemical failure and Kaplan-Meier analysis was performed to evaluate overall survival (OS), disease specific survival (DSS) and biochemical progression free survival (BPFS).

**Results:** Fifteen-year OS was 75.9%, DSS was 98.6% and BPFS was 88.5%. BPFS in low-, intermediate- and high-risk cases were 95.4%, 87.2% and 72.3%, respectively. Grade 3 or 4 (CTCAE v4.0) acute and late GU toxicity were seen in 0.5% and 1.5%, respectively. Acute and late GI toxicity were seen in 0% and 0.2%, respectively.

**Conclusion:** Effectiveness and safety of BT for localized prostate cancer have been shown in Japan.



## Experience of Proton Beam Therapy for Localized Prostate cancer in Tsukuba University

**Hiroyuki Nishiyama**

*Department of Urology, Faculty of Medicine, Tsukuba University*

Professor and Chairman, Department of Urology, Tsukuba University  
Vice president, Tsukuba University Hospital  
Project Leader, Tsukuba International Center for Digital Biotechnology  
Vice Director, Research and Development Center for Precision Medicine  
Chairman, Department of Urological Oncology, Japan Clinical Oncology Group (JCOG)

After graduating from Kyoto University School of Medicine in 1989, I trained in the Department of Urology and studied at the Imperial Cancer Research Fund in the U.K. from 1998 to 2000 as a research fellow to study the carcinogenesis mechanism of bladder cancer. In 2011, I became a professor at the Department of Urology, University of Tsukuba, Tsukuba, Japan. Currently, I am in charge of basic research and clinical practice related to urothelial carcinoma and other urologic cancers. In particular, he is leading a novel bladder-sparing therapy using immune checkpoint inhibitors in combination with radiotherapy and an investigator-oriented clinical trial for testicular tumors. I also serves on the advisory-board for global clinical trials and as chairman of the Japan-clinical Oncology group in the field of urologic oncology.

### **Abstract**

Although prostate cancer control using radiotherapy is dose-dependent, dose-volume effects on late toxicities in organs at risk, such as the rectum and bladder, have been observed. Both protons and carbon ions offer advantageous physical properties for radiotherapy, and create favorable dose distributions using fewer portals compared with photon-based radiotherapy. Thus, particle beam therapy using protons and carbon ions theoretically seems suitable for dose escalation and reduced risk of toxicity. However, it is difficult to evaluate the superiority of particle beam radiotherapy over photon beam radiotherapy for prostate cancer, as no clinical trials have directly compared the outcomes between the two types of therapy due to the limited number of facilities using particle beam therapy. As particle beam therapy for prostate cancer is covered by the Japanese national health insurance system as of April 2018, and the number of facilities practicing particle beam therapy has increased recently, the number of prostate cancer patients treated with particle beam therapy in Japan is expected to increase drastically. Here, we presented some data experienced in Tsukuba University about Chronoradiation therapy approach and hypofractionated approach. As for chronoradiation therapy, interestingly morning PBT for localized prostate cancer significantly ameliorated worsening LUTS and improved QoL compared with treatment around noon or late afternoon.

## Session 5: Luncheon Seminar: Topics of RARP



### Moderator

#### **Yukihiro Kondo**

*Professor & Chairman, Department of Urology, Nippon Medical School*

#### **【Academic history】**

1985, Graduated from Nippon Medical School

#### **【Work history】**

2000, Nippon Medical School, Department of Urology, Associate Professor

2009, Nippon Medical School, Department of Urology, Professor & Chairman

#### **【Affiliated society】**

The Japanese Urology Association

Japanese Society of Endourology and Robotics

American Urological Association

European Association of Urology

#### **【Qualification】**

Japanese Urology Association Specialist

Japanese Urology Association Preceptor

Japanese Society of Endourology and Robotics Technically Certified Doctor

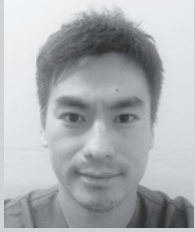


### Moderator

#### **Tomohiko Ichikawa, M.D., Ph.D**

*Professor and Chairman, Department of Urology, Graduate School of Medicine, Chiba University/ Director, Division of Clinical Genetics, Chiba University Hospital*

1984	M.D., Chiba University, Chiba, Japan
1989	Ph.D. (Doctor of Medical Science), Chiba University
1989-1991	Postdoctoral Fellow, Johns Hopkins Oncology Center, Baltimore, MD
1992-1997	Assistant Professor, Department of Urology, School of Medicine, Chiba University
1997-1998	Assistant Professor, Department of Urology, Teikyo University School of Medicine, Ichihara Hospital, Ichihara, Japan
1998-2001	Assistant Professor, Department of Urology, School of Medicine, Chiba University
2001-2004	Associate Professor, Department of Urology, Graduate School of Medicine, Chiba University
2004-current	Professor and Chairman, Department of Urology, Graduate School of Medicine, Chiba University
2017-current	Director, Division of Clinical Genetics, Chiba University Hospital



### Key anatomical structures and points of surgical procedure in robot-assisted radical prostatectomy —Achieving early recovery of urinary continence—

**Yuta Yamada**

*The University of Tokyo Hospital*

2008, Graduated from Tsukuba University

2009, The University of Tokyo Hospital, Department of Urology, Assistant Professor

2019, Chiba Tokushukai Hospital, Department of Urology, Director

2021, The University of Tokyo Hospital, Department of Urology, Lecturer

Membership of The Japanese Urological Association, Japanese Society of Endourology and Robotics, Japan Society of Clinical Oncology

Specialized in Urology, Urologic Oncology, Robotic Surgery, Laparoscopic Surgery

#### **Abstract**

We all know that urinary incontinence (UI) is still a common complication after robot-assisted radical prostatectomy (RARP). However, there are so many predictors of UI that are reported including age, prostate volume, cT stage, surgeon experience, and so on. Evaluating these predictors by linking them to anatomical structures may be important since these key structures may be preserved during the RARP procedure. I would like to present some predictors and the linked key anatomy of UI and also surgical procedures that may contribute to early urinary continence.



### Usefulness of Retzius-sparing technique to prevent postoperative urinary incontinence after robot-assisted radical prostatectomy (RARP)

Atsushi Okada, Shuzo Hamamoto, Teruaki Sugino, Shoichiro Iwatsuki, Toshiki Etani, Kazumi Taguchi, Taku Naiki, Noriyasu Kawai, Keiichi Tozawa, Takahiro Yasui

*Department of Nephro-urology, Nagoya City University Graduate School of Medical Sciences*

#### Atsushi Okada

Associate professor, Department of Nephro-urology, Nagoya City University, Graduate School of Medical Sciences, Nagoya, Japan

1998 M.D. Nagoya City University, Nagoya, Japan

2009 Ph.D. Nagoya City University, Nagoya, Japan

2011 to Now Associate Professor, Department of Nephro-urology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan

2008 to 2011 Instructor, Department of Nephro-urology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan

2005 to 2008 Department of Urology, Kainan Hospital, Yatomi, Japan

2000 to 2004 Department of Urology, Higashi Municipal Hospital, Nagoya, Japan

1998 to 2000 Resident in Nagoya City University Hospital, Nagoya, Japan

Membership of The Japanese Urological Association, Japanese Society of Endourology and Robotics, Japan Society in Urolithiasis Research, American Urological Association etc.

Specialized in Urology, Robotic Surgery, Laparoscopic Surgery, Kidney Stone Surgery and Research

#### Abstract

RARP for localized prostate cancer requires management of perioperative complications as well as cancer control and functional preservation. RARP mainly uses an anterior transperitoneal approach via the anterior bladder space (Retzius space), however, postoperative urinary incontinence may be prolonged depending on the patient's body shape and anatomical features. On the other hand, the recently developed Retzius sparing (RS)-RARP is performed only from the Douglas pouch on the posterior surface of the bladder, the technique is considered effective in preventing urinary incontinence by preserving the Retzius space structure. However, it is said that the cancer-positive rate at the resection margin is high, and there is concern that the surgical procedure is more difficult for Japanese patients with narrow pelvises.

We have introduced RS-RARP since 2017. With this technique, regardless of the number of cases experienced by the operator, the achievement rate of urinary continence (disappearance of incontinence) was high from the beginning of the introduction and was 92% at 3 months after the operation. RS-RARP is highly effective in preventing urinary incontinence because the structure of the bladder neck is preserved, the position of the entire bladder is maintained at a high position after prostatectomy, and it was thought that the length of the membranous urethra is extended. In addition, RS-RARP did not detect any postoperative inguinal hernia development, which is likely to occur with conventional RARP. However, this procedure requires relatively advanced techniques to peel off the correct layers around the prostate while avoiding interference from the robot arm in the narrow pelvic cavity and perform the urethral anastomosis upside down. It was characterized by a high margin positive rate on the anterior surface. For this reason, at present, the indication of RS-RARP is decided after obtaining information on the local diagnosis of cancer by performing targeted biopsy using MRI images.

In this presentation, regarding the usefulness of RS-RARP, which exerts a high urinary incontinence suppression effect regardless of the operator's experience, ideal surgical indications based on biopsy results, points to be noted in the early stages of introduction, and common problems outline about.



### Moderator

**Levent Türkeri**

*Department of Urology, Acibadem University Altunizade Hospital, Istanbul, Turkey*

Dr. Türkeri is a Professor of Urology and his main area of expertise is Uro-oncology involving robotic, laparoscopic and open surgery. Currently, he is the chief of the Department of Urology at Acibadem M.A. Aydınlar University Altunizade Hospital. He was one of the founding members of EAU Section of Oncological Urology (ESOU) and involved with many national and international societies such as AUA, EAU, AAEU, URS and APPS.



### Moderator

**Yasutomo Nasu**

*Okayama University*

#### Field of Research

uro-oncology, minimally invasive treatments including brachytherapy and robotic surgery, translational research.

#### Education

Okayama University Medical School Okayama, Japan, 1975-1981	M. D.	Medicine
Okayama University Medical School Okayama, Japan, 1981-1986	Ph. D.	Urology

#### Professional Experience

1981-1986	Resident, Department of Urology, Okayama University Hospital, Japan
1991-1996	Assistant Professor, Department of Urology, Okayama University Hospital, Japan
2004-2009	Associate Professor, Department of Urology, Okayama University Hospital, Japan
2010-2015	Professor and Vice Director at Center for Advanced Clinical Medicine, Okayama University Hospital, Japan
2013-2016	Vice Director, Okayama University Hospital, Japan
2015-2022	Professor & Chairman, Department of Urology, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University
2016-2019	Dean, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University
2019-present	Executive Director for Research/Vice President, Okayama University



## Robot-assisted radical prostatectomy using hinotori

**Nobuyuki Hinata**

*Department of Urology, Hiroshima University Graduate School of Biomedical and Health Sciences*

1998	Resident, Kobe University Hospital
2006	Attending surgeon, Shinko Hospital
2010	Assistant professor, Tottori University
2012	Assistant professor, Kobe University
2015	Research fellow, Roswell Park Cancer Institute
2016	Associate Professor, Kobe University
2021	Professor and Chairman, Hiroshima University

### Abstract

To evaluate the safety and efficacy of the hinotori™ Surgical Robot System in preclinical and clinical studies, preclinical studies were conducted in ten living female porcines and four fresh male cadavers. Different types of urologic surgical procedure were performed by experienced urological surgeons using the hinotori system: partial nephrectomy, vesicourethral anastomosis, and pelvic lymph node dissection in porcines, and partial nephrectomy, radical prostatectomy, and pelvic lymph node dissection in cadavers. In a clinical study, radical prostatectomy was performed in ten patients with localized prostate cancer, to evaluate safety and efficacy. The primary endpoint was completion of the procedure, and the secondary endpoints were operation time, warm ischemic time, blood loss, and safety profiles including device errors and extracorporeal arm collisions.

The preclinical results were similar to those reported for the da Vinci surgical system. The performance of the hinotori was equivalent to that of the da Vinci Xi, based on global assessment by the surgeons. Safety and efficacy were confirmed in a first-in-human clinical study of hinotori-assisted radical prostatectomy in ten patients with prostate cancer. In all cases, the procedures were successfully completed as planned, and no perioperative adverse events were observed. Safety and efficacy of the newly developed, robot-assisted hinotori surgical system were shown in the present preclinical and clinical studies. Further studies are required to confirm its clinical efficacy.



## Robotic Prostatectomy 2022: SP Retzius-Sparing & Perineal.

**Koon Ho Rha**

*NAVER Healthcare Lab*

### **EDUCATION**

2016 Harvard School of Public Health “Healthcare Executives Leadership Strategies”  
2015 Yonsei University School of Public Health “Globalization of Healthcare”  
2010 Harvard School of Public Health “Leadership in Academic Medicine”  
2002-2003 Johns Hopkins University, School of Business/Medicine  
: “Business in Medicine” Certificate Program”, Baltimore, MD, USA  
(courses in managed care, accounting, health care finance, and leadership)  
1993-1999 Yonsei University, Graduate School, Seoul, Korea; PhD  
1988-1992 Yonsei University, Seoul, Korea; MD (Graduated with Honors)  
1980-1984 South Pasadena High School, South Pasadena, CA, USA

### **POSTDOCTORAL TRAINING**

2002-2003 Society for Urology and Engineering Fellow  
Johns Hopkins Hospital, Baltimore, Maryland, USA  
1995 Visiting Resident; Urology, Mayo Clinic, Rochester, Minnesota, USA  
1993-1997 Resident, Urology, Severance Hospital, Yonsei University, Seoul, Korea

### **HOSPITAL/ACADEMIC APPOINTMENTS**

2021.1- present: Director, NAVER Healthcare Lab  
2016.11- 2020.12: Chief Strategy Officer, Yonsei University Health System  
2014.9. - 2016.8: Chief Operating Officer, Severance Hospital, Yonsei University  
2012.9 - 2014.8: Associate Dean, Academic Affairs, Yonsei University  
2002.4. - present: Professor; Department of Urology, Yonsei University  
2002 - 2003 Faculty (Visiting Assistant Professor); Johns Hopkins University, USA  
2000 - 2002.3.: Instructor in Urology, Yonsei University, College of Medicine  
1998 - 2000: Urologist in Chief, Capital Armed Forces Hospital, Seoul, Korea

### **CERTIFICATION AND LICENSURE**

2003 DaVinci Certification 2003 Zeus Certification  
1997 Korean Board of Urology (#1108)  
1992 ECFGM Certification (#0-457-651-8)

### **PATENTS**

Rha KH and Yang SC. (2002), “Surgical instruments and method for creating anatomic working space in minilaparotomy procedure”, US Patent No. 6,878,110

### **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

Fellow, American College of Surgeons (FACS)  
Past President, Engineering and Urology Society, USA  
Expert, International Healthcare Subject Matter Experts (US Department of Army)

### **SCI PEER-REVIEWED SCI PUBLICATIONS (350)**

**CLINICAL EXPERIENCE : > 3500 robotic cases (3000 prostatectomies)**

**Live Surgery/Proctorship in 15 different countries including USA, France, Italy  
Korean Robot (REVO-i) Prostatectomy (2016)**



## Session 6: Treatment for Localized Prostate Cancer 2 RARP: New Platform

### **Abstract**

Since early 2000's robotic prostatectomy has revolutionized how prostate cancer is treated. With advent of daVinci SP single port platform, now another avenue of new ways how we perform the procedure is explored.

As first described in 2010 by Bocciardi and Galfano in Milan, retzius sparing has become a minimally invasive way of removing prostate. Perineal prostatectomy was the first surgical treatment of localized prostate cancer described by Hugh Hampton Young of Johns Hopkins Hospital in early 1900's.

Now both procedures are explored by SP platform and surgical technique will be discussed in this presentation.



### Moderator

**Dennis Serrano**

*University of The Philippines, College of Medicine*

DENNIS P. SERRANO MD, MHA

Urology/Oncology, Robotic Surgery, Kidney Transplantation

Associate Professor VII, University of the Philippines College of Medicine  
Executive Vice President, St. Luke's Medical Center, Global City

Past President, Foundation for the Advancement of Surgical Education

Past President, Philippine Urological Association (2009), Philippine Society of Urologic Oncologists (2017) and Philippine Society for Transplant Surgeons (2017).

Former Chairman, Philippine Board of Urology (2015)

Chief of Urology and the Integrated Organ Transplant Unit, Philippine General Hospital

DR, SERRANO is an Associate Professor of Urology and Kidney Transplantation at the University of the Philippines College of Medicine.

CHAIR of the DIVISION OF UROLOGY at the DEPARTMENT OF SURGERY in the UNIVERSITY OF THE PHILIPPINES COLLEGE OF MEDICINE- PHILIPPINE GENERAL HOSPITAL.

He is also the former CHIEF of the INSTITUTE OF UROLOGY, at the ST. LUKE'S MEDICAL CENTER GLOBAL CITY, and is now Executive Vice President of the same.

He is the Past President of the PHILIPPINE SOCIETY OF UROLOGIC ONCOLOGISTS and also the Past President of the PHILIPPINE SOCIETY FOR TRANSPLANT SURGEONS from 2017-2018.

He was President of the PHILIPPINE UROLOGICAL ASSOCIATION in 2009 and Chairman of the PHILIPPINE BOARD OF UROLOGY IN 2015. He is Board Member of the Philippine Board of Transplant Surgeons. He likewise sits in the Board of the ASIAN-PACIFIC PROSTATE SOCIETY and the ASIAN TRANSPLANT SOCIETY. He is an International Member of the AMERICAN UROLOGICAL ASSOCIATION as well as the EUROPEAN ASSOCIATION OF UROLOGY.

He was member of the ASIAN CONSENSUS PANEL OF THE NATIONAL CANCER CARE NETWORK, 2015.

He is an Intuitive-Certified Robotic Surgeon at the St Luke's Medical Center Global City where he heads the Section for Robotic Urologic surgery. In 2010, he pioneered the use of Robotics in Radical Prostatectomy for the treatment of Prostate cancer in St. Luke's Medical Center. In 2018, he launched the robotic urology program at the Philippine General Hospital. He has done hundreds of robotic radical prostatectomy during his career.

He graduated from the UP College of Medicine (UPCM) Integrated Arts and Medicine (INTARMED) program and attained his Medical Degree in 1989.

He took his residency training in UROLOGY at the PHILIPPINE GENERAL HOSPITAL where he finished in 1994. In 1995-1996, he pursued and completed his subspecialty Fellowship Training in UROLOGY/RENAL TRANSPLANTATION at the CLEVELAND CLINIC FOUNDATION in Cleveland, Ohio, USA.

In 2005, he attained a MASTERS DEGREE in HOSPITAL ADMINISTRATION from the College of Public Health, University of the Philippines, Manila. His research interests and publications include urologic oncology, prostate diseases and renal transplantation.



## Moderator

**Takeshi Shichijo**

*Department of Urology, Showa University School of Medicine, Tokyo, Japan*

### Education:

1996-2000 Showa University, School of Medicine, Tokyo, Japan  
Degree: Doctor of Medicine

### Professional experience:

2000-2001 Instructor, Showa University School of Medicine.  
2001-2003 Medical Staff in Urology  
National Tokyo Organization Disaster Medical Center, Tokyo.  
2003-2004 Instructor, Showa University Northern Yokohama Hospital.  
2004-2006 Instructor, Showa University School of Medicine.  
2006-2008 Instructor, Showa University Fujigaoka Hospital.  
2008-2010 Instructor, Showa University School of Medicine.  
2010-2014 Medical Staff in Urology  
Tokyo Metropolitan Ebara Hospital  
2014-2016 Medical Staff in Urology  
National Tokyo Organization Disaster Medical Center, Tokyo.  
2016-2017 Assistant Professor of Urology.  
Showa University School of Medicine.  
2017-2019 Assistant Professor of Urology.  
Showa University Northern Yokohama Hospital.  
2019- Associate Professor of Urology.  
Showa University School of Medicine.



### Application of dehydrated human amnion/chorion membrane on patients undergoing Robotic Assisted Radical Prostatectomy (RARP)

Yen Chuan Ou MD, PhD

*Tung's Taichung MetroHarbor, Hospital (TTMHH), Taichung, Taiwan*

Dr. Yen-chuan Aaron Ou is Dean of R&D and Innovation Center, Tung's Taichung MetroHabor, Taichung, Taiwan. He is Secretary General of Asian Robotic Urological Society (ARUS) since 2019.

Dr. Ou is the Professor of Department of Urology at the National Chi-Nan University, National Chung-Hsing University and Chung Sang Medical University. He got his medical degree at National Defense Medical University in 1986. From 1986 through 1991, he finished the residency training and served as a visiting surgeon at Taichung Veterans General Hospital. From 1997 to 1999, he received his basic science training as Research Associate at Leland WK Chung PhD's Lab of Department of Urology of University of Virginia, USA. He obtained Ph.D degree at Institute of Medicine of Chung Sang Medical University in 2004.

Dr. Ou is a renowned urological oncology scientist and a famous international speaker. His research interest is to study signal transduction pathway of renal cell carcinoma, precision medicine of urological cancer and translational research. He is founder of Prostate Disease Center in 2005 and Taiwan Urological Cancer Association in 2008. He received robotic surgical training under Mentors Dr. Patel in 2005, Dr. Tewari in 2009 and Dr. Wiklund in 2013. He already did robotic urologic surgeries more than 3300 cases including radical prostatectomy, partial nephrectomy radical cystectomy and reconstruction surgery. He got Global Award of best paper of British Journal Urology International in 2012 and Asian Journal of Andrology (AJA) Outstanding Paper Award of 2016.

Dr. Ou acquired da Vinci Distinguish Robotic Surgeon Award for achievement in Urological Surgery from Intuitive Surgical in 2014, 2016 and 2018.

Prof. Ou published more than 300 peer-review papers and is a reviewer of many journal for example, European Urology, Journal of Urology, British journal of Cancer, Urology and European Journal of Surgical Oncology, Urology.

#### Abstract

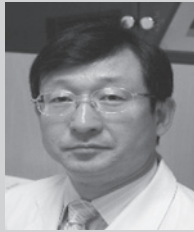
**Introduction:** The use of dehydrated human amnion/chorion membrane (dHACM) allograft wrapped around the NVB (neurovascular bundle) is adopted during a robotic-assisted radical prostatectomy (RARP). We analyze the efficacy of dHACM for the urinary continence and potency postoperatively.

#### Materials & Methods:

Totally, 37 men was enrolled from Oct. 2020- Oct. 2022. The mean age was 66 years. Mean PSA level was 8.28 ng/ml. The clinical stage was cT1c (N=2), cT2a (N=11), cT2b (N=14) and cT2c (N=10). The Gleason score was group 1 (N=14), group 2 (N=15), group 3 (N=5), group 4 (N=1), group 5 (N=2). Bilateral and unilateral neurovascular bundle (NVB) preservation was done in 9 and 27 patients respectively. The dHACM 3x2 cm was applied in unilateral side was 18 patient and bilateral side in 19 patients. Urinary continence was defined as no wearing of pad. Potency was defined as the ability to achieve and maintain satisfactory erections firm enough for sexual intercourse, with or without the use of PDE-5 inhibitors.

**Results:** The pathology stage was pT2a (N=7), pT2b (N=4), pT2c (N=13) and pT3a (N=13). Postoperatively, urinary continence rate was 82% at one month and 100% at 3-month. Potency rate was 47%, 67%, 80% and 93% at 3-, 6-, 9- and 12- month respectively. No patients were noted biochemical recurrence during mean follow-up 10 months.

**Conclusion:** Application of dehydrated human amnion/chorion membrane during patients undergoing Robotic Assisted Radical Prostatectomy (RARP) is simple and feasible. We demonstrated that dHACM can enhance return to urinary continence and potency. More cases and controlled cohort study is need to prove efficacy of return of sex function and influence of biochemical recurrence after RALP.



## Robot Assisted Radical Prostatectomy(RARP): Techniques to Preserve Potency and Continence

**Chung-Soo Kim, MD.**

*Ewha Womans University Mokdong Hospital*

**Present Position:** March 2022-present, Professor  
Ewha Womans University Mokdong Hospital

**Academic or Medical Associations Position:**

Chairman, Society of Antiaging & Urological Integrative Medicine  
Mediator : Seoul High Court of Justice

**Educational background**

February 26, 1983 MD, Bachelor, College of Medicine, Seoul National University, Seoul, Korea  
September 30, 1993 PhD. College of Medicine, Seoul National University, Seoul, Korea

**Professional background**

1990-2022 Professor, Asan Medical Center, University of Ulsan College of Medicine  
2011-2015 Chairman, Asan Life Science Research Institute  
2011-2012 President, Asian Pacific Prostate Society  
2008-2009 Chairman, Department of Urology, Asan Medical Center, University of Ulsan College of Medicine  
2006-2007 President, The Korean Prostate Society

**Research Interests:** Urologic Oncology with robot surgery,  
Prostate disease  
Urological Integrative Medicine  
Antiaging

### Abstract

Prostate cancer can be managed with active surveillance, radical prostatectomy, radiotherapy or focal treatment according to life expectancy, overall health, tumor characteristics. Radical prostatectomy is performed to cure the localized prostate cancer patients or the patient with surgical indications.

Minimally invasive radical prostatectomy, especially RARP is the main surgery in prostate cancer treatment as compared with open surgery. The ideal procedure of radical prostatectomy is to achieve maximum oncological efficacy while minimizing associated side effects, such as erectile dysfunction and urinary incontinence. RARP is considered as surgery with consistent oncological outcome and low complication rates. Surgeon experience and surgical technique affect RARP outcomes.

Urologic oncologists developed their own techniques to achieve good oncological outcomes and to minimize main complications such as impotence and incontinence.

I also modified my RARP technique to increase the effectiveness and to decrease complications.

Avoiding or minimizing injury to the neurovascular bundle (NVB) during robot-assisted radical prostatectomy (RARP) is critical for preservation of erectile function. I start to dissect NVB at bladder neck 2 and 10 O'clock sites after bladder is open and separate NVB from prostate base. I do not use electrical coagulator but use the metal surgical clips during nerve-sparing RARP not to injure nerve fibers. I think that it is important to preserve NVB by dissecting it along the prostate base contour. The small arteries and veins that supply prostate are clipped and divided. The whole vessels of NVB just lateral to prostate base is dissected and preserved except the ventral area from 10 to 2 O'clock. The lateral upper base of prostate can be exposed with this dissection. NVB is incised at 2 O'clock site at right side and at 10 O'clock site, at left side. NVBs are dissected distally down to apex area with medial traction of prostate. NVB can be peeled off from prostate with pushing it after medial traction of prostate. Bleeding points are controlled with metal clips.

After dissection of NVB, dorsal vascular complex is incised with monopolar scissors to expose the urethra. The prostate apex is dissected. Prostatourethral junction can be better exposed with traction of prostate. Urethra is incised at prostatourethral junction to maximize the preservation of urethral stump.

DVC is sutured with 2-0 vicryl transversely from 10 to 2 O'clock sparing both lateral edges.

Posterior reconstruction of rhabdosphincter is carried out with 3-0 V-lock. Vesicourethral anastomosis is performed continuously with 3-0 monocryl. Simplified anterior reconstruction is done with 3-0 V-lock.

My technique of RARP is to maximize the potency and the continence by preserving NVB and increasing the length of urethral stump. It seems that this technique is easy to follow, safe and effective for recovery of potency and continence.

## Session 8: Target biopsy and Focal therapy



### Moderator

**Go Kimura**

*Department of Urology Nippon Medical School*

#### **MEDICAL LICENSE/LICENSE**

Medical License: 1984year; Number: 283208

Japanese Board Certified Urologist 1990 year: Number: 900080

Japanese Board Certified Instructor 1995 year: Number: 950083

#### **EDUCATION AND PROFESSIONAL EXPERIENCE**

1984 Graduate from Nippon Medical School (NMS); MD  
1984 Teaching associate of 1st Department of Pathology, NMS  
1985 Clinical fellow, Department of Urology, NMS  
1991 Graduate from NMS, Graduate School of Medicine; PhD  
Teaching Associate of Department of Urology, NMS  
1992-1994 Research fellow, Department of Biology, City of Hope National Medical Center, Duarte, CA. USA  
1995-2000 Assistant Professor, Department of Urology, NMS  
1996-1997 Head of Urology Department, Kitamurayama Public Hospital  
1997-2001 Department of Urology, NMS Hospital  
2000-2022 Associate Professor, Department of Urology, NMS  
2001-2002 Department Manager, Department of Urology, NMS Chiba-Hokusoh Hospital  
2002-present Department of Urology, NMS Hospital  
2002-2007 Department Manager, Department of Urology, NMS Hospital  
Oct., 2022- Professor, Department of Urology, NMS

#### **SPECIALITIE**

Genitourinary oncology, urologic clinical pathology, Artificial intelligence

#### **PROFESSIONAL SOCIETIES**

Japanese Urological Association, American Urological Association, European Association of Urology, American Society of Clinical Oncology, Japan Society of Clinical Oncology, European society of Medical Oncology, Japanese Society of Medical Oncology, Japanese Society of Pathology, Japanese Society of Endourology, Japanese Society of Dialysis Therapy, Japanese Society of Nephrology, Japanese Society for Palliative Medicine, Japanese Association for Medical Artificial Intelligence, Japanese Society of Renal Cancer

#### **BOARD**

President, Medical Association of Nippon Medical School, Vice President, Japanese Society of Renal Cancer, Director, Prostate Cancer Education Council in Japan, Delegate, Japan Society of Clinical Oncology, Delegate, Japan Society of Urologic Oncology, Delegate, Japan Medical Association, Delegate, Tokyo Medical Association

## Session 8: Target biopsy and Focal therapy



### Moderator

**Seong Il Seo**  
*Samsung Medical Center*

#### **Present Position:**

: Professor, Department of Urology, Sungkyunkwan University, Samsung Medical Center

#### **Academic or Medical Associations Position:**

: President, Korean Prostate Society (present)  
Director of Academic Committee, Korean Urological Association (present)  
Korean Urologic Oncology Society, Director (present)

#### **Educational background & professional experience (in sequence of the latest year):**

##### EDUCATION

- 2002. 08 - Ph.D. Postgraduate School, The Catholic University of Korea
- 1998. 02 - Master Degree, Postgraduate School, Seoul National University
- 1992. 02 - M.D. Seoul National University College of Medicine,

##### Professional experience

- Sungkyunkwan University, Samsung Medical Center
  - 2016. 04 - present: Professor, Department of Urology
  - 2007. 09 - 2016. 03: Associate professor, Department of Urology
- The Catholic University of Korea
  - 2004. 04 - 2007. 08: Assistant Professor, Department of Urology
  - 2002. 03 - 2004. 03: Instructor, Department of Urology
  - 2005. 09 - 2006. 19: Visiting professor, Emory University (USA) Winship Cancer Institute

#### **Research Interests:**

: Kidney cancer, Prostate cancer, Robotic surgery



### Robot-assisted Magnetic Resonance Imaging-ultrasound Fusion Transperineal Targeted Biopsy

**Henry Ho**

*Department of Urology in Singapore General Hospital*

Assoc Prof Henry Ho is a senior consultant with the Department of Urology and the current Chairman, Division of Surgery & Surgical Oncology, Singapore General Hospital (SGH) & National Cancer Centre Singapore (NCCS). Dr Ho received his MBBS and Master of Medicine (Surgery) from the National University of Singapore, and was subsequently elected a Member of the Royal College of Surgeons of Edinburgh. Dr Ho was the first doctor in SGH/SingHealth to be awarded the Singapore-Stanford Biodesign (SSB) Fellowship Award by A\*STAR in 2011.

A passionate medical device innovator, he contributed significantly to the successful set-up of the Device Development Office - now the Medical Technological Office (MTO) SingHealth - where he held the Director appointment since 2012. He is the Vice-Chair ((Research) of the Surgery Academic Clinical Program and also serves as the Chairman of the Prostate Cancer Awareness and Survivorship Program Advisor Panel of the Singapore Cancer Society.

Dr Ho also holds appointments as Adjunct Associate Professor with Duke-NUS Medical School and Clinical Senior Lecturer with NUS-Yong Loo Lin School of Medicine.

#### **Professional Appointments and Committee Memberships**

Chairman, Division of Surgery & Surgical Oncology, SGH & NCCS

Adjunct Associate Professor, Duke-NUS Medical School

Adjunct Associate Professor, NUS Yong Loo Lin School of Medicine

Singapore Urological Association

European Association of Urology



## Session 8: Target biopsy and Focal therapy



### Focal therapy with high-intensity focused ultrasound for the localized prostate cancer based on magnetic resonance imaging-transrectal ultrasound fusion image-guided target biopsy in Japan

Sunao Shoji, MD., PhD., MBA.

*Department of Urology, Tokai University School of Medicine*

1996-2002: Medical School: Tokyo Medical University, School of Medicine

2002-2004: Residency: Department of Surgery, St. Luke's International Hospital Tokyo

2004-2008: Postgraduate Course in Department of Urology, Tokai University School of Medicine

2008-2010: Assistant Professor, Department of Urology, Tokai University School of Medicine

2011-2013: Department of Urology, University of Southern California, Los Angeles, USA

2018-2020: Master's Course in Health Master of Business Administration, International University of Health and Welfare

Present Position: Associate Professor, Department of Urology, Tokai University School of Medicine

#### Academic and Professional Awards:

2008: 11th World Congress of Endoscopic Surgery Best Poster Prize

2013: Best Poster Winner, American Urological Association Annual Meeting 2013

2016: Top 10 Abstract Award: Engineering and Urology Society 32nd Annual Meeting

2019: Aso Prize (Japanese Society of Endourology), Sakaguchi Prize (Japanese Urological Association)

#### Abstract

**Introduction:** Focal therapy is a diagnosis-based investigational treatment option for localized prostate cancer (PC) that cures clinically significant PC (csPC) while preserving the anatomical structures related to urinary and sexual function. **Objectives:** The objective is to evaluate clinical outcomes of focal therapy with high-intensity focused ultrasound (HIFU) for the localized PC for Japanese. **Patients and Methods:** Focal therapy with HIFU was performed in patients with serum prostate-specific antigen (PSA) levels  $\leq 20$  ng/mL, and csPC was detected using magnetic resonance imaging (MRI)-transrectal ultrasound (TRUS) fusion image-guided target biopsy and 12-core transperineal template-assisted systematic biopsy. Patients' oncological and functional outcomes were analyzed prospectively. **Results:** Two hundred three patients were included in the study. Their median age was 69 years old; and median PSA level was 6.34 ng/mL. Patients' risk classifications were low: n= 54, intermediate: n=71, and high: n=78. Catheterization and hospitalization times were within 24 hours after treatment in all patients. Biochemical disease-free rate was 88.7% during 36 months follow-up when use of Phoenix ASTRO definition. Urinary functions, including IPSS (P=0.012), OABSS (P=0.010), maximum urinary flow rate (P=0.017), and IIEF-5 (P=0.022), had significantly deteriorated at 1 month after treatment, but improved to preoperative levels at 3 or 6 months. Rates of severe erectile dysfunction who had the functions were 24% at 12 months after treatment. **Conclusions:** This clinical outcome focal therapy for localized PC for Japanese was promising for long-term results. Further large studies are required to verify oncological and functional outcomes from this treatment for patients with localized PC.

## Session 9: Ablation therapy for prostate cancer



### Moderator

**Robert G. Carlile**

*Department of Surgery, University of Hawaii*

1992 - 2020

Urology Practice at Queens Medical Center  
Honolulu, Hawaii

Clinical Assistant Professor of Surgery, John A Burns School of Medicine  
University of Hawaii, Honolulu, Hawaii

1987 - 1992

Surgery and Urology Residency  
University of Utah School of Medicine, Salt Lake City, Utah

1987

Doctor of Medicine  
John A Burns School of Medicine,  
University of Hawaii, Honolulu, Hawaii



### Moderator

**Yoshiyuki Kakehi**

*Kagawa University*

#### **Current job**

President, Kagawa University

#### **Education**

Graduated from Kyoto University Faculty of Medicine in 1981(M.D.)

Graduated from Kyoto University Graduate School of Medicine in 1989 (Ph.D.)

#### **Employment**

2000: Associate Professor, Department of Urology, Kyoto University Graduate School of Medicine

2001-2017.9: Professor and Chairman, Department of Urology, Kagawa University Faculty of Medicine

2017.10-present: President, Kagawa University

#### **Academic activities**

- 1) President of the Japan Society of Urologic Oncology (2015-2017)
- 2) Group leader of JCOG (Japan Clinical Oncology Group) GU-cancer group (2011-2018)
- 3) Principal investigator of PRIAS-Japan (studies on active surveillance for low risk prostate cancer in Japan)
- 4) Chief editor of the 3<sup>rd</sup> edition of clinical guideline for prostate cancer (Japanese Urological Association)

#### **Memberships**

- 1) The Japanese Urological Association
- 2) Japan Society of Clinical Oncology
- 3) Japanese Society of Clinical Oncology
- 4) American Urological Association
- 5) European Association of Urology



### Irreversible electroporation (IRE) for prostate cancer using PSMA PET-CT

Ji Youl Lee, Dongho Shin, Seung ah Rhe, Chang Eil Yoon, Hyeok Jae Kwon, Hyong Woo Moon, Yong Hyun Park

*Department of Urology, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea*

**Name:** Ji Youl Lee, M.D. & Ph.D.

#### Education & Degree

1989: Graduated from Medical College, The Catholic University of Korea

1990 - 1992: Master of Medical Science, Catholic University Graduate School

1997 - 2000: Doctor of Medical Science, Catholic University Graduate School

#### Experience

##### In hospital

2009 - 2017: Director, Urology Oncology Team, Seoul St. Mary's Hospital

2013 - 2017: Director, Outpatient Clinics, Seoul St. Mary's Hospital

2014 - 2021: Director, Department of Urology, Seoul St. Mary's Hospital

2017 - 2021: President of Smart Hospital (Vice-president of Seoul St. Mary's Hospital)

##### Academic Position

2020 - present: Chairman of Department of Urology

2006 - present: President, Korea Prostate Bank

2014 - present: Director, Catholic Prostate Institute, The Catholic University of Korea

2015 - 2017: President, Catholic Central Bio-Bank

2015 - 2019: Director, Catholic Cancer Research Institute

##### Social Position

2017 - Present: President Asia Pacific Society of Uro-oncology (APSU)

2018 - 2020: President, Asian Pacific Prostate Society (APPS)

2017 - 2019: President, Korean Prostate Society (KPS)

2020 - 2022: President, Korean Society of Urological Research (KSUR)

#### Abstract

**Background:** To demonstrate the clinical usefulness of Prostate-specific membrane antigen (PSMA) positron emission tomography (PET) computerized tomography (CT) for Irreversible electroporation (IRE) in prostate cancer patients.

**Methods:** From January to May 2021, 17 men were diagnosed with localized prostate cancer through preoperative mpMRI and [<sup>18</sup>F] florastamin PSMA PET-CT imaging, followed by transperineal MRI-ultrasound fusion guided biopsy. The patients underwent IRE focal therapy at the target lesions under general anesthesia. To evaluate the treatment outcome, serum PSA levels were followed up in the 1<sup>st</sup>, 3<sup>rd</sup>, 6<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup> months, and mpMRI was taken in the 1<sup>st</sup> and 12<sup>th</sup> months, followed by MR fusion biopsy in the 12<sup>th</sup> month post IRE.

**Results:** The mean age of the patients was 66.1 ± 9.3 with a median PSA of 7.5ng/ml. After the treatment, PSA nadir was 4.06 ± 3.4 and 11 (64.7%) achieved decline of PSA more than 50% from the baseline. Rate of negative biopsy for prostate cancer is 88%(15/17) at 12 months MR fusion biopsy after the IRE treatment. Among the relapsed cases, 1 (6.9%) patient recurred at margin of treated area and 1 (6.9%) patient was from outfield recurrence. When excluding initial four patients, none of the patients had cancer recur.

**Conclusions:** When treating with IRE focal therapy, PSMA-PET CT is a potentially valuable diagnostic approach for localizing prostate cancer; it supports the detection of lesions with conventional mpMRI, enabling to perform the procedure more completely.



### The routine use of high intensity focused ultrasound for the treatment of localized prostate cancer

Po Hui Chiang, M.D., Ph.D., E.M.S.

*Jhong Siao Urological Hospital*

Po Hui Chiang is director of the Jhong Siao Urological Hospital and honorary president of Taiwan Urological Oncology Association. Professor Chiang received his medical degree (1986) and his doctorate of philosophy (1995) from Kaohsiung Medical University, Taiwan. He received his executive master of science (E.M.S.) degree from the National Taiwan University in 2015. He is an author of more than 167 publications in peer-reviewed journal, mainly in the areas of urothelial carcinoma, prostate cancer, BPH and pharmacology. He served as the president of Taiwan Urological Oncology Association from 2008 to 2014 and 2018 to 2020, respectively. Professor Chiang has been the director of Taiwan Urological Association Council from 2006 to 2018 and director of interventional ultrasound society since 2015. He served as the chief of department of urology, Chang Gung Memorial Hospital-Kaohsiung Medical Center, Kaohsiung from 2005 to 2009. He also served as visiting scientist at Kyoto Prefectural University of Medicine, Kyoto, Japan in 1994 and visiting professor at University of Texas Medical School, Houston, USA in 2000. He completed postdoctoral research at University of Pittsburgh, Pennsylvania, USA (2000-2001). He got the best reviewer award from the Journal of Urology in 2014 and best article in British Journal of Urology international in 2013. His recent research interests include minimally invasive treatments of prostatic diseases (laser treatment of BPH, PCNL, cryotherapy of renal tumor and HIFU of prostate cancer) and signal pathway of urological cancer (target therapy and immunotherapy). The H-index of Prof. Chiang is 32.

#### Current Appointment:

President of the Jhong Siao Urological Hospital  
Professor, Chang Gung Memorial Hospital  
Professor, Kaohsiung Medical University  
Honorary President, Taiwan Urological Oncology Association  
President of Chin Pei Medical Foundation

#### Abstract

I have performed edap Albatherm HIFU for the treatment of localized prostate cancer since 2009. More than 600 patients have been treated. In comparison with radical prostatectomy, brachytherapy and cryotherapy, we have shown the oncological outcomes of HIFU are not inferior to those of other treatments. However, the complications such as incontinence and erectile dysfunction are much less than other treatments.

Sonablate HIFU for the treatment of prostate cancer has also been introduced since 2021. More than 60 patients have been treated at Jhong Siao hospital. In comparison with the previous Albatherm HIFU, it has the feedback sensor for the treated area. It is more delicate and precise, but is more time-consuming. The oncological control for the low and intermediate risk patients are excellent. Besides, HIFU with salvage radiotherapy can also rescue the cancer control for the high risk patients.

As further long term follow up data mature, we anticipate broader acceptance of HIFU and routine application in the near future.

## Session 10: Topics of the managements of mHSPC



### Moderator

**Mototsugu Oya**

*Department of Urology, Keio University School of Medicine*

#### **EDUCATIONAL HISTORY**

1994 Sep/ Doctor of Medical Science. Keio University, School of Medicine, Tokyo, Japan

1987 Mar/ M.D. Keio University, School of Medicine, Tokyo, Japan

#### **PROFESSIONAL BACKGROUND (EMPLOYMENT HISTORY)**

Oct/2013 -present Vice Director, Keio University Hospital  
Aug/2007- Professor and Chairman, Department of Urology, Keio University School of Medicine  
Apr/2001-Jul/2007 Assistant Professor, Department of Urology, Keio University School of Medicine  
(Aug/2004-Jul/2006 Program Officer, Ministry of Education, Culture, Sports, Science and Technology)  
Oct/1998-Mar/2001 Medical Staff, Department of Urology, Keio University Hospital  
Jan/1997-Sep/1998 Postdoctoral fellow, Department of Urology, Duesseldorf University, Germany  
Apr/1996-Oct/1996 Medical Staff, Division of Urology, Ogikubo Hospital, Tokyo  
Jan/1995-Mar/1996 Postdoctoral fellow, Department of Urology, New York Medical College, USA  
Jun/1993-Nov/1994 Medical Staff, Division of Urology, Saiseikai Chuou Hospital, Tokyo  
Jun/1987-May/1993 Resident at Department of Urology, Keio University Hospital  
Jun/1987 passed the Examination of National Board

#### **MEMBERSHIP (selected)**

Japanese Urological Association (councilor), Past President (2019-2021), Congress Chairman of the 109th Annual Meeting (2021)

Japanese Cancer Association (councilor)

Japan Society of Clinical Oncology (director)

Japanese Society of Endourology and Robotics (councilor)

Japanese Society of Nephrology (councilor), Past director (2014-2020)

Japanese Society for Dialysis Therapy (councilor)

American Urological Association

European Association of Urology

Urological Association of Asia (director of research)

Société Internationale d'Urologie (SIU): Board of Directors (Publication chief): 2017-2021



### Current status and future perspectives of the managements of metastatic prostate cancer

**Kazutoshi Fujita**

*Department of Urology, Kindai University Faculty of Medicine*

**Education:** 2006 Ph.D. (Doctor of Medical Science) Osaka University  
1999 M.D., Osaka University School of Medicine  
1995 Phar.B., Kyoto University School of Pharmacology

**Employments:**

2020-present Associate professor in Urology, Kindai University Faculty of Medicine  
2016-2020 Associate professor in Urology, Osaka University Graduate School of Medicine  
2012-2015 Assistant professor in Urology, Osaka University Graduate School of Medicine  
2009-2012 Medical staff in Urology, Osaka General Medical Center  
2006-2008 Postdoctoral fellowship, The Brady Urological Institute, Johns Hopkins Medical Institutions.

**Society:** The Japanese Urological Association, Japanese Cancer Association, Japanese Society of Clinical Oncology, Japanese Society of Medical Oncology, Japanese Society of Endourology and Robotics, The Japan Society of Andrology, The Japanese Society for Sexual Medicine, Japanese Society of Fertility and Sterility, Japanese Society of Clinical Renal Transplantation

### Abstract

The mortality rates of prostate cancer are rising in Japan as well as in the United States. The management of metastatic hormone-sensitive prostate cancer (mHSPC) is becoming increasingly important. Prostate cancer cell growth is regulated by androgen through activation of androgen receptor signaling pathway. Patients with metastatic prostate cancer are basically treated with androgen deprivation therapy (ADT) as systemic therapy. Recently, the therapeutic landscape for mHSPC has changed dramatically. Upfront androgen receptor signaling inhibitor (ARSi), such as enzalutamide, or docetaxel in addition to ADT has improved survival in mHSPC patients and has become the new standard of care. The inclusion of risk factors or the genetic biomarkers will provide the optimal treatment for individual mHSPC patients. Furthermore, the mutation or amplification of androgen receptor is critical for the development of the castration-resistant prostate cancer (CRPC). Recent studies showed that gut microbiome was the source of androgens for the prostate cancer growth. The gut-prostate axis could be the new target of the treatment of prostate cancer. The understanding of the mechanisms of CRPC would lead to the development of the new strategy for mHSPC.



### Moderator

**Tohru Nakagawa**

*Department of Urology, Teikyo University School of Medicine, Tokyo, Japan.*

- 1994/3 M.D., The University of Tokyo Faculty of Medicine
- 1997/6 Resident, Urology Division, National Cancer Center Hospital
- 2000/4 Chief Resident, Urology Division, National Cancer Center Hospital
- 2002/4 Research Resident, Pathology Division, National Cancer Center Research Institute
- 2004/4 Research Fellow, Department of Urology, Mayo Clinic, U.S.A.
- 2006/3 Ph.D., The University of Tokyo Graduate school of Medicine
- 2006/12 Staff physician, Urology Division, National Cancer Center Hospital
- 2010/6 Chief physician, Urology Division, National Cancer Center Hospital
- 2012/7 Lecturer/Assistant Professor, Department of Urology, The University of Tokyo Graduate School of Medicine
- 2017/4 Professor, Department of Urology, Teikyo University School of Medicine
- 2018/4 Professor and Chairman, Department of Urology, Teikyo University School of Medicine



### Practice of clinical approaches to first-line treatment for metastatic renal cell carcinoma. ~ A new era of immune checkpoint inhibitors (ICI) -based combination therapy ~

**Jun Morita, M.D., Takashi Fukagai, M.D.**

*Department of Urology, Showa University, School of Medicine, Tokyo, Japan.*

Jun Morita M.D., Ph.D.

Associate Professor Department of Urology, Showa University School of Medicine

#### **【Education/Career】**

- 2001/3 M.D. Faculty of Medicine, Showa University
- 2003/4 Staff physician, Urology Division, Tokyo Metropolitan Hiroo Hospital
- 2008/4 Assistant Professor, Department of Urology, Showa University School of Medicine
- 2010/4 Staff physician, Urology Division, Showa University Fujigaoka Hospital
- 2010/9 Staff physician, Urology Division, National Hospital Organization Disaster Medical Center
- 2014/4 Deputy Chief, Urology Division, Yamanashi Red Cross Hospital
- 2015/4 Lecturer, Department of Urology, Showa University School of Medicine
- 2020/4 Associate Professor, Department of Urology, Showa University School of Medicine

#### **【Affiliated society】**

- Advising Doctor, The Japanese Urological Association
- Approved Doctor, Japanese of Board of Cancer Therapy
- Representative and Approved Doctor, Urology Robot-assisted Surgery Proctor Certification System, Japanese Society of End urology and Robotics
- Technical Approved Doctor, (Urology) The Japan Society for Endoscopic Surgery
- Laparoscope Small Incision Surgery Facility Standards Physician, Japanese Society of Minimum Incision Endoscopic Urological Surgery
- Representative and Specialist, The Japanese Society for Sexual Medicine

#### **Abstract**

The treatment of patients with metastatic renal cell carcinoma (mRCC) is evolving rapidly, new frontline combination therapy of immune checkpoint inhibitors (ICI) and tyrosine kinase inhibitors (TKIs) promote response rate and increase prognosis for mRCC. The four ICI-based TKIs combination regimens (Pembrolizumab/Axitinib, Avelumab/Axitinib, Nivolumab/Cabozantinib, Pembrolizumab/Lenvatinib) are currently available as first-line treatment for mRCC for all IMDC risk groups, and ICI-ICI combination (Ipilimumab/Nivolumab) are available for IMDC intermediate or poor risk patients, in Japan.

The ipilimumab/nivolumab combination is notable for durable response after extended 5-year follow-up. Furthermore, ICI/TKIs combinations have clinical efficacy across all IMDC risk groups with higher response rates and longer progression-free survival (PFS). However, there is no definitive regimen, there are not a few cases to be possible for metastatic lesions to progress in a few months. Choosing among the available drug combination depends on treating physician's interpretation of several existing data of each clinical trial. While always keeping in mind the latest drug characteristics, toxicity profiles, and each trial results, we need to ultimately determine the regimen that can be surely administered effectively, in front of each patient, with considering each patients characteristics, risk factors.

In this session of novel approaches for first-line treatment of mRCC, we present an overview of current treatment strategies, the basis behind emerging treatment approaches, a summary of key results from the pivotal studies using ICI/TKIs and ICI/ICI combination therapy, and discuss treatment strategies of practical clinical cases.



## Session 12: Medication for BPH & LUTS



### Moderator

#### **Hiroyuki Nishiyama**

*Dept. of Urology, Faculty of Medicine, University of Tsukuba*

After graduating from Kyoto University School of Medicine in 1989, I trained in the Department of Urology and studied at the Imperial Cancer Research Fund in the U.K. from 1998 to 2000 as a research fellow to study the carcinogenesis mechanism of bladder cancer. In 2011, I became a professor at the Department of Urology, University of Tsukuba, Tsukuba, Japan. Currently, I am in charge of basic research and clinical practice related to urothelial carcinoma and other urologic cancers. In particular, he is leading a novel bladder-sparing therapy using immune checkpoint inhibitors in combination with radiotherapy and an investigator-oriented clinical trial for testicular tumors. I also serve on the advisory-board for global clinical trials and as chairman of the Japan-clinical Oncology group in the field of urologic oncology.



### Treatment strategy for OAB with BPH

**Naoya Masumori, M.D.**

*Dept. of Urology, Sapporo Medical University*

Subspecialty: Urologic oncology, Benign prostatic hyperplasia, Laparoscopic surgery, Robotic surgery, Gender identity disorder

#### Brief sketch

##### MEDICAL SCHOOL:

1988 Sapporo Medical University School of Medicine, Japan

##### POST GRADUATE:

1988-1993 Resident and Clinical Fellow in Urology, Sapporo Medical University School of Medicine

##### ACADEMIC CAREER:

1994 Received D.MSc from Sapporo Medical University

1994-1998 Instructor, Department of Urology, Sapporo Medical University School of Medicine

1998-2001 Research Fellow, Department of Urologic Surgery, Vanderbilt University, Nashville TN, USA

2001 Assistant Professor, Department of Urology, Sapporo Medical University School of Medicine

2002 Exchange visitor, Department of Urology, Helsinki University, Helsinki, Finland

2006 Associate Professor, Department of Urology, Sapporo Medical University School of Medicine

2013-present Professor and Chair, Department of Urology, Sapporo Medical University School of Medicine

2018-present Deputy-Chief of the Sapporo Medical University Hospital

#### Abstract

Benign prostatic hyperplasia (BPH) is the most common cause of lower urinary tract symptoms (LUTS) in middle-aged men. In addition to bladder outlet obstruction due to adenoma, bladder dysfunction secondary or concomitant to BPH modulates LUTS caused by BPH in various ways. In particular, detrusor overactivity secondary to bladder outlet obstruction cause overactive bladder (OAB) and impair quality of life.

Pharmacologic treatment of OAB associated with BPH includes alpha 1-blockers alone, PDE5 inhibitors alone, 5-alpha reductase inhibitors alone, anticholinergics alone, and beta 3-agonists alone. On the other hand, the higher grade recommended is the combination of alpha 1-blockers and anticholinergics or beta 3-agonists. In this presentation, medical treatment of OAB associated with BPH will be presented based on the Overactive Bladder Clinical Guidelines, 3rd Edition.

## Session 13: New Surgical Techniques & New treatment Strategies for BPH



### Moderator

#### **Bannakij Lojanapiwat**

*President of Thai Urologic Association and Dean of Faculty of Medicine*

**Present Position:** Special Expert Professor of Urology, Chiang Mai University, Thailand  
: Dean of Faculty of Medicine, Chiang Mai University, Thailand

**Academic or Medical Associations Position:**

: President of Thai Urologic Association  
: Chairman :Scientific Committee of the Urological Association of Asia

**Educational background & professional experience**

1988: Medicine from Chiang Mai University  
1992: Fellowship in Organ transplantation, Albert Einstein Medical Center, Philadelphia, USA  
2001: Fellowship in Endourology, University of Miami, USA

**Research Interests**

Prostate Cancer, Stone Disease, Endourology

In addition to being widely published, Professor Lojanapiwat sits on many editorial boards, including the Prostate International, the International Journal of Urology, the Official Journal of the Brazilian Society of Urology, and the Journal of Medical Association of Thailand. He is also reviewer for the Journal of Endourology, Urology, and the International Journal of Urology, Singapore Medical Journal, Indian Journal of Urology, Urol Journal and other.



### Moderator

#### **Satoru Takahashi**

*Director, Nihon University Itabashi Hospital*

**Education:**

1979-1985 Gunma University School of Medicine  
1993 Awarded the degree of PhD, The University of Tokyo

**Research and Professional experience:**

1985-1987 Residency of Surgery (Neurosurgery), Gunma University  
1987-1992 Residency of Urology, The University of Tokyo  
1993-1995 Postdoctoral research fellow, Department of Urology, Mayo Clinic, USA  
1996-2002 Assistant Professor, Department of Urology, The University of Tokyo  
2003-2005 Associate Professor, Department of Urology, The University of Tokyo  
2006-present Professor and Chairman, Department of Urology, Nihon University School of Medicine  
2014-2021 Vice Director, Nihon University Itabashi Hospital  
2021-present Director, Nihon University Itabashi Hospital

**Membership of academic societies:**

American Urological Association (AUA), European Urological Association (EAU), International Continence Society (ICS), International Urogynecological Association (IUGA)  
Japanese Urological Association (JUA): Board of Director (2017-2021, Chief of Health insurance section) (2015-2017, 2021-present, Chief of BPH & Geriatric Urology section) (2010-2014, Chief of Female Urology section)

## Session 13: New Surgical Techniques & New treatment Strategies for BPH

Japanese Continence Society: Board of Director (President)

Japanese Geriatric Urological Association: Board of Director (President)

Japanese Society of Female Pelvic Floor Medicine: Board of Director (Vice President)

Japanese Association for Cancer Detection and Diagnosis: Board of Director

Japanese Clinical Oncology Association: Delegate

### Research Fields:

1. Voiding dysfunction (BPH, overactive bladder, female LUTS)
2. Urogynecology (pelvic floor reconstruction)
3. Urologic Oncology (molecular cancer biology and laparoscopic/Robotic surgery)

### Publications:

Original articles: 241, Review: 193, Case-report: 78, Book: 106



### Water Vapor Therapy for Benign Prostatic Hyperplasia—the Hong Kong Experience

**Professor Anthony C.F. Ng**

*SH Ho Urology Centre, Department of Surgery, The Chinese University of Hong Kong, Hong Kong, China*

Dr NG Chi Fai, Anthony, *Tze Leung Ho Professor of Urology*, graduated in the Chinese University of Hong Kong in 1993. He then joined Department of Surgery, Prince of Wales Hospital, as surgical trainee. After his basic training, he decided to become a urologist and became a specialist in 2001. Attracted by the rapid development in minimally invasive surgery, he spent one year in Scotland, worked under Mr. David Tolley, and gained extensive experience in endo-laparoscopic surgery and stone management.

After completion of his training, Dr Ng decided to join the Chinese University of Hong Kong in 2006 and is currently *Tsu Leung Ho Professor of Urology & Chief* of the Division of Urology, Department of Surgery, the Chinese University of Hong Kong. He is also the *Director of the CUHK Hong Kong Jockey Club Minimally Invasive Surgical Skill Centre*. He has a wide range of clinical and research interests, in particular in prostate diseases, minimally invasive surgery, robotic surgery and urolithiasis. He was honoured with *Outstanding Young Urologist Award* in 2010 by the Asian Congress of Urology, *International Guest Scholar 2012* of the American College of Surgeons, *Achievement Award from the World Chinese Urology Association* of the American Urological Association in 2014 and *Outstanding Contribution Award* by the International Alliance of Urolithiasis in 2017. He and his clinical team was awarded *Merit Award* in the Hospital Authority Outstanding Team Award in 2019 to recognize their excellence in clinical service. Moreover, he was the first surgeon to perform *da Vinci SP urological surgery* in Asia.

Besides clinical and research work, Professor Ng has strong commitment in education and teaching. He has been awarded *Best Teacher Awards* of the Faculty of Medicine, the Chinese University of Hong Kong, for his contribution in undergraduate teaching. He serves as Council member of the College of Surgeons of Hong Kong since 2014 and Honorary Secretary of the Urology Board of the College of Surgeons of Hong Kong. He is actively involved in planning of the urological training in Hong Kong. He was the *Course Director of the Robotic Surgery Training Programme*, CUHK Hong Kong Jockey Club Minimally Invasive Surgical Skill Centre and contributed to the rapid development of robotic surgery in Hong Kong and Asia. He is also the founding *Chairman of Asian Urological Surgery Training and Education Group (AUSTEG)* and leads a team of Asian urologists in providing training for young urologists for whole Asia.

Lastly, he is also the *co-Director of the Youth Urological Treatment Centre* in Prince of Wales Hospital since 2010. The centre is the first multidisciplinary centre in the territories to help young substance abusers with urological problems, in both physical and psychosocial domains. He also serves as *member of the Action Committee Against Narcotics* since 2019 to provide advice and support to the fight against drug abuse in Hong Kong.

#### Abstract

With increasing aging population and also demand of better quality of life, there is a rising demand for better treatment for benign prostatic hyperplasia (BPH). Traditional medical therapy might provide mild to moderate symptom improve, but standard transurethral resection of prostate has certain limitation and morbidities. Therefore, there is need for treatment that are both effective and also minimally invasive to patients.

Water vapor therapy (REZUM<sup>®</sup>) is an emerging therapy for BPH with proven durable efficacy. In Hong Kong, the technology was introduced in 2020. In the beginning, it was first applied to patients with lower urinary tract symptom secondary to BPH. In our initial cohort, 50 patients was treated and There were significant differences of pre-operative and 3-month post-operative parameters, including post-void residual urine ( $p = 0.038$ ), maximal uroflow rate ( $p < 0.001$ ), symptom score ( $p < 0.001$ ) and quality of life assessment ( $P < 0.001$ ).

Later, due to COVID and so we tried to apply the technology under local anaesthesia and also in patients with retention of urine. Between June 2020 and July 2022, a total of 55 Asian patients with AROU secondary to BPH were treated with REZUM with an office setting under pure LA without sedation. All patients were able to be discharged on the same day with Foley catheter after the operation. All patients were able to have successful trial without catheter

## Session 13: New Surgical Techniques & New treatment Strategies for BPH

(TWOC); 47 patients (85.5%) had successful TWOC within 30 days. The median TWOC time were 14 days (IQR: 10-30). Eight patients (14.5%) had unplanned hospital admission within 30 days post-operatively due to grade I Clavien-Dindo complications, including five cases (9.0%) of haematuria and three cases (5.5%) of recurrent AROU. The three cases of recurrent AROU all weaned off Foley within the next two weeks.

Therefore, from our limited experience, water vapour therapy is a safe and effective procedure that could be done under local anesthesia in day care setting. This could help to decrease hospital stay and anesthesia demand in clinical management.



### Prostatic Urethral Lift (Urolift) for the treatment of LUTS in 2022

**Henry Woo**

*Sydney Adventist Hospital Clinical School of the University of Sydney*

Professor Henry Woo MBBS DMedSc FRACS(Urol) FACS

Henry Woo is a urological surgeon with a subspecialty practice in BPH and prostate cancer. He is Professor Urology at the Australian National University since 2021 and previously was Professor of Surgery at the University of Sydney. He is the Director of Uro-Oncology at the Chris O'Brien Lifehouse Comprehensive Cancer Centre and is the Director of the SAN Prostate Centre of Excellence at the Sydney Adventist Hospital.

He has published widely and has approximately 200 peer reviewed publications and several book chapters. He is currently an Associate Editor with the SIU Journal and a Consulting Editor of Journal of Urology Open Plus. He also serves on the journal editorial boards of Prostate Cancer and Prostatic Diseases, Asian Journal of Urology, World Journal of Urology, World Journal of Men's Health and Prostate International. He has recently completed terms of service on the editorial boards of European Urology, BJUI and PLOS One. He has reviewed for numerous journals including high impact journals such as the New England Journal of Medicine, The Lancet, European Urology, Medical Journal of Australia and the Journal of Urology.

His research interests particularly include minimally invasive surgical treatment options for male LUTS, robotic assisted simple prostatectomy, prostate cancer imaging and diagnostics and systemic treatments for prostate cancer. He is actively involved in clinical trials and has been a site PI for numerous international multicentre clinical trials.

He is a Fellowship Elected Councillor of the Royal Australasian College of Surgeons where he holds the role of Chair of the Research and Academic Surgery portfolio of the college and is also the Chair of the RACS Robotic Assisted Surgery Working Party. He is also the Chair of the Australian and New Zealand Association of Urological Surgeons (ANZAUS) and serves on the Board of Directors of the Urological Society of Australian and New Zealand (USANZ). He also serves on the Board of Directors of the Australian and New Zealand Urological and Prostate Cancer Trials Group (ANZUP) and the charitable Australasian Urological Foundation (AUF). He is currently the USANZ Delegate to the Societe Internationale Urologie (SIU).

#### **Abstract**

The prostatic urethral lift (PUL) has become an established minimally invasive surgical treatment option for male lower urinary tract symptoms (LUTS). The clinical trials methodology for PUL has established a research pathway followed by subsequently developed MISTs. The use of randomised controlled trials including a sham procedure with cross over treatment as well as the use of patient centred PROM and PREM instruments have now become common place for devices used to treat male LUTS. High level evidence of efficacy and safety of PUL has been established in randomised controlled trials and supported by real world registry outcomes. Consistent features of clinical outcomes following PUL are early improvement in symptoms, a low morbidity profile and in particular, the preservation of both erectile and ejaculatory function. Initially, the treatment of glands with a prominent middle lobes were not recommended as suitable for PUL but with the development of a technique to place an implant across the middle lobe has been reported with outcomes similar to subjects without a middle lobe component to obstruction. PUL is currently a recognised part of the armamentarium for the surgical treatment of male LUTS in all major clinical practice guidelines for male LUTS.



### Effects of Transoral Robotic Surgery (TORS)- Obstructive Sleep Apnea (OSA) Surgery on Lower Urinary Tract Symptoms in Male Patients with OSA/ Hypopnea Syndrome

**Yao-Chi Chuang**

*Professor of Urology, Kaohsiung Chang Gung Memorial Hospital*

Yao-Chi Chuang is a Professor in the Division of Urology at the Kaohsiung Chang Gung Memorial Hospital, Taiwan.

After graduating from the National Yang-Ming University School of Medicine in 1988, Dr Chuang completed his residency in urology at Veterans General Hospital, Taipei. He was awarded a research Fellowship in the Department of Pharmacology and Urology at the University of Pittsburgh in 1999-2000, where he worked with Professor deGroat, Chancellor, and Yoshimura on the study of physiology and pharmacology of lower urinary tract.

Dr Chuang is a member of both the Surgical and Urology Associations of Taiwan. He is immediate past president of Taiwanese Continence Society.

He has a particular interest in neuro-urology, female urology, and minimal invasive treatment for prostate disease. Dr Chuang is continuous working on the research of IC/PBS, OAB, UAB, DM related lower urinary tract dysfunction (LUTD), and use of low energy shock wave, botulinum toxin, and liposome for the treatment of LUTD.

Dr Chuang has published over 150 peer-reviewed articles, and he also serves as reviewers for many scientific journals. He has been invited to give lectures more than 100 times in the national and international meeting.

Dr Chuang has won awards from Lapidus Essay Contest for 6 times, and Taiwan Urological Association for 9 times. Dr Chuang has received research grant from Ministry of Science and Technology, Taiwan since 2001, and NIH from 2003 to 2005.

Dr Chuang is an editorial member of International Urology and Nephrology, Asia Journal of Urology, and LUTS. Dr Chuang is the chief editor of Urological Science, official journal of Taiwan Urological Association.

#### **Abstract**

Obstructive sleep apnea/hypopnea syndrome (OSA) is a common disease. It affects approximately 4% to 5% of all middle-aged men. Previous studies have shown a relationship between OSA and nocturia and polyuria, which are related to lower urinary tract symptoms (LUTS).

The tongue base/hypopharyngeal obstruction is one of the major causes of OSA, of which obstructive condition(s) are usually challenging for the majority of sleep surgeons and could be more suitably relieved by transoral robotic surgery (TORS). In the present study, we firstly evaluated the effect of TORS-assisted OSA surgery on LUTS and OAB symptoms in 123 male OSA patients by one single surgeon (Lin HS), as well as further analyzed the relations between severity of OSA and the improvement of LUTS and OAB after TORS-assisted OSA surgery.

We found that there were significant differences in IPSS, and OABSS according to OSA severity. After TORS-OSA surgery, significant improvements on OSA severity, daytime quality of life (QoL) and nighttime sleep quality were observed. TORS-OSA surgery was also associated with a statistically significant improvement of LUTS, LUTS QoL score, and OAB symptoms at post-operative 3 months' follow-up.

TORS upper airway surgery could improve LUTS and OAB symptoms on male patients with OSA in addition to improvement of major parameters of sleep study and sleep-related QoL.

Reference:

Effects of TORS-OSA Surgery on Lower Urinary Tract Symptoms, Overactive Bladder Symptoms, and Nocturia in Male Patients with Obstructive Sleep Apnea/Hypopnea Syndrome. *Nat Sci Sleep*. 2022;14:547-556 (Chuang YC & Lin HC\* et al).





## Moderator

**Hideki Sakai**

*Hospital Director, Nagasaki Rosai Hospital*

### EDUCATION

- 1983 M.D., Nagasaki University, School of Medicine  
1992 Ph.D. (Doctor of Medical Science), Nagasaki University

### PROFESSIONAL TRAINING AND EMPLOYMENT

- 1983 Passed the Examination of National Board  
1983-1984 Resident, Nagasaki University Hospital  
1984-1985 Resident, Sasebo General Hospital and Nagasaki Red Cross Hospital  
1985-1986 Medical Staff in Urology, Ureshino National Hospital  
1986-1987 Medical Staff in Urology, Isahaya General Hospital  
1987-1991 Medical Staff in Urology, Nagasaki University Hospital  
1991-2000 Instructor, Department of Urology, Nagasaki University School of Medicine  
2000-2007 Assistant Professor, Department of Urology, Nagasaki University School of Medicine  
2007-2009 Associate Professor, Department of Urology, Nagasaki University Graduate School of Biomedical Sciences  
2009-2022 Professor and Chairman, Department of Urology, Nagasaki University Graduate School of Biomedical Sciences  
2022-Present Director, Nagasaki Rosai Hospital

### MEMBERSHIP

- Japanese Urological Association  
Japan Society of Clinical Oncology  
Japan Association of Endocrine Surgeons  
Japan Society of Transplantation  
American Urological Association  
Asian Pacific Prostate Society



## Non-metastatic CRPC or “Early” CRPC? Challenges in CRPC treatment in the era of next-generation imaging.

**Shusuke Akamatsu**

*Associate Professor, Department of Urology Kyoto University Graduate School of Medicine*

2001/3 M.D. Faculty of Medicine, Kyoto University  
2009/5 Research fellow, Center for Genomic Medicine, RIKEN  
2012/7 Postdoctoral fellow, Vancouver Prostate Centre, BC, Canada  
2013/3 Ph.D. Graduate School of Medicine, Kyoto University  
2014/7 Uro-oncology clinical fellow, Department of Urology, British Columbia, Canada  
2015/7 Assistant Professor, Kyoto University Graduate School of Medicine  
2016/7 Visiting researcher, Center for Integrative Medical Sciences (until present)  
2019/12 Senior Lecturer, Kyoto University Graduate School of Medicine  
2022/1 Associate Professor, Kyoto University Graduate School of Medicine

### **Abstract**

Treatment of castration resistant prostate cancer (CRPC) has improved significantly by the emergence of potent androgen receptor pathway inhibitors (ARPIs). However, study designs of clinical trials that led to approval of these ARPIs have “created” a clinical disease status called “non-metastatic CRPC”, whereby the site of tumor is not detectable by conventional imaging including CT and bone scans. For CRPC, among the currently available ARPIs, darolutamide and apalutamide are only indicated in “non-metastatic” cases. More recently, novel imaging techniques such as PSMA-PET and whole-body MRI have revealed that in many of these “non-metastatic” CRPC cases, tumors are indeed detectable using these techniques. Hence, “early” CRPC may be a more suitable term than “non-metastatic” CRPC. When there are only a small number of metastasis sites (oligo-metastasis or oligo-progression), local control of these tumors by stereotactic radiotherapy may be a reasonable option, although there are currently no robust data supporting this treatment strategy. With the emerging role of next-generation imaging, treatment of this disease status has become very complex, and data from more clinical trials are necessary to guide treatment.



## Changes in treatment landscape for non-metastatic CRPC: what has novel hormonal therapy brought about?

**Kohei Hashimoto**

*Department of Urology, Sapporo Medical University School of Medicine*

2000	Resident in Urology, Sapporo Medical University Hospital, Sapporo
2002	Clinical fellow in Urology, Sapporo Medical University Hospital, Sapporo
2008-2012	Ph.D. in Molecular Biology, Sapporo Medical University Postgraduate School of Medicine (Sapporo)
2013	Postdoctoral Research fellow, Department of Anatomy and Developmental Biology, Monash University, Melbourne, Australia
2016	Instructor in Urology, Sapporo Medical University School of Medicine
2020	Assistant professor in Urology, Sapporo Medical University School of Medicine

### Abstract

Non-metastatic castration-resistant prostate cancer (nmCRPC) is defined by prostate specific antigen (PSA) progression in the absence of metastases on conventional imaging including computed tomography (CT) and bone scan despite a castrate level of serum testosterone by androgen deprivation therapy (ADT). Recently, the randomized-controlled studies support the efficacy of androgen receptor pathway inhibitors (ARPIs) plus ADT in nmCRPC patients. The ARAMIS study showed a median MFS (the primary endpoint) of 40.4 months with darolutamide versus 18.4 months with placebo (hazard ratio for metastasis or death in the darolutamide group, 0.41; 95% confidence interval, 0.34 to 0.50;  $P < 0.001$ ), which represented a 59% reduction in metastases or death.

However, some questions to be answered have yet remained. First of all, what about less biological heterogeneity in nmCRPC? Another question is: when to diagnose nmCRPC and start ARPIs? Then, is there any significance of MFS in the real-world practice? Another one is: what could be the best treatment sequence for metastatic disease after ARPIs? In this part, we review the literature and consider the rationale of the possible therapeutic choices in nmCRPC patients.

## Session 15: Topics of Bone Scan



### Moderator

**Takahiro Kimura**

*Department of Urology, The Jikei University School of Medicine*

Apr/2022	Professor, Department of Urology, The Jikei University School of Medicine
Jan/2018	Associate Professor, Department of Urology, The Jikei University School of Medicine
Aug/2011	Assistant Professor, Department of Urology, The Jikei University School of Medicine
Oct/2006	Clinical Associate, Department of Urology, The Jikei University School of Medicine
Aug/2003	Postdoctoral Researcher, Department of Medicine, Division of Digestive Disease, UCLA
Apr/2001	Clinical Associate, Department of Urology, The Jikei University School of Medicine
Jan/2000	Research fellow, Department of Gene Therapy, Institute of DNA Medicine, The Jikei University School of Medicine
May/1998	Senior Resident in Department of Urology, The Jikei University School of Medicine
May/1996	Junior Resident in Department of Urology, The Jikei University School of Medicine
May/1996	Graduated from The Jikei University School of Medicine



### Importance of Imaging Follow-up for Advanced Prostate Cancer

**Kazuki Sudo**

*Department of Medical Oncology, National Cancer Center Hospital*

#### [Education]

2006 Niigata University, M.D., Medicine

2019 Advanced Clinical Research of Cancer, Juntendo University Graduate School of Medicine, Ph.D., Medicine

#### [Biography]

2006-12 Resident and Chief resident, GI surgery, St. Luke's International Hospital

2012-14 Postdoctoral fellow, Dept. of GI Medical Oncology, MD Anderson Cancer Center

2014-17 Resident for medical oncology program, National Cancer Center Hospital (NCCH)

2017- Staff physician, Dept. of Medical Oncology at NCCH and Rare Cancer Center

2019- Concurrent appointment in the Dept. of Experimental Therapeutics, NCCH

Nov. 2020- Concurrent appointment as Director of TR Promotion Section, Dept. of International Clinical Development, NCCH

#### [Specialists, etc.]

- Board Certifications: Board of surgery, 2011
- Board Certified Member of the Japanese Society of Internal Medicine, 2016
- Board of Medical Oncology, JSMO, 2017

#### Abstract

Recent advances in the treatment of metastatic prostate cancer have been quite remarkable, and we are facing new challenges in making decisions about the timing and selection of therapies. Strategies for follow-up of advanced prostate cancer are more important today because they lead to treatment changes.

PSA is important test for prostate cancer follow-up, but disease progression without an elevated PSA is sometimes observed. The lack of PSA progression may indicate that these tumors have become less reliant on the AR for their growth. Treatment-emergent neuroendocrine prostate cancer is also related to low PSA level. Recent studies suggest that HRR mutated metastatic prostate cancers may present with Low PSA. Uncoupling of PSA levels from the disease progression was known in castrate-resistant prostate cancer, and has being recognised in the hormone-sensitive state as well.

Recent studies have shown that mHSPC, MOCRPC, and mCRPC cases show clinical progression inconsistent with PSA (about 10%, about 25%, and about 25%, respectively). It is important to know how to develop an image-based follow-up strategy in addition to PSA. For advanced prostate cancer, CT scans and bone scintigraphy are important imaging studies. In addition to these conventional imaging techniques, new generation imaging, like PSMA PET, have emerged in recent years. The use of PSMA PET, has been shown to be superior compared with conventional imaging, but The usefulness of PSMA PET for periodic follow-up of advanced prostate cancer is unknown. In this presentation, appropriate imaging follow-up strategies will be discussed and proposed based on the literature, the Reports of the Advanced Prostate Cancer Consensus Conferences, and various guidelines.

## Session 16: Treatment strategy for mCSPC



### Moderator

#### **Hirotsugu Uemura**

*Department of Urology, Kindai University Faculty of Medicine*

Name: Hirotsugu Uemura, MD. PhD.  
Institute: Department of Urology, Kindai University Faculty of Medicine, Osaka  
Degree: Professor and Chairman

1983.4 MD. Nara Medical University  
1983.4-1985.12 Resident, Nara Medical University Hospital and Saiseikai Hospital  
1986.1-1991.6 Staff in Urology, Kaisei Hospital and Nara Medical Univ. Hospital  
1991.7-1993.12 Research fellow in Urology, Nijmegen University, The Netherlands  
1994.11 PhD University Hospital Nijmegen, The Netherlands  
1994.1-1997.2 Staff in Urology, Nara Medical University  
1997.3-2003.6 Assistant Professor in Urology, Nara Medical University  
2003.7-2004.3 Associate Professor in Urology, Nara Medical University  
2004.4-present Professor and Chair in Urology, Kindai Univ. Faculty of Medicine  
2010.10-2016.9 Vice president of Kindai University Hospital  
2013.4-2017.3 Executive member of Japanese Urological Association(JUA) (Chair of Scientific Committee)  
2015.4-2019.3 JUA Chair of Urologic Oncology Section  
2016.11-present Executive member of Japanese Society of Endourology

Topics: Urologic Surgery, Urologic Oncology, Endourology,

#### License and Certification:

1983 MD, Japanese license No.277783  
1989 Urologist, JUA license No.890240  
1994 PhD, University Nijmegen, The Netherlands



### Treatment strategy for mCSPC

#### **Dr. Declan G. Murphy**

*Consultant Urologist Director of Genitourinary Oncology, professor at the Peter MacCallum Cancer Centre, Melbourne, Australia*

#### **Employment History:**

**April 2010 - present:** Consultant Urologist, Director of Genitourinary Oncology & Director of Robotic Surgery Peter MacCallum Cancer Centre, Melbourne, VIC 3000

#### **Leadership and other positions held:**

- Director of Genitourinary Oncology, Peter MacCallum Cancer Centre: 2014-present
- Associate Board Member, EAU Robotic Urology Section (ERUS): 2014-present

#### **Scientific journal activity:**

- Associate Editor, British Journal of Urology International: 2013 - 2020
- Consulting Editor/Editorial Board, European Urology: 2012-present
- Expert Advisory Board, Nature Reviews Urology: 2012 - present

#### **Faculty Member (Convenor/Scientific Director roles highlighted in bold):**

- 16th Annual Meeting of the EAU Robotic Urology Section (ERUS), Lisbon, Sept 2019
- 3rd Advanced Prostate Cancer Consensus Conference, Basel, Aug 2019

#### **Funded research activity:**

Successful in attracting more than \$20m in competitive grant funding as Principal or Chief Investigator since 2010

#### **Awards:**

- Paper of the Year 2022 - Awarded by European Urology for the PRIMARY trial
- Clinical Trial of the Year - Australian Clinical Trial Alliance Annual Awards, Melbourne, May 2021

#### **Membership of Learned Societies:**

- Association of Academic European Urologists
- European Association of Urology
- Urological Society of Australia & New Zealand



## Moderator

**Naohiro Fujimoto, M.D, Ph.D.**

*Professor and Chairman, Department of Urology, University of Occupational and Environmental Health (UOEH),*

*President of UOEH Wakamatsu hospital*

*Vice-president of UOEH University hospital*

### **Educational background & professional experience**

2015-present Department of Urology, UOEH, Professor and Chairman

1997-1998: George Whipple laboratory for Cancer Research, University of Rochester, Research Associate

1996-1997: Comprehensive Cancer Center, University of Wisconsin,  
Research Associate

1984-1986; Resident in UOEH

### **Research Interests**

Urologic Oncology, Hormone Action in Cancer, Retroperitoneal tumor





## The role of olaparib in the treatment of mCRPC

**Hiroshi Kitamura**

*Department of Urology, Faculty of Medicine, University of Toyama, Japan*

### EMPLOYMENT

1994-1995

Resident

Sapporo Medical University Hospital, Sapporo, JAPAN

1996-1997

Clinical Fellow

Sapporo Medical University Hospital, Sapporo, JAPAN

1998-2001

Oncologic Surgery Fellow

National Cancer Center Hospital, Tokyo, JAPAN

2003-2005

PhD student

Sapporo Medical University Graduate School of Medicine, Sapporo, JAPAN

2006-2009

Postdoctoral Fellow

Le Centre d'Immunothérapie des Cancers

Institut Curie, Paris, FRANCE

2009-2015

Assistant Professor

Department of Urology

Sapporo Medical University School of Medicine, Sapporo, JAPAN

2015-

Professor and Chairman

Department of Urology

Graduate School of Medicine and Pharmaceutical Sciences for Research, University of Toyama, JAPAN

### Abstract

Poly-ADP-ribose polymerase (PARP) inhibitors have shown encouraging efficacy in metastatic castration-resistant prostate cancer (mCRPC) patients with DNA repair mutations. Somatic or germline mutations in genes regulating DNA damage repair have been noted in around 20% of patients with advanced prostate cancer. Results of phase 3 PROfound trial showed that olaparib reduced the risk of disease progression or death vs abiraterone acetate or enzalutamide (HR, 0.49; 95% CI, 0.38-0.63;  $P < .0001$ ). In USA, two PARP inhibitors, olaparib and rucaparib, have received FDA approval for treatment of mCRPC patients with deleterious or suspected deleterious germline or somatic homologous recombination repair (HRR) gene-mutated mCRPC who progressed following prior antiandrogen agents, while only olaparib has been approved for mCRPC patients with *BRCA1* or *BRCA2* mutation in Japan.

Here, I briefly summarize the current data supporting the efficacy of PARP inhibitors in mCRPC and introduce some on-going trials.

## Session 18: What is the best treatment sequence of metastatic Pca?



### Moderator

**Hiroyoshi Suzuki**

*Department of Urology, Toho University Sakura Medical Center*

#### **Education:**

M.D., Chiba University School of Medicine, 1990

Ph.D., Chiba University Graduate School of Medicine 1996

#### **Professional:**

1996-1998, Postdoctoral fellow, Johns Hopkins University Hospital Oncology Center (Prof. John T. Isaacs and Prof. William B. Isaacs) Baltimore, Maryland, USA

1998-2006, Assistant Professor of Urology, Chiba University Hospital

2006-2010, Associate Professor of Urology, Chiba University, Graduate School of Medicine

2010- present, Professor & Chief of Urology, Toho University Sakura Medical Center

2021- present, Deputy Director of Toho University Sakura Medical Center

#### **Research Focus:**

Urologic Oncology (especially Prostate cancer)/Minimum invasive surgery (Laparoscopic surgery/Endourology)/Andrology/Endocrinology/R&D of novel agents for urologic cancers (involved in >80 clinical trials).

#### **Awards:**

- 5<sup>th</sup> Inohana Alumni Association Academic Award, 2000
- Excellent Award of International Andrology Society meeting, 2001
- Excellent Award of Japan Urological Association (Clinical research), 2004

#### **Academic Activity (Affiliated Associations):**

- Consensus Panel member of Advanced Prostate Cancer Consensus Conference (APCCC) 2015/2017/2019/2021/2022
- Board of Directors (2017-2019) and Delegate of Japan Urological Association/President of Japanese Society of Urologic Pathology/Board of Directors of The Japan Society of Andrology/Delegate of The Japan Society of Japanese Society of Endourology/Delegate of Japan Society of Urologic Oncology/Delegate of The Japanese Continence Society etc.
- Editorial Board member of World Journal of Urology/International Journal of Urology/International Journal of Clinical Oncology/Japanese Journal of Clinical Oncology/Acta Urologica Japonica/Japanese Journal of Endourology&ESWL



### Moderator

**Edmund Chiong**

*Head & Senior Consultant, Department of Urology, National University Hospital*

Assoc. Prof. Edmund Chiong, is presently the Head and Senior Consultant of the Department of Urology, National University Hospital, Singapore. He is also an Associate Professor at the National University of Singapore (NUS) and the Urologic Oncology Tumour Programme Lead, National University Cancer Institute, Singapore. Assoc. Prof. Chiong graduated with the degrees of Bachelor of Medicine and Surgery from the National University of Singapore in 1995. He obtained postgraduate qualifications in Surgery (FRCS) and completed of his Urology specialist training in Singapore. Assoc. Prof. Chiong subsequently underwent a 2-year clinical fellowship program in Urologic Oncology at the University of Texas MD Anderson Cancer Center in Houston, Texas, USA. His sub-specialty interest is in Urologic Oncology and performing DaVinci robotic surgery. His research interests include investigating new therapies and diagnostic modalities for urologic malignancies. He was conferred a PhD (NUS) for his thesis on targeted therapy for bladder cancer. He also runs a number of clinical trials in bladder and prostate cancer. He has minor interests in investigating urinary tract infections, and medical device innovation. Assoc. Prof. Chiong is currently Chairman of the Chapter of Urologists (College of Surgeons), Academy of Medicine, Singapore, is Past President (2016-2018) and current Board of Trustees

## Session 18: What is the best treatment sequence of metastatic Pca?

member of the Singapore Urological Association, and Chairman of the Examinations Committee for Urology and Board member, Residency Advisory Committee/Joint Committee on Specialist Training (JCST), Ministry of Health, Singapore. He is also the Deputy Chairman, Scientific Committee, Urological Association of Asia (UAA), a member of the American Urological Association, European Association of Urology and the American Society of Clinical Oncology.

## Session 18: What is the best treatment sequence of metastatic Pca?



### Panelist

#### Jae il Chung

*Professor and Head of Dept. of urology, Inje University, Busan Paik Hospital*

#### **Education**

Feb. 17, 2001 Graduate Postgraduate School Kosin University, Busan, Korea (Doctor of Philosophy in Medicine)  
February 26, 1988 Graduate College of Medicine Inje University, Busan, Korea (Doctor of Medicine)

#### **Training**

1997 - 1998 Fellowship in the Department of Urology  
Inje University Busan Paik Hospital, Busan, Korea  
1992 - 1996 Residency in the Department of Urology  
Inje University Busan Paik Hospital, Busan, Korea  
1988 - 1989 Internship,  
Inje University Busan Paik Hospital, Busan, Korea

#### **Certifications and License**

1997 Korean Board of Urology  
1988 Korean License of Medical Doctor

#### **Academic Positions**

1997. 3 - 1998. 3 Instructor  
1999. 3 - 2003. 8 Assistant Professor  
2003 8 - 2010 Associate professor  
2010 3 - Now Professor and Director of Department of Urology  
Inje University Busan Paik Hospital, Busan, Korea  
2001. 8 - 2002. 8 postdoc:immunogenetherapy of prostate cancer  
Department of Urology, University of Iowa, IA U. S. A.

#### **Memberships**

Korean Medical Association  
Korean Urological Association  
Korean Urological Cancer Society  
Korean Prostate Society—vice president  
American Urologic Association

#### **Academic Activities**

2005 10 - 2009 03: The Korean Prostate Society Information Director  
2009 03 - 2011 03: The Korean Prostate Society Instruction Director  
2011 03 - 2013 03: The Korean Prostate Society Academic Director  
2013 03 - 2015 03: The Korean Prostate Society Vice president  
2015 03 - 2017 03: The Korean Prostate Society President  
2005 08 - present: The Korean Urological Oncology Society Board Member

#### **Hospital Positon**

2006 01 - 2007 12: QI (Quality Improvement) team leader  
2010 03 - 2014 02: IRB (Institution Review Board) Chairman  
2015 01 - 2018 12: Research Vice President of Busan Paik Hospital

#### **Articles**

About 50 papers include SCI journal

#### **Cinical Trials**

More than 20 cases of clinical trial

## Session 18: What is the best treatment sequence of metastatic Pca?



### Panelist

#### **Teng Aik Ong**

*Professor & Consultant Urologist, Deputy Dean, Faculty of Medicine, University of Malaya, Kuala Lumpur*

Prof Teng Aik Ong served as the President of the Malaysian Urological Association (MUA) from 2021-2022. He is currently the Deputy Dean (Value Creation & Enterprise) of the Faculty of Medicine, University of Malaya, Kuala Lumpur.

Prof Ong was the BJUI Scholar in 2005-2007 during his training period in urology. Since then, he has been active in promoting international collaboration in education and research. He served as a board member of the Urological Association of Asia (UAA) and Societe Internationale d'Urologie (SIU).

Uro-oncology is the focus of the clinical and research activities of Prof Ong. He was instrumental in establishing the first uro-onco clinic in Malaysia, in collaboration with the oncologists. He championed the M-CaP prostate cancer registry for Malaysia (working together with the A-CaP group). His group had recently published the survival data of patients with prostate cancer in Malaysia.



### Panelist

#### **Hiroshi Kitamura**

*Department of Urology, Faculty of Medicine, University of Toyama*

#### EMPLOYMENT

1994-1995

Resident

Sapporo Medical University Hospital, Sapporo, JAPAN

1996-1997

Clinical Fellow

Sapporo Medical University Hospital, Sapporo, JAPAN

1998-2001

Oncologic Surgery Fellow

National Cancer Center Hospital, Tokyo, JAPAN

2003-2005

PhD student

Sapporo Medical University Graduate School of Medicine, Sapporo, JAPAN

2006-2009

Postdoctoral Fellow

Le Centre d'Immunothérapie des Cancers

Institut Curie, Paris, FRANCE

2009-2015

Assistant Professor

Department of Urology

Sapporo Medical University School of Medicine, Sapporo, JAPAN

2015-

Professor and Chairman

Department of Urology

Graduate School of Medicine and Pharmaceutical Sciences for Research, University of Toyama, JAPAN

## Session 18: What is the best treatment sequence of metastatic Pca?



### Panelist

#### **Kuan Chou Chen**

*Department of Urology, Taipei Medical University Shuang-Ho Hospital*

- **Education**
  - 1983-1990 Bachelor of Medicine, Taipei Medical University
  - 1995-1998 Master, Graduate institute of Medical Sciences, Taipei Medical University
  - 2001-2007 Ph. D., Graduate Institute of Medical Sciences, Taipei Medical University
- **Work Experiences**
  - 1990-1994 Resident, Department of Urology, Taipei Medical University Hospital
  - 1994-1995 Clinical Researcher, Department of Urology, Taipei Medical University Hospital
  - 1996-1996 Clinical Researcher, Tokyo National Cancer Center, Japan
  - 1998-2007 Lecturer, Department of Urology, Taipei Medical University
  - 1995-2008 Visiting Staff, Department of Urology, Taipei Medical University Hospital
  - 2008-2020 Chief, Department of Urology, Taipei Medical University Shuang-Ho Hospital
  - 2007-2010 Assistant Professor, Department of Urology, Taipei Medical University
  - 2010-2014 Associate Professor, Department of Urology, Taipei Medical University
  - 2014-present Professor, Department of Urology, Taipei Medical University
  - 2014-2016 Chairman, Department of Urology, Taipei Medical University
  - 2016-2022 Director, Graduate Institute of Clinical Medicine, Taipei Medical University
- **Board and Certification**
  - 1990 M.D. License Registration
  - 1994 Board of Urology
  - 1994 Board of General Surgery
- **Membership of Academic Society**
  - Executive committee member of APPS
  - European Association of Urology
  - Taiwan Urology Association
  - Taiwan Surgical Association
  - The Taiwanese Association of Andrology
  - Taiwanese Continence Society



### Metastatic Prostate Cancer Treatment—Considerations in Asia

**Edmund Chiong**

*Head & Senior Consultant, Department of Urology, National University Hospital*

Assoc. Prof. Edmund Chiong, is presently the Head and Senior Consultant of the Department of Urology, National University Hospital, Singapore. He is also an Associate Professor at the National University of Singapore (NUS) and the Urologic Oncology Tumour Programme Lead, National University Cancer Institute, Singapore. Assoc. Prof. Chiong graduated with the degrees of Bachelor of Medicine and Surgery from the National University of Singapore in 1995. He obtained postgraduate qualifications in Surgery (FRCS) and completed of his Urology specialist training in Singapore. Assoc. Prof. Chiong subsequently underwent a 2-year clinical fellowship program in Urologic Oncology at the University of Texas MD Anderson Cancer Center in Houston, Texas, USA. His sub-specialty interest is in Urologic Oncology and performing DaVinci robotic surgery. His research interests include investigating new therapies and diagnostic modalities for urologic malignancies. He was conferred a PhD (NUS) for his thesis on targeted therapy for bladder cancer. He also runs a number of clinical trials in bladder and prostate cancer. He has minor interests in investigating urinary tract infections, and medical device innovation. Assoc. Prof. Chiong is currently Chairman of the Chapter of Urologists (College of Surgeons), Academy of Medicine, Singapore, is Past President (2016-2018) and current Board of Trustees member of the Singapore Urological Association, and Chairman of the Examinations Committee for Urology and Board member, Residency Advisory Committee/Joint Committee on Specialist Training (JCST), Ministry of Health, Singapore. He is also the Deputy Chairman, Scientific Committee, Urological Association of Asia (UAA), a member of the American Urological Association, European Association of Urology and the American Society of Clinical Oncology.

#### **Abstract**

The management landscape of metastatic Prostate Cancer has been rapidly evolving, with many advances and life prolonging treatment options being introduced in the last decade. In metastatic castrate sensitive prostate cancer (mCSPC) patients, the combination of Androgen Deprivation Therapy (ADT) plus either Docetaxel or Novel AR agents, has replaced ADT alone as standard of care. More recently, based on recent trials (PEACE-1 and ARASENS), further intensifying treatment (ADT plus Docetaxel plus Abiraterone/Darolutamide) was shown to confer overall survival (OS) benefit compared to ADT plus Docetaxel for mCSPC patients. However, it is uncertain whether the triplet combination has any clinical outcome advantage over ADT plus Novel AR agents. In metastatic castrate resistant prostate cancer (mCRPC) patients, several lines of therapies (many with overall survival benefit) are now available, including Novel hormonal therapies, Chemotherapy, Radium-223, PARP inhibitors, Lu-177 PSMA and immune check-point inhibitors. A number of novel therapies and combination therapies are also being investigated for mCRPC. Treatment selection for metastatic Prostate Cancer patients should include clinical disease criteria, prior therapy, patient characteristics, genomics, and may also be affected by patient preference, access, affordability considerations. In the Asia-Pacific region, a number of management considerations, such as differential adverse event incidence (eg. Docetaxel), access, cost and regulatory restrictions of therapies, have been informed to influence treatment decisions and sequencing.



### Moderator

**Norio Nonomura**

*Department of Urology, Osaka University Graduate School of Medicine*

#### **Professional background and research experience**

1981.4 - 1986.3	Osaka University Medical School
1986.4 - 1991.3	Department of Urology, Osaka University (Postgraduate course)
1991.11 - 1993.12	National Institutes of Health/Bethesda (Visiting Fellow)
1994.1 - 1998.7	Assistant professor, Department of Urology, Osaka University
1998.8 - 2010.9	Associate professor, Department of Urology, Osaka University
2019.4 - present	Chief, Cancer Genomic Medicine, Osaka University Hospital
2010.10 - present	Professor and Chairman, Department of Urology, Osaka University
2020.4 - present	Vice president, Osaka University Hospital

#### **Research interests**

(Urological malignancies (Prostate cancer, Testicular cancer, Renal cell carcinoma))

#### **Memberships**

The Japanese Urological Association (President)  
The Japan Society of Urological Oncology (President)  
The Japan Society of Clinical Oncology (Auditor)  
The Japanese Cancer Association (Council member)  
The Japanese Association of Andrology (Board of director)  
The Japanese Society of Endocrine Surgery (Board of member)  
American Urological Association (AUA)  
Society for Basic Urology Research (Executive member)  
European Association of Urology (EAU)  
The American Association of Cancer Research





## A single dose of novel PSMA-targeting radiopharmaceutical agent [<sup>177</sup>Lu] Ludotadipep for patients with metastatic castration-resistant prostate cancer: Phase I clinical trial

Ji Youl Lee<sup>1</sup>, Dongho Shin<sup>1</sup>, Seung ah Rhew<sup>1</sup>, Chang Eil Yoon<sup>1</sup>, Hyeok Jae Kwon<sup>1</sup>, Joo Hyun O<sup>2</sup>, Chansoo Park<sup>3</sup>, Dae Yoon Chi<sup>3</sup>

<sup>1</sup>Department of Urology, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea,

<sup>2</sup>Department of Nuclear Medicine, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea,

<sup>3</sup>Research Institute of Labeling, FutureChem Co., Ltd, Seoul, Korea

**Name:** Ji Youl Lee, M.D. & PhD.

### Education & Degree

1989: Graduated from Medical College, The Catholic University of Korea

1990 - 1992: Master of Medical Science, Catholic University Graduate School

1997 - 2000: Doctor of Medical Science, Catholic University Graduate School

### Experience

#### In hospital.

2009 - 2017: Director, Urology Oncology Team, Seoul St. Mary's Hospital

2013 - 2017: Director, Outpatient Clinics, Seoul St. Mary's Hospital

2014 - 2021: Director, Department of Urology, Seoul St. Mary's Hospital

2017 - 2021: President of Smart Hospital (Vice-president of Seoul St. Mary's Hospital)

#### Academic Position

2020 - present: Chairman of Department of Urology

2006 - present: President, Korea Prostate Bank

2014 - present: Director, Catholic Prostate Institute, The Catholic University of Korea

2015 - 2017: President, Catholic Central Bio-Bank

2015 - 2019: Director, Catholic Cancer Research Institute

#### Social Position

2017 - Present: President Asia Pacific Society of Uro-oncology (APSU)

2018 - 2020: President, Asian Pacific Prostate Society (APPS)

2017 - 2019: President, Korean Prostate Society (KPS)

2020 - 2022: President, Korean Society of Urological Research (KSUR)

### Abstract

[<sup>177</sup>Lu] Ludotadipep, which enables targeted delivery of beta-particle radiation to prostate tumors, has been suggested as a promising novel systemic radionuclide therapy for patients with mCRPC. From November 2020 to March 2022, 25 patients were able to finish the study protocol fully and they were treated in groups of 50 mCi, 75 mCi, 100 mCi, 125 mCi, or 150 mCi. [<sup>177</sup>Lu] Ludotadipep was injected via venous injection, and patients were hospitalized for 3 days after the injection to monitor for any adverse effects. Serum PSA levels were followed up at weeks 1, 2, 3, 4, 6, 8, and 12, and [<sup>18</sup>F] PSMA PET CT was taken at week 0 and again at weeks 4 and 8. All patients were [<sup>18</sup>F] PSMA PET CT positive in pre-[<sup>177</sup>Lu] Ludotadipep treatment. Among the 29 subjects in the Safety Set, 36 TEAEs occurred in 17 subjects (58.62%) with 4 ADRs in 3 subjects (10.34%). Of the total 25 patients (full analysis set), 15 (60%) showed any decrease in PSA, 11 (44%) showed a decrease of PSA by more than 30%, and 10 (40%) showed a decrease in PSA by more than 50%. Waterfall plots were created for percentage change of each patient's best PSA response. Only six of the 25 patients (24%) showed disease progression (25% increase in PSA from the baseline) at end of the study (12<sup>th</sup> week). The current study is in the early stages of [<sup>177</sup>Lu] Ludotadipep treatment, with a final target capacity of 150 mCi. Therefore, we suggest that [<sup>177</sup>Lu] Ludotadipep treatment could be promising with low toxicity in mCRPC patients who have not been responsive to conventional treatments.



## Opening Remarks

**Haruki Kume**

*Chair and Professor, Department of Urology, the University of Tokyo*

### WORK EXPERIENCE:

December 2017 - Present: Chair and Professor, Department of Urology, the University of Tokyo  
March 2016 - November 2017: Chief, Department of Urology, National Center for Global Health and Medicine  
July 2008 - February 2016: Associate Professor, Department of Urology, the University of Tokyo  
April 2003 - June 2008: Lecturer, Department of Urology, the University of Tokyo  
April 2000 - March: Associate Professor, International University of Health and Welfare  
June 1992 - May 1995: National Cancer Center Central Hospital  
July 1990 - May 1992: Department of Urology, the University of Tokyo  
July 1989 - June 1990: Department of Urology, Japanese Red Cross Medical Center

### EDUCATION:

April 1996 - March 2000: Graduate School of Medicine, the University of Tokyo  
April 1983 - March 1989: School of Medicine, the University of Tokyo

### SKILLS & QUALIFICATIONS:

Skills in laparoscopic surgery qualified by Laparoscopic Surgical Skill Qualification System (the Japanese Society of Endourology and ESWL)



## Moderator

### **Takashi Fukagai**

*Department of Urology, Showa University School of Medicine, Tokyo, Japan*

#### Education:

- 1980-1986 Showa University, School of Medicine, Tokyo, Japan  
Degree: Doctor of Medicine
- 1986-1990 Showa University Graduate School Department of Urology
- 1997-1999 Research Fellow, Department of Surgery,  
John A. Burns School of Medicine, University of Hawaii.

#### Professional experience:

- 1990-1991 Instructor, Showa University School of Medicine.
- 1991-1993 Medical Staff in Urology  
Tokyo Seamen's Insurance Hospital, Tokyo.
- 1993-1996 Medical Staff in Urology  
Tokyo Metropolitan Hiroo General Hospital, Tokyo.
- 1996-1998 Instructor, Showa University School of Medicine.
- 1998-2003 Assistant Professor of Urology.  
Showa University School of Medicine.
- 2003-2014 Associate Professor of Urology.  
Showa University School of Medicine
- 2014 March Professor of Urology,  
Showa University Koto Toyosu Hospital
- 2016 April Vice Director, Professor of Urology,  
Showa University Koto Toyosu Hospital
- 2021 April Professor and chairman of Urology,  
Showa University School of Medicine



## The utilization of the Japan Study Group of Prostate Cancer registry data

**Masaki Shiota**

*Department of Urology, Kyushu University*

### EDUCATION:

1995-2001 School of Medicine, Kyushu University M.D.  
2006-2010 Graduate School of Medical Sciences, Kyushu University Ph.D.

### PROFESSIONAL TRAINING;

2001-2002 Resident, Department of Urology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan  
2002-2003 Resident, Department of Urology, National Beppu Hospital, Beppu, Japan  
2003-2005 Department of Urology, Harasanshin Hospital, Fukuoka, Japan  
2005-2006 Department of Urology, Saga Prefectural Hospital, Koseikan, Saga, Japan

### POSTDOCTORAL TRAINING:

2010-2012 Postdoctoral Fellow University of British Columbia

### ACADEMIC APPOINTMENTS: (In reverse chronological order)

2012-2018 **Assistant Professor** Department of Urology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan  
2018-2020 **Lecturer** Department of Urology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan  
2020-Present **Clinical Associate Professor** Department of Urology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan

### AWARDS/HONORS:

2009 Second prize in Young Urologist Research Contest, the 61st Western Section Meeting of Japanese Urological Association  
2011 Incitement Award of the Japanese Cancer Association  
2017 EAU Prostate Cancer Research Award  
2017 Society Award from the Japanese Urological Association  
2018 IJU Reviewers of the Year 2017  
2019 IJU Top Cited Article Award 2018  
2019 Medical Research Incitement Award of the Japan Medical Association  
2020 IJU Reviewers of the Year 2019  
2021 Annual Meeting Award from the Japanese Urological Association

### Abstract

The Japanese Urological Association authorized the establishment of the Japan Study Group of Prostate Cancer (J-CaP) registry in 2001 as a large, multicenter, population-based database of men undergoing primary androgen deprivation therapy (PADT). Then, the valuable registry data of approximately 20,000 cases of PADT administered at major urological facilities in Japan from 2001 to 2003 was created by J-CaP study group.

So far, we have conducted the following studies using this database; (1) prostate cancer family history and prognosis in PADT, (2) risks and risk factors for cancer and noncancer deaths among men over 80 years of age treated with PADT, (3) conditional survival and prognostic factors in PADT, and (4) The impact of regional and institutional differences on the prognosis in PADT. Accordingly, I would introduce the results of these studies using the valuable J-Cap registry data and explore the potential of J-Cap registry data.



## Changes in the trends of initial treatment for newly diagnosed prostate cancer in Japan: A nationwide multi-institutional study

**Taketo Kawai**

*Department of Urology, Teikyo University School of Medicine*

### Education

1994-2000	MD	The University of Tokyo
2008-2012	PhD	The University of Tokyo

### Employment

2001-2002	The University of Tokyo	Research Associate
2002-2003	Tokyo Metropolitan Tama Medical Center	Resident physician
2003-2006	Tokyo Metropolitan Ebara Hospital	Full-time physician
2006-2008	Tokyo Metropolitan Bokutoh Hospital	Full-time physician
2012-2013	The University of Tokyo	Assistant Professor
2013-2016	Japanese Red Cross Musashino Hospital	Full-time physician
2016-2018	The University of Tokyo	Assistant Professor
2019-2021	The University of Tokyo	Lecturer
2022-	Teikyo University School of Medicine	Lecturer

### Awards/Honors/Fellowships

2012	The 27th Annual EAU Congress: The Best Poster Award
2012	UAA Youth Section Fellowship
2013	Advancements in Urology

### Society Memberships:

The Japanese Urological Association, Japanese Cancer Association, Japan Society of Clinical Oncology, Japanese Society of Endourology and Robotics, Japanese Society of Geriatric Urology, Japan Society of Urologic Oncology, The Japanese Continence Society, Japan Society for Endoscopic Surgery, Japan Study Group of Prostate Cancer, Japanese Society of Renal Cancer, Japan Urological Photodynamic Society

### Abstract

**Background:** We examined changes in the trends of initial treatment for newly diagnosed prostate cancer in Japan through two nationwide surveys.

**Methods:** Two Japan-wide multi-institutional surveys, J-CaP2010 and J-CaP2016-18, were conducted and enrolled patients newly histologically diagnosed with prostate cancer in 2010 and 2016-2018, respectively. Both surveys included age at diagnosis, initial PSA, ISUP Grade Group, TNM classification, and initial treatment for prostate cancer.

**Results:** Data were collected for 8,192 patients at 140 institutions in J-CaP2010 and 21,841 patients at 186 institutions in J-CaP2016-18. Compared to 2010, the proportion of radical prostatectomy (RP) and radiation therapy (RT) in initial treatment increased (32% to 36% and 21% to 26%, respectively), while the proportion of androgen deprivation therapy decreased (40% to 29%) in 2016-2018. The increase of RP or RT was noticeable in patients aged  $\geq 75$  years (20% to 38%) and patients with high-risk localized cancer (58% to 74%) or locally-advanced cancer; cT3-4N0M0 (43% to 64%) and cN1M0 (11% to 26%). The proportion of robot-assisted radical prostatectomy (RARP) in RP and intensity modulated radiation therapy (IMRT) in RT increased remarkably (2.3% to 78% and 20% to 50%, respectively).

**Conclusions:** Compared to 2010, the proportion of RP and RT increased in 2016-18 as an initial treatment for prostate cancer, especially in patients aged  $\geq 75$  years and patients with high-risk localized or locally-advanced cancer. The spread of RARP and IMRT in Japan may have expanded the target of curative treatment to patients who previously had difficulty in curative treatment.



## Moderator

**Tohru Nakagawa**

*Department of Urology, Teikyo University School of Medicine, Tokyo, Japan.*

- 1994/3 M.D., The University of Tokyo Faculty of Medicine
- 1997/6 Resident, Urology Division, National Cancer Center Hospital
- 2000/4 Chief Resident, Urology Division, National Cancer Center Hospital
- 2002/4 Research Resident, Pathology Division, National Cancer Center Research Institute
- 2004/4 Research Fellow, Department of Urology, Mayo Clinic, U.S.A.
- 2006/3 Ph.D., The University of Tokyo Graduate school of Medicine
- 2006/12 Staff physician, Urology Division, National Cancer Center Hospital
- 2010/6 Chief physician, Urology Division, National Cancer Center Hospital
- 2012/7 Lecturer/Assistant Professor, Department of Urology, The University of Tokyo Graduate School of Medicine
- 2017/4 Professor, Department of Urology, Teikyo University School of Medicine
- 2018/4 Professor and Chairman, Department of Urology, Teikyo University School of Medicine



## 1. Malaysia

### **Teng Aik Ong**

*Professor & Consultant Urologist, Deputy Dean, Faculty of Medicine, University of Malaya, Kuala Lumpur*

Prof Teng Aik Ong served as the President of the Malaysian Urological Association (MUA) from 2021-2022. He is currently the Deputy Dean (Value Creation & Enterprise) of the Faculty of Medicine, University of Malaya, Kuala Lumpur.

Prof Ong was the BJUI Scholar in 2005-2007 during his training period in urology. Since then, he has been active in promoting international collaboration in education and research. He served as a board member of the Urological Association of Asia (UAA) and Societe Internationale d'Urologie (SIU).

Uro-oncology is the focus of the clinical and research activities of Prof Ong. He was instrumental in establishing the first uro-onco clinic in Malaysia, in collaboration with the oncologists. He championed the M-CaP prostate cancer registry for Malaysia (working together with the A-CaP group). His group had recently published the survival data of patients with prostate cancer in Malaysia.



## 2. Turkey

### **Levent Türkeri**

*Department of Urology, Acibadem University Altunizade Hospital, Istanbul, Turkey*

Dr. Türkeri is a Professor of Urology and his main area of expertise is Uro-oncology involving robotic, laparoscopic and open surgery. Currently, he is the chief of the Department of Urology at Acibadem M.A. Aydınlar University Altunizade Hospital. He was one of the founding members of EAU Section of Oncological Urology (ESOU) and involved with many national and international societies such as AUA, EAU, AAEU, URS and APPS.





### 3. Japan

**Mizuki Onozawa**

*Associate Professor, Department of Urology, International University of Health and Welfare, Narita, Japan*

**EDUCATION:**

1993, Graduated from University of Tsukuba, Japan

1999, Completed doctoral program, University of Tsukuba, Japan

**PROFESSION:**

1993, Tsukuba University Hospital, Japan, Resident

1995, National Cancer Center Research Institute, Japan, Research resident

1999, Department of Urology, Kasukabe Chuo General Hospital, Japan

2003, Department of Urology, International University of Health and Welfare Hospital, Japan

2005, Department of Urology, Kasukabe Chuo General Hospital, Japan

2007, Department of Urology, International University of Health and Welfare Mita Hospital, Japan

2008, Department of Urology, University of Tsukuba, Japan

2013, Department of Urology, Tokyo-kita medical center, Japan

2018, Department of Urology, International University of Health and Welfare



## Closing Remarks

### **Teng Aik Ong**

*Professor & Consultant Urologist, Deputy Dean, Faculty of Medicine, University of Malaya, Kuala Lumpur*

Prof Teng Aik Ong served as the President of the Malaysian Urological Association (MUA) from 2021-2022. He is currently the Deputy Dean (Value Creation & Enterprise) of the Faculty of Medicine, University of Malaya, Kuala Lumpur.

Prof Ong was the BJUI Scholar in 2005-2007 during his training period in urology. Since then, he has been active in promoting international collaboration in education and research. He served as a board member of the Urological Association of Asia (UAA) and Societe Internationale d'Urologie (SIU).

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## Best Poster Award at Foyer



### Moderator

**Hidefumi Kinoshita**

*Department of Urology and Andrology, Kansai Medical University*

- 2020 Chair Pearson, Department of Urology and Andrology, Kansai Medical University
- 2016 Professor, Kansai Medical University
- 2004 Associate Professor, Kansai Medical University
- 2000 Assistant Professor, Kyoto University
- 1999 Clinical Fellow in Osaka Red-Cross Hospital
- 1996 Associate Researcher, University Wisconsin, Madison
- 1993 Graduate School of Medicine, Kyoto University
- 1990 Clinical Fellow in Kurashiki Central Hospital
- 1988 Resident in Kyoto University Hospital
- 1988 Graduated from School of Medicine, Kyoto University

## Session 20: Liquid Biopsy



### Moderator

**Kazuhiro Suzuki**

*Department of Urology, Gunma University Graduate School of Medicine*

MD. 1988 Gunma University, Faculty of Medicine

Ph. D. 1996 Gunma University, Graduate School of Medicine

1997-1999 Post-doctoral fellow, Department of Hematology/Oncology, Professor Micheal Caligiuri

2004 Professor and Chairman, Department of Urology, Gunma University Graduate School of Medicine



### Liquid Biopsy for Prostate Cancer

#### Yeong-Shiau Pu

*NTUH GU Cancer Group, Decipher Study Team, and BigUro Study Team,  
Professor and senior urologist, Department of Urology, National Taiwan University College  
of Medicine*

#### TRAINING:

- MD 1987. PhD 1995. EMBA 2007 at National Taiwan University (NTU)

#### CURRENT APPOINTMENT:

- Professor, Dept. Urology and Institute Clinical Medicine, NTU College of Medicine
- Senior Urologist, NTU Hospital

#### PAST APPOINTMENT:

- Chairman, Dept of Urology, NTU College of Medicine and Hospital (2012 - 2018)
- President, Taiwan Urological Association (2018 - 2020)
- President and Founder, Taiwan Maple Urological Association (2014 - 2021)

#### HONORS AND FUNDING:

- Honorary Membership of Japanese Urological Association (Japan, 2019)
- US FDA Phase III Trial Global Lead Principal Investigator (Taiwan and US, 2009 - 2018)
- Research Grant Funding > 400 million USD in the past 30 years

#### PUBLICATIONS:

- Published > 200 SCI papers (80 papers as first/Corresp authors). H-index 38.

#### RESEARCH FOCUS:

- Prostate Cancer, Urological Oncology

#### Abstract

My talk focuses on predicting prostate cancer (PC), especially to differentiate clinically significant PC (sPC) from insignificant PC (isPC) using urine or blood biomarkers. Serum PSA is useful in screening but it is associated with low specificity, high false-negative and false-positive rates. Moreover, it poorly differentiates sPC from isPC before biopsy. For men with elevated PSA, biopsy is necessary to confirm cancer and obtain Gleason score to assign risk groups. Ideal biomarkers that inform risk groups before biopsy is urgently needed to avoid unnecessary biopsies.

**Serum biomarkers.** Two serum biomarkers have been approved by both USFDA and EMA, i.e., 4K score and Prostate Health Index (PHI). Both adopt a mixed algorithm of PSA isoforms and predict PC and high-grade PC (Gleason score  $\geq$  7) better than PSA. A study on 1,012 men showed that 4K score predicted sPC well (AUC 0.82) and 30% biopsy could be avoided but missed only 1.3% of sPC. PHI improves the detection rates of PC and sPC by 4.7 and 8.6 folds in Asian men based on the PHI cutoff of 35, where 71% of biopsy would have been avoided.

**Urine biomarkers.** Urinary PCA3 detects PCA-3 non-coding RNA with an AUC of 0.64 and sensitivity and specificity between 52-58% and 72-87%, respectively. Mi Prostate Score, SelectMDx, urinary exosome, and others also showed improved AUCs in detecting PC or sPC. Recently, studies on urine metabolomics generated promising results, which, however, mostly involves small sample size, suboptimal control groups, and imprecise risk group stratification. Through urine GS-MS metabolomics profiling, we have obtained good AUCs in predicting PC and sPC. Details will be presented in the meeting.

## Session 21: Topics of New Diagnostic Methods p2PSA



### Moderator

#### Rainy Umbas

*Department of Urology, "CiptoMangunkusumo" Hospital/Faculty of Medicine, University of Indonesia*

**Prof. Rainy Umbas** is an oncological-urology consultant at Department of Urology, Faculty of Medicine, University of Indonesia/ "Dr.Cipto Mangunkusumo" General Hospital. He achieved his medical and urologist degree from the same University in 1975 and 1987 respectively.

Between 1990 and 1993 he was a clinical and research fellow at the Department of Urology and Urology Research Laboratory, Catholic University of Nijmegen, the Netherlands. In 1994 he obtained his PhD degree with dissertation entitled "E-cadherin and alpha-catenin expression of prostate and bladder cancer". Promotor: Prof. F.M.J. Debruyne, co-promotor: Prof. J.A. Schalken.

He was the Chairman of Urology Training Program as well as Chairman of the Board of Professor, Faculty of Medicine, University of Indonesia, and Chairman of the Indonesian College of Urology.

Served as consulting editor for British Journal of Urology International (2012-2020), Prostate International, Investigative and Clinical Urology (Korean Journal of Urology), Asian Journal of Urology, and several Indonesian medical journals. He is also a voluntary reviewer for Turkish Journal of Urology, World Journal of Urology, Indian Journal of Medical Research, Urology Journal, Contemporary Clinical Trials Communications, and The Lancet Oncology.

Had been a principal country investigator for several phase 2, 3, and post-marketing multinational clinical studies on new drugs for urological cancer. He also served as NCCN Asia Consensus Panel member for Prostate, Kidney, and Bladder Cancer, and Panel member for several Indonesian Urological Association Guidelines. Has authored/co-authored over 100 peer-reviewed articles, mainly on oncological-urology.

He was the President of Indonesian Urological Association (2000-2003), President of Urological Association of Asia (2006-2008), and Director of Asian School of Urology (2010-2014), and currently Chairman of Indonesia Society of Oncological Urology (Ina-SOU), Honorary Consultant for Asian School of Urology, and Elected Council member in Urological Association of Asia.

He is an Honorary Member of European Association of Urology & Chinese Urological Association, and he received the Life Time Achievement Award from Indonesian Urological Association in 2021.



### Moderator

#### Yoshihiko Hirao

*Osaka Gyomeikan Hospital, Osaka, Japan*

#### Professional Training and Employment:

1972	Nara Medical University, Resident (Urology)
1974	Nara Prefectural Hospital, Chief (Urology)
1977	Nara Medical University, Fellow (Urology)
[1977-79	Northwestern Univ. Medical School, research fellow (Pathology)]
1983	Nara Medical University, Lecturer (Urology)
1983	Nara Medical University, Associate Professor (Urology)
1996	Nara Medical University, Professor (Urology)
2012~	Nara Medical University, Emeritus and Research Professor
2012~	Osaka Gyomeikan Hospital, Honorary Director
2022~	Japan Foundation for Prostate Research, President

#### Major interests in Research:

- UroOncology
- Voiding function
- Endourology
- Medical engineering



### Current update on prostate health index (*phi*) in Japan

**Kazuto Ito**  
*Kurosawa Hospital*

Kazuto Ito, MD, PhD, is currently Director of Kurosawa Hospital and Research Professor of Advanced Medical Science Research Center, Gunma Paz University, Takasaki, Japan. Previously, Dr. Ito was an Associate Professor in the Department of Urology at Gunma University Graduate School of Medicine between 2005 and 2018.

Dr. Ito graduated medical school in Gunma University, Japan in 1990 and got Ph.D. (Urology), Gunma University School of Medicine (Thesis: The Evidence of Estrogen Production in the Prostate) in 1997.

Dr. Ito conducted research at Erasmus Medical Centre, Rotterdam, Netherlands, between 2002 and 2003. His research interests include prostate cancer epidemiology, screening and biomarkers, including PSA and related indices.

Society: Japanese Urological Association/AUA/EAU/SIU/Japan Society of Clinical Oncology/Japanese Society of Endourology, etc.

Editorial Board: European Urology since 2008.

#### Abstract

In order to improve diagnostic accuracy of clinically significant prostate cancer, the most promising new biomarker may be proenzyme PSA (proPSA). Previous studies demonstrated that [-2]proPSA could be more useful not only to distinguish men with prostate cancer from those without, but also tumors with aggressive features from those without compared to other classical PSA-related indices including ratio of free PSA to total PSA (%f-PSA) and PSA density. Prostate health index (*phi*) is calculated by the equation,  $[-2]proPSA/free\ PSA \times \sqrt{PSA}$ , was approved in Japan by the PMDA (Pharmaceuticals and Medical Devices Agency) in January 2021 and has been able to use in clinical practice since November 2021 based on the significant results in multicenter prospective clinical study, PROPHET (Prostate Cancer: Prostate Health Index Trial). According to the PROPHET data, laboratory based [-2]proPSA related indexes were significantly superior for detecting clinically significant prostate cancer compared to %f-PSA. The indexes those would avoid up to 42% of prostate biopsies in men without aggressive cancer while maintaining 90% sensitivity. Furthermore, baseline [-2]proPSA-related indices immediately before starting active surveillance (AS) were independent factors to predict pathological reclassification at one year after entering AS. In the future, based on data from a ongoing preliminary study, prostate volume- adjusted [-2]proPSA-related indices would be a more useful tools to distinguish a clinically significant prostate cancer from non-aggressive prostate cancer while saving unnecessary biopsy.



### Effectiveness of [-2]proPSA measurement in the diagnosis of significant prostate cancer compared to MRI and PSA

**Hiroji Uemura, MD. PhD.**

*Department of Urology and Renal Transplantation, Yokohama City University Medical Center*

#### **EDUCATION**

##### **Degree**

March 1996 PhD, Yokohama City University School of Medicine

March 1985 MD, Yokohama City University School of Medicine

##### **APPOINTMENTS**

June 1985 - May 1987, Yokohama City University Hospital, Resident

June 1987 - May 1990, Staff of Urology, Yokosuka Kyouzai Hospital

June 1990 - May 1992, Staff of Urology, Yokosuka Hokubu Kyouzai Hospital,

October 1992 - February 1995, Associate Researcher, University of Wisconsin, Comprehensive Cancer Center, USA

March 1995 - Instructor, March 1998, Yokohama City University School of Medicine

April 1998 - March 2003, Assistant Professor, Yokohama City University Hospital

April 2003 - Associate Professor, Yokohama City University Graduate School of Medicine

April 2015 - Director, Associate Professor, Department of Urology and Renal Transplantation, Yokohama City University Medical Center

April 2016 - Director, Clinical Professor, Department of Urology and Renal Transplantation, Yokohama City University Medical Center

##### **Society activity**

Japanese urology association (executive board member), Japanese cancer association (board member), Japanese society of clinical oncology (board member), Ethics committee of Tokyo University, AACR, ASCO, AUA, ESMO, Panel member of APCCC2021, 2022

#### **Abstract**

In the early stages of prostate cancer (PCa), it is important to prevent the overdiagnosis and overtreatment. Prostate specific antigen (PSA) has been used to detect PCa. In order to avoid unnecessary prostate biopsy, more accurate diagnostic procedures for PCa are needed. Recent studies showed that the percentage of serum isoform [-2]proPSA (p2PSA) to free PSA (%p2PSA), the Prostate Health Index (PHI) and magnetic resonance imaging (MRI) were more accurate than PSA. Our study aimed to test the accuracy of %p2PSA, PHI and MRI in discriminating patients with and without PCa. The subjects were 50 consecutive men with a PSA level of 2.0-10.0 ng/ml, who underwent prostate biopsy. These patients underwent multiparametric MRI before biopsy, and their serum samples were measured for PSA, free PSA and p2PSA. The sensitivity, specificity and accuracy of PHI, %p2PSA and MRI were compared with PSA in the diagnosis of biopsy-confirmed PCa. The results showed that %p2PSA and PHI were more accurate than MRI and PSA for PCa detection. For significant cancer detection, %p2PSA, PHI and MRI were marginally more accurate than PSA. In conclusion, PHI and %p2PSA can be used for screening the general population and MRI can be used for detection of significant cancer in patients suspected, from screening tests, of having PCa. Although MRI PIRADS scoring score was not used in this study, the combination of PIRADS scoring and PHI would be more useful to detect significant localized PCa.



## Moderated Poster Presentation 1



### Moderator

#### **Kazuhiko Oshinomi**

*Department of Urology, Showa University School of Medicine, Tokyo Japan*

Education: 1998-2004 MD, Showa University School of Medicine  
2006-2010 PhD, Showa University Graduate School Department of Urology

#### Professional:

2004-2006 Resident, Tokyo Metropolitan Otsuka Hospital  
2010-2015 Instructor, Showa University School of Medicine  
2016-present Assistant Professor of Urology, Showa University School of Medicine



### Moderator

#### **Jacob ST Pang**

*President of Taiwan Urological Association, Chung Shan Medical University*

#### **Current Appointment**

- Professor, Ministry of Education, Taiwan (Aug. 2015)
- Vice-Superintendent, CGMH Linkou, Taiwan (Jul. 2017~)
- President, Taiwan Urological Association (Aug. 2022~)

#### **Education**

- **Medical School:** Chung Shan Medical University, Tai-Chung, Taiwan (Sep. 1983 - Jun. 1990)
- **PhD:** Karolinska Institute, Stockholm, Sweden (Aug. 1999 - Oct. 2003)
- Head, Section of Urooncology, Dept. of Urology, CGMH Linkou, Taiwan (Aug. 2007 - Jul. 2014)
- Chief, Operating Room, CGMH Linkou, Taiwan (Feb. 2012 - Jun. 2016)
- Director, Department of Medical Research and Development Linkou Branch, CGMH Taiwan (Jul. 2016 - June 2017)
- President, Taiwan Urological Oncology Association (Jan. 2016 - Jan. 2018)
- Vice-President, Taiwan Urological Association (Sep. 2018 - Aug. 2022)

#### **Major Research**

- Cancer genomics, Molecular biology

#### **Specialization**

- Robotic Surgery, Urological Cancer

## Moderated Poster Presentation 1



### Moderator

**Thomas S Namiki, MD**  
*University of Hawaii, USA*

#### EDUCATION:

Undergraduate: Yale University, New Haven, CT (BA Biochemistry)

Medical School: John A Burns School of Medicine, University of Hawaii

Internship: UCLA Medical Center, General Surgery

Residency: LA County - University of Southern California Medical Center, Pathology

Fellowship: Surgical pathology, LAC-USC Medical Center

Chief Resident/Surgical Pathology, UCLA Medical Center.

#### CLINICAL POSITIONS:

1989-90 Associate Director, Dept of Surgical Pathology, LAC-USC Medical Center,

1989-90 Staff Pathologist, The Orthopaedic Hospital, Los Angeles,

1990-1994 Director of Cytopathology, Dept. of Pathology, The Queen's Medical Center, Honolulu, HI,

2002-2003 Medical director, Johnston Atoll Medical Clinic Laboratory

1990-2020 Department of Pathology, The Queen's Medical Center (1992-2012 Director of Anatomic Pathology).

#### TEACHING APPOINTMENTS:

1985-1988 Clinical Instructor, Dept of Pathology, USC School of Medicine.

1988-1989 Adjunct Clinical Assistant Professor, Dept of Pathology, UCLA School of Medicine.

1989-1990 Assistant Professor of Pathology, USC School of Medicine.

1990-Present Associate Clinical Professor of Pathology, John A Burns School of Medicine, University of Hawaii.

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## MP1-1 A mitochondria-targeted drug induces apoptosis in prostate cancer xenografts

*Seiji Arai, Akira Ohtsu, Tatsuhiro Sawada, Mai Kato, Yuta Maeno, Yoshiyuki Miyazawa, Yoshitaka Sekine, Kazuhiro Suzuki*

*Gunma University Graduate School of Medicine*

**Introduction:** We have previously shown that prostate cancer is primed to undergo apoptosis with BH3 mimetics targeting anti-apoptotic proteins, including BCL2, BCLXL, and MCL1 (Clinical Cancer Res 2018). We have also revealed that receptor tyrosine kinase inhibitors induced MCL1 degradation through integrated stress response and mitochondrial E3 ubiquitin ligase MARCH5 (eLife 2020). We hypothesized that drugs targeting mitochondria might induce apoptosis in prostate cancer.

**Methods:** In this study, we have conducted small-scale screening of drugs that are supposed to target mitochondria in prostate cancer cells.

**Results:** Drug A decreased prostate cancer cell growth within nM levels in vitro. Drug A rapidly reduced several proteins (MCL1, AR, AR-V7, and c-MYC proteins) and significantly induced apoptosis in prostate cancer cells in vitro and in vivo.

**Conclusions:** Targeting mitochondria might be a novel strategy to treat prostate cancer.

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## MP1-2 Hyperforin Induces Extrinsic/Intrinsic Apoptosis Signaling and Inhibits NF- $\kappa$ B for Metastasis Suppression in Prostate Cancer Cells

*Cheng-Hsi Liao<sup>1,2,3,4</sup>, Wen-Shin Chang<sup>2,3</sup>, Pei-Shin Hu<sup>2,3</sup>, Chia-Wen Tsai<sup>2,3</sup>, Hsi-Chin Wu<sup>5</sup>, Da-Tian Bau<sup>2,3</sup>*

<sup>1</sup>Division of Urology, Department of Surgery, Taichung Armed Forces General Hospital, Taichung, Taiwan

<sup>2</sup>Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan

<sup>3</sup>Terry Fox Cancer Research Laboratory

<sup>4</sup>Graduate Institute of Medical Sciences, National Defense Medical Center, Taipei, Taiwan

<sup>5</sup>Department of Urology, China Medical University Hospital, Taichung, Taiwan

**Purpose:** Prostate ca is the second most prevalent cancer for men and the fifth leading cause of death in the world. It is urgently needed to figure out novel and practical anti-prostate cancer drugs. In this study, we have some data showing that hyperforin can be the potential one.

**Materials and Methods:** The alterations in cell viability, production of reactive oxygen species (ROS), and pro- and anti-apoptotic signaling will be measured via typical MTT assay, flow cytometry, ELISA and Western blot analyzing modules.

**Results:** Our results show that hyperforin significantly induces apoptosis, extrinsic/intrinsic apoptotic signaling, accumulation of cytosol ROS, and calcium signaling. It can sig-

nificantly diminish the expression of NF- $\kappa$  B p65 (Ser276), anti-apoptotic and tumor progression-associated proteins. **Conclusions:** All our finding may of academic value in revealing the intracellular signaling network triggered by hyperforin in prostate cancer cells.

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## MP1-3 Combination therapy with novel androgen receptor antagonists and statin for castration-resistant prostate cancer

*Yoshitaka Sekine, Hiroshi Nakayama, Daisuke Oka, Yoshiyuki Miyazawa, Seiji Arai, Hidekazu Koike, Hiroshi Matsui, Yasuhiro Shibata, Kazuhiro Suzuki*

*Department of Urology, Gunma University Graduate School of Medicine*

We investigated whether the combination therapy with novel androgen receptor antagonists and statin could inhibit castration-resistant prostate cancer cell growth. In androgen independent LNCaP-LA cells, AR protein expression was suppressed by simvastatin, but not in 22Rv1 cells. The combination with darolutamide and simvastatin suppressed cell proliferation of both LNCaP-LA and 22Rv1 cells. The same applied to mouse xenograft model in 22Rv1 cells. In LNCaP-LA cells, the combination therapy decreased gene expressions regulated by androgen, but not in 22Rv1 cells. Ingenuity Pathway Analysis under the combination therapy in 22Rv1 cells showed the number of differentially expressed genes was the biggest in the pathway of "Role of cell cycle". In conclusion, the combination of novel AR antagonists and simvastatin can potentially affect castration-resistant prostate cancer growth in both androgen dependent and independent mechanisms.

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## MP1-4 Lipopolysaccharide from dysbiotic gut microbiome promotes prostate cancer growth through histamine H1 receptor signaling

*Kazutoshi Fujita<sup>1</sup>, Makoto Matsushita<sup>2</sup>, Daisuke Motooka<sup>3</sup>, Hiroaki Hase<sup>4</sup>, Koji Hatano<sup>2</sup>, Takafumi Minami<sup>1</sup>, Marco De Velasco<sup>1</sup>, Kazuhiro Yoshimura<sup>1</sup>, Norio Nonomura<sup>2</sup>, Hirotsugu Uemura<sup>1</sup>*

<sup>1</sup>Department of Urology Kindai University Faculty of Medicine

<sup>2</sup>Department of Urology Osaka University Graduate School of Medicine

<sup>3</sup>Department of Infection Metagenomics, Research Institute for Microbial Diseases

<sup>4</sup>Laboratory of Cell Biology and Physiology, Osaka University, Graduate School of Pharmaceutical Sciences

We investigated the etiology of high-fat diets (HFD)-induced prostate cancer growth and the involvement of the gut microbiome. The expression of *Hdc* and histamine level was upregulated in prostate tumor of HFD-fed mice, and the number of mast cells was increased in tumor. Administration

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of fexofenadine, a histamine H1 receptor antagonist, suppressed tumor growth in HFD-fed mice by reducing the number of myeloid-derived suppressor cells and suppressing IL6/STAT3 signaling. HFD intake induced gut dysbiosis, resulting in the elevation of serum lipopolysaccharide (LPS) levels. Injection of LPS increased *Hdc* expression in PCa. LPS/Toll-like receptor 4 signal inhibition suppressed HFD-induced tumor growth. In humans, mast cells were increased in total prostatectomy specimens from severely obese patients. In conclusion, HFD promotes PCa growth through histamine signaling via mast cells. Dietary high-fat induced gut dysbiosis might be involved in the inflammatory cancer growth.

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### **MP1-5 GDF15 propeptide is a novel and useful biomarker for bone metastases in prostate cancer**

*Gaku Yamamichi<sup>1</sup>, Taigo Kato<sup>1</sup>, Shohei Myoba<sup>2</sup>, Yu Ishizuya<sup>1</sup>, Yoshiyuki Yamamoto<sup>1</sup>, Koji Hatano<sup>1</sup>, Atsunari Kawashima<sup>1</sup>, Motohide Uemura<sup>1,3,4</sup>, Norio Nonomura<sup>1</sup>*

<sup>1</sup>Department of Urology, Osaka University Graduate School of Medicine, Osaka, Japan

<sup>2</sup>Bioscience Division, Research and Development Department, Tosoh Corporation, Kanagawa, Japan

<sup>3</sup>Department of Urology, Iwase General Hospital, Fukushima, Japan

<sup>4</sup>Department of Urology, Fukushima Medical University, Fukushima, Japan

#### **Background**

GDF15 is a protein secreted by cancer cells. We found GDF15 propeptide (GDPP) was also secreted in various types of prostate cancer (PCa) cell lines and might be associated with bone metastases (BM). In this study, we aimed to investigate the efficacy of GDPP as a blood biomarker for BM in PCa patients.

#### **Materials and Methods**

We collected plasma from 107 patients with BM and 102 patients with distant metastases except bone in advanced PCa, urothelial cancer (UC) and renal cell carcinoma (RCC). We examined the correlation between GDPP and bone scan index (BSI) of bone scintigraphy.

#### **Results**

We found that the area under the curves of detecting BM for PCa, UC, and RCC was 0.90, 0.87 and 0.81. Interestingly, we confirmed that GDPP was significantly correlated with BSI in PCa patients ( $r = 0.81$ ,  $p < 0.01$ ), and its correlation factor was significantly higher than PSA and ALP (both  $p < 0.01$ ).

#### **Conclusion**

Plasma GDPP was useful for the diagnosis of BM and correlated with BSI in PCa.

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### **MP1-6 Withdrawn**

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### **MP1-7 Is 12 Systemic Cores in Transperineal Biopsy Sufficient for Detecting Clinically Significant Prostate Cancer?**

*Chang Eil Yoon, Seung Ah Rhew, Hyeok Jae Kwon, Dongho Shin, Hyoung Woo Moon, Yong Hyun Park, Ji Youl Lee*

Department of Urology, Seoul St. Mary's Hospital, College Of Medicine, The Catholic University Of Korea, Seoul, Korea

**Introduction:** For transperineal (TP) prostate biopsy, target biopsy for visible lesion on MRI is essential, but the systemic biopsy is also important for detection of non-visible lesion on MRI. This study aims to confirm the diagnostic efficiency of 20-core systemic biopsy by comparison with 12-core systemic biopsy.

**Methods:** The 494 patients who were conducted the naive TP biopsy were retrospectively analyzed. 293 patients for 12-core biopsy and 201 patients for 20-core biopsy was analyzed by using propensity score matching analysis for minimizing confounding variables.

**Results:** At 12-core biopsy, there were 97 cases of csPCa and 63 cases for 20-core biopsy. For index negative csPCa, the odds ratio was 4.03 ( $p = 0.0128$ ), but for index positive csPCa, the odds ratio was 0.98 ( $p = 0.9308$ )

**Conclusion:** If there is a suspicious lesion in MRI, 20-core biopsy is excessive and 12-core biopsy is sufficient. Whereas if there is no suspicious lesion in MRI, 20-core biopsy is better.

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### **MP1-8 The Impact of mpMRI on Treatment Strategy for Incidental Prostate Cancer after HoLEP**

*Chung Un Lee, Ji Hwan Lee, Jae Hoon Chung, Minyong Kang, Hwang Hyun Jeon, Byong Chang Jeong, Seong Il Seo, Seong Soo Jeon, Hyun Moo Lee, Wan Song*

Department of Urology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

**Introduction:** We investigated the impact of mpMRI on treatment strategy for incidental prostate cancer (iPCa) after HoLEP.

**Methods:** We retrospectively reviewed patients who underwent HoLEP and identified iPCa between Sep 2009 and Mar 2022. The treatment pattern of iPCa according to Gleason grade(GG) and those according to combination of GG and mpMRI were analyzed.

**Results:** A total of 62 patients was analyzed. In patients with GG1 and GG2, active surveillance (AS) was performed in 78.6% and 53.8% of patients. However, in patients with GG 1, AS was performed in 88.9% when PI-RADSv2 score was 2 and, in 66.7% of patients when PI-RADSv2 score was 3. For patients with GG2, AS was performed in 80.0% when PI-RADSv2 score was 2 and, in 40.0% of patients when PI-RADSv2 score was 3. For patients with GG 3-5, all patients had a PI-RADSv2 score 4 or 5, thus active treatment was

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performed.

**Conclusions:** For management of iPCa after HoLEP, mpMRI plays an important role in risk stratification.

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### **MP1-9 Clinicopathological analysis of prostate cancer with lymph node metastasis in the prostatic anterior fat pad**

*Junichi Ikeda, Takahiro Nakamoto, Hidefumi Kinoshita*  
*Department of Urology and Andrology, Kansai Medical University*

**Background:** Several reports have described the presence of lymph nodes (LNs) within the prostatic anterior fat pad (PAFP). Although metastatic LNs in the PAFP affect pathologic staging, the need for routine pathologic analysis is unclear.

**Purpose:** This study aims to evaluate the presence of PAFP LNs and risk factors for PAFP LN metastases.

**Methods:** We included 251 patients who underwent PAFP resection during prostatectomy between January 2019 and December 2021 at Kansai Medical University Hospital. The association between clinicopathologic factors and the presence of LNs or LN metastasis within the PAFP was examined.

**Results:** LNs were found in the PAFP in 17 (6.8%) cases, and metastatic LNs in the PAFP were found in 2 (0.8%) cases. PAFP LNs were not associated with clinicopathologic factors. Two cases with LN metastasis in the PAFP were both high-risk cases.

**Conclusion:** Our results suggest that patients with high-risk factors might benefit from pathologic analysis of the PAFP.

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### **MP1-10 Robotic-Assisted Simple Prostatectomy using the da Vinci SP system, pilot study**

*ByungHoon Kim, Haejin Byun, Jiyong Ha, WonHo Jung, Taekjun shin, hyunchan Jang*  
*keimyung university, school of medicine*

**Introduction:** To present the updated technique and evaluate the perioperative and postoperative outcomes of Robotic-assisted single port simple prostatectomy (SP RASP)

**Methods:** Seven consecutive patients with BPH indicated for surgery underwent SP RASP in a single institution. Demographics, perioperative and postoperative data were prospectively collected.

**Results:** The median age was 69 years, prostatic volume was 80cc and transitional zone volume was 42cc. median operation time was 102 minutes. Foley catheter was removed 5 days later. The Median IPSS score decreased from 21.1 before the surgery to 5.6 after the surgery. All patients had a immediate continence and significant postoperative im-

provement in maximum flow rate (7.4 to 20.1 mL/sec).

**Conclusions:** In our initial series, SP RASP allows for favorable perioperative and early postoperative outcomes including low complication, short Foley catheter stay, immediate continence and quick recovery.

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### **MP1-11 Early outcomes of Single port robotic radical prostatectomy: 1 year followed up**

*Seokhwan Bang, Hyuk Jin Cho, U-Syn Ha, Sung-Hoo Hong, Ji Youl Lee*

*Department of Urology, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul*

#### **Introduction**

To describe the early outcomes after induction of single port (SP) robot-assisted radical prostatectomy(RARP).

#### **Materials and Methods**

We reviewed 78 consecutive patients diagnosed with prostate adenocarcinoma who underwent SP RARP for 1 year from September 2021 when new robotic platform was introduced. The surgery was performed by 5 experts.

#### **Results**

A total of 78 patients underwent surgery during one year, and the mean age was  $66.04 \pm 7.914$  years. The mean tumor size was  $1.32 \pm 0.536$  cm in preoperative MRI and the mean PIRADS score was  $4.14 \pm 0.726$ . The patients' preoperative PSA was  $8.86 \pm 8.076$ ng/dl. The average console time was  $74.00 \pm 14.562$  minutes, and the expected blood loss was  $110.91 \pm 100.42$  ml. (Table 1) Postoperative pathological results and the postoperative Gleason score is summarized in Table 2. The mean PSA after 3 months was  $0.040 \pm 0.16$  ng/dl and the mean PSA after 6 months was  $0.021 \pm 0.038$  ng/dl. (Table 2)

#### **Conclusion**

SP RARP demonstrates technical safety and feasibility.

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### **MP1-12 Comparison of longitudinal health-related QOL outcomes between anterior and posterior approaches to robot-assisted radical prostatectomy**

*Naoya Nagasaki, Yuki Maruyama, Takuya Sadahira, Satoshi Katayama, Takehiro Iwata, Kensuke Bekku, Kohei Edamura, Tomoko Kobayashi, Yasuyuki Kobayashi, Motoo Araki*

*Department of Urology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan*

The aim of this study is to assess differences of health-related QOL (HRQOL) following these two surgical approaches at our institution. We included 270 patients in this retrospective who underwent RARP using an anterior or posterior surgical approach at our institution by three skillful

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surgeons from January 2012 to July 2021, and who could evaluate preoperatively the Expanded Prostate Cancer Index Composite (EPIC) score. Patients treated with neoadjuvant hormonal therapy were excluded. HRQOL was assessed using the EPIC score at 6 timepoints. We defined the minimal clinically important difference (MCID) as half the standard deviation of the baseline score for each domain. The propensity score matching was used to balance the preoperative characteristics. The analysis of MCID revealed there is no significant impact in surgical approaches. Our study demonstrates no significant differences in HRQOL between anterior and posterior surgical approaches to RARP.

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### **MP1-13 Novel Nomogram Predicting Biochemical Recurrence-Free Survival After Radical Prostatectomy**

*Ieandro blas, Masaki Shiota, Dai Takamatsu, Fumio Kinoshita, Takashi Matsumoto, Ken Lee, Keisuke Monji, Eiji Kashiwagi, Junichi Inokuchi, Masatoshi Eto*

*kyushu university hospital*

**Objective:** To analyze biochemical recurrence (BCR)-free survival (FS) evolution and develop a nomogram to predict BCR-FS including postoperative (PO) prostate-specific antigen (PSA).

**Method:** We included 718 men treated with robotic-assisted radical prostatectomy (RARP). Cox model and decision curve analyses were used to compare to the Cancer of the Prostate Risk Assessment post-Surgical (CAPRA-S) score.

**Results:** The 5-year BCR-FS rates increased to 82.6%, 85.2%, and 91.6% for men surviving at 1, 3, and 5 years without BCR, respectively. Pathological Gleason, T-stage, surgical margin, PSA  $\geq 0.05$  ng/mL at 1 year, and lymph-node involvement were independent risk factors for BCR after 1 year PO. Our nomogram had a higher c-index (0.89 vs 0.78) than the CAPRA-S (0.78,  $p=0.001$ ), and positive net benefit at 3 and 5 years PO.

**Conclusion:** 5-year conditional BCR-FS increased with survivorship without BCR. The nomogram significantly improved the accuracy in predicting BCR-FS after RARP.

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### **MP1-14 Carbon-ion radiotherapy for high-risk prostate cancer in Gunma University Heavy Ion Medical Center**

*Hiroshi Matsui<sup>1,2</sup>, Hidemasa Kawamura<sup>1,3</sup>, Masahiro Ohnishi<sup>1,3</sup>, Akiko Adachi<sup>1,3</sup>, Naoko Okano<sup>1,3</sup>, Yoshiyuki Miyazawa<sup>2</sup>, Yoshitaka Sekine<sup>2</sup>, Hidekazu Koike<sup>2</sup>, Kazuhiro Suzuki<sup>1,2</sup>, Tatsuya Ohno<sup>1,3</sup>*

<sup>1</sup> Gunma University Heavy Ion Medical Center

<sup>2</sup> Department of Urology, Gunma University Graduate School of Medicine

<sup>3</sup> Department of Radiation Oncology, Gunma University Graduate School of Medicine

**Objectives:** We evaluated the efficacy and toxicity of carbon-ion radiotherapy (CIRT) for high-risk PC in Gunma University Heavy Ion Medical Center.

**Materials/Methods:** Patients were classified as having high-risk disease with clinical stage T3a or T3b, a Gleason score 8 or greater, or a pretreatment PSA more than 20 ng/mL. Neoadjuvant androgen deprivation therapy (ADT) for 6 months and adjuvant ADT for 1.5 years were given to the patients with high-risk disease. We evaluated the efficacy and toxicity of CIRT for 278 high-risk PC patients.

**Results:** Late grade 2 gastrointestinal toxicity was seen in 0.7%. Late grade 2 and 3 genitourinary toxicity was seen in 18.1 and 0.4%. The proportion of patients who were biochemical failure (Phoenix definition) free at 5 years was 91.4%. The 5-year overall survival was 96.7%. There were 4 deaths from PC.

**Conclusions:** Our findings demonstrated that CIRT for high-risk PC seemed effective and safety for Japanese patients.

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### **MP1-15 Salvage low-dose rate brachytherapy for local recurrence of prostate cancer after radical radiotherapy**

*Takahiro Nakamoto, Junichi Ikeda, Hidefumi Kinoshita*

*Urology and Andrology, Kansai Medical University*

**Background**

When patients show biochemical PSA recurrence (BPR) after radiotherapy, one of the therapeutic options is salvage low-dose rate brachytherapy (sLDR-BT). Several studies have reported the safety and efficacy of sLDR-BT. However, there is no clear evidence of the risk factors for BPR after sLDR-BT.

**Purpose**

This study aims to describe the risk factors for BPR after sLDR-BT.

**Methods**

17 patients underwent sLDR-BT from 2012 to 2021. The clinicopathological data from these patients were retrospectively analyzed.

**Results**

9 patients developed BPR in a median follow-up of 68.8 months. Recurrence-free survival rates at 3 years and 5 years were 70.5% and 56.1%. A univariate analysis showed that the PSA level before sLDR-BT and MRI stage  $\geq T3$  before the first radiotherapy treatment were the risk factors associated with BPR after sLDR-BT.

**Conclusion**

The risk factors for BPR after sLDR-BT may be the PSA level before sLDR-BT and MRI stage  $\geq T3$  before the first radiotherapy treatment.

## Moderated Poster Presentation 2



### Moderator

**Kyung Seop Lee**

*Keimyung University Dongsan Hospital*

#### EDUCATION

1979-1981 Premedical Keimyung University, Daegu, Korea  
1981-1985 Medical School, Keimyung University, Daegu, Korea  
1987-1989 Master Keimyung University, Daegu, Korea  
1995-1997 PhD Yeongnam University, Daegu, Korea

#### POST DOCTORAL TRAINING

2000-2001 Visiting Scholar University of Michigan, Ann Arbor, MI  
1993-2020.8.31 Head of Department, Professor Dongguk University  
2020.9.1-present President of Keimyung University Gyeongju Dongsan Hospital

#### PROFESSIONAL ORGANIZATION: MEMBERSHIPS

President, Korea Prostate Society (2011.3-2013.3)  
President, Korea Urology Ultrasound Society (2012.10-2015.5)  
President, Dongguk University Gyeongju Hospital (2009.2-2012.2)  
President, Korea Prostate Laser Association (2014.1-2016.1)  
Faculty, APPS  
Faculty, (Medical Policy Treatment Committee) Korea Urologic Association (2012-2013)  
Research & Planning, Korea Urologic Association (2008.11-2010.11)  
Korean Foundation for Cancer Research (2011-2016)  
Korea Urologic Association  
Korea Andrology Association  
Korea Urologic Oncology



### Moderator

**Robert G. Carlile**

*Department of Surgery, University of Hawaii*

1992 - 2020

Urology Practice at Queens Medical Center  
Honolulu, Hawaii

Clinical Assistant Professor of Surgery, John A Burns School of Medicine  
University of Hawaii, Honolulu, Hawaii

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Surgery and Urology Residency  
University of Utah School of Medicine, Salt Lake City, Utah

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## MP2-1 Changes of resistance indices after medication in benign prostatic hyperplasia: a prospective study

Kyung Seop Lee<sup>1</sup>, Dong Jin Park<sup>2</sup>, Se Yun Kwon<sup>2</sup>, Young Jin Seo<sup>2</sup>

<sup>1</sup>Department of Urology, Keimyung University School of Medicine, Daegu, South Korea

<sup>2</sup>Department of Urology, Dongguk University College of Medicine, Gyeongju, South Korea

**Objectives:** To determine the relationship between resistive indices (RIs) and changes in prostate size after medical treatment in patients with benign prostatic hyperplasia (BPH).

**Materials and Methods:** A total of 63 patients with BPH were included in the study. All patients were treated with  $\alpha$ 1-adrenergic blockers and 5 $\alpha$ -reductase inhibitors (5ARIs), RIs of the urethral artery, and left and right capsular arteries. These variables were assessed at baseline and after 3- and 6 months of treatment.

**Results:** Mean RI of the urethral artery, left capsular artery, and right capsular artery decreased after 3- and 6 months of treatment ( $p = 0.011$ ,  $p = 0.015$ ,  $p < 0.001$ , respectively).

**Conclusion:** In patients with BPH,  $\alpha$ 1-adrenergic blocker and 5ARI medications for 3- and 6 months significantly reduced the RI of the urethral artery and both capsular arteries. Larger scale, prospective studies are needed to confirm the relationship between TPV and RI reductions.

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## MP2-2 The Association between Human Gut Microbiota and Benign Prostatic Hyperplasia

Kentarō Takezawa<sup>1</sup>, Kazutoshi Fujita<sup>2</sup>, Koji Hatano<sup>1</sup>, Go Tsujimura<sup>1</sup>, Takahiro Imanaka<sup>1</sup>, Sohei Kuribayashi<sup>1</sup>, Koichi Okada<sup>1</sup>, Norichika Ueda<sup>1</sup>, Shinichiro Fukuhara<sup>1</sup>, Norio Nonomura<sup>1</sup>

<sup>1</sup>Department of Urology, Osaka University

<sup>2</sup>Department of Urology, Kindai University

**Objectives**

The pathophysiology of BPH is unknown. We hypothesized that the gut microbiota is involved in BPH and analyzed the association between gut microbiota and prostate volume.

**Methods**

A total of 128 patients who underwent prostate biopsy were included. Patients with a prostate volume  $\geq 30$  mL were defined as the prostate enlargement (PE) group and those with a prostate volume  $< 30$  mL as the non-PE group. Gut microbiota was analyzed by 16S rRNA metagenomic analysis of rectal swab and compared between the two groups.

**Results**

The PE group included 66 patients and the non-PE group included 62 patients. LEfSe analysis showed a higher proportion of Firmicutes and Actinobacteria in the PE group and a higher proportion of Bacteroidetes in the non-PE group. We focused on the Firmicutes/Bacteroidetes (F/B) ratio, which has been reported to be associated with various diseases. The F/B ratio was significantly higher in the PE group.

**Conclusion**

The F/B ratio of the gut microbiota is associated with BPH.

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## MP2-3 PSA doubling time predicts the efficiency of site-directed therapy for non-metastatic or oligometastatic CRPC

Takeo Kawai<sup>1,2</sup>, Keina Nozaki<sup>3</sup>, Satoru Taguchi<sup>1</sup>, Yoshiyuki Akiyama<sup>1</sup>, Yuta Yamada<sup>1</sup>, Yusuke Sato<sup>1</sup>, Daisuke Yamada<sup>1</sup>, Hideomi Yamashita<sup>4</sup>, Tohru Nakagawa<sup>2</sup>, Haruki Kume<sup>1</sup>

<sup>1</sup>Department of Urology, Graduate School of Medicine, The University of Tokyo

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<sup>3</sup>Department of Urology, Center Hospital of National Center for Global Health and Medicine

<sup>4</sup>Department of Radiology, Graduate School of Medicine, The University of Tokyo

**Background:** We investigated the efficiency and related clinical factors of site-directed therapy for non-metastatic or oligometastatic CRPC.

**Methods:** We reviewed 59 patients with non-metastatic or oligometastatic CRPC who underwent site-directed therapy targeting primary prostate lesions or metastatic lesions between April 2014 and March 2022. We evaluated the associations between clinical variables with PSA response rate, progression-free survival (PFS), and time to next treatment (TTNT).

**Results:** PSA response rate of  $>50\%$  was observed in 66% of patients. The median PFS and TTNT were 8.0 months and 9.9 months, respectively. Multivariate analyses revealed that PSA doubling time of 6 months or longer was an independent factor to predict favorable PSA response rate, PFS, and TTNT ( $P = 0.024$ ,  $0.025$ , and  $0.015$ , respectively).

**Conclusions:** PSA doubling time may be a key factor to predict the efficiency of site-directed therapy for non-metastatic or oligometastatic CRPC.

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## MP2-4 Switching to darolutamide for M0 CRPC resistant to enzalutamide or apalutamide

Saizo Fujimoto<sup>1</sup>, Kazutoshi Fujita<sup>1</sup>, Mitsuhisa Nishimoto<sup>1</sup>, Ken Kuwahara<sup>1</sup>, Mamoru Hamaguchi<sup>2</sup>, Shogo Adomi<sup>1</sup>, Takafumi Minami<sup>1</sup>, Masahiro Nozawa<sup>1</sup>, Kazuhiro Yoshimura<sup>1</sup>, Hirotsugu Uemura<sup>1</sup>

<sup>1</sup>Department of Urology, Kindai University Faculty of Medicine, Osakasayama, Osaka, Japan

<sup>2</sup>Department of Urology, Mimihara General Hospital, Sakai, Osaka, Japan

**Background/Objectives**

Enzalutamide, apalutamide, and darolutamide are recommended for patients with non-metastatic castration-resistant prostate cancer (M0CRPC). However, no standard treatment

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after 1st line therapy for M0CRPC. Darolutamide has a distinct chemical structure to other non-steroidal antiandrogens and may avoid cross resistance.

#### Methods

We retrospectively evaluated the efficacy of switching to darolutamide in patients with M0CRPC. We included nine M0CRPC patients who experienced biochemical progression on enzalutamide or apalutamide and were switched over to darolutamide.

#### Results

Five patients (55.5%) had a PSA response >50% decline after starting darolutamide. Median progression-free survival was six months. There were no significant differences in the patients' characteristics between responders and non-responders.

#### Conclusions

Switching to darolutamide may be effective for M0CRPC resistant to enzalutamide or apalutamide.

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### **MP2-5 Efficacy and Safety of Enzalutamide and Apalutamide in the Treatment of Patients with nmCRPC: A retrospective analysis**

*Shuhei Hara, Keiichiro Mori, Wataru Fukuokaya, Kosuke Iwatani, Fumihiko Urabe, Takafumi Yanagisawa, Kojiro Tashiro, Shunsuke Tsuzuki, Tatsuya Shimomura, Takahiro Kimura*

*Department of Urology, The Jikei University School of Medicine*

Objective: Phase III clinical trials demonstrated the efficacy of enzalutamide and apalutamide in nmCRPC. While these drugs are shown to vary in their adverse event (AE) profiles, they remain yet to be evaluated for differences in their efficacy profile. Thus, a retrospective study was conducted to evaluate their efficacy in nmCRPC.

Methods: This study evaluated a total of 120 nmCRPC patients treated with enzalutamide (n=82) or apalutamide (n=28) in the first line setting at our facilities between May 2014 and September 2021, with the endpoints defined as oncological outcomes and AEs.

Results: Maximum PSA response of >50% and >90% was not significantly different between the groups. No significant difference was shown in The median PSA-PFS, CSS and OS between the groups. The most common AE was fatigue in the enzalutamide group and skin rash in the apalutamide group.

Conclusion: These drugs were shown to exhibit comparable oncological outcomes but quite different AE profiles.

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### **MP2-6 How I recruit the suitable nmCRPC patients for taking insurance-reimbursed Darolutamide in Taiwan**

**Kuan-Chou Chen**<sup>1,2</sup>

<sup>1</sup>Department of Urology, Shuang Ho Hospital, Taipei Medical University

<sup>2</sup>Graduate Institute of Clinical Medicine, College of Medicine, Taipei Medical University

Background: Darolutamide is covered by Taiwan national health insurance when used in the high risk nmCRPC patients. Follow the results of ARAMIS trial, The national criteria for this high risk nmCRPC including:1.PSA doubling time≤10 months 2.Undetectable testosterone level 3.Negative images (both CT and bone scan) finding of metastatic disease 4.ECOG≤1.

Objectives: 2 group of patients will be eligible for these criteria. The first group is the standard high risk nmCRPC cohort with 1.Metastatic HSPC with initial Gleason score≥8 and 2.After ADT, HSPC shifts to nmCRPC with PSA doubling time≤10 months. Another one is the converting high risk nmCRPC cohort with 1.Metastatic HSPC with initial Gleason score≤3+4 and 2.The HSPC can be controlled by ADT for several years, yet the duration of stable PSA getting shorter post consecutively variant ADT regimens while PSA doubling time≤10 months eventually.

Conclusions: We will present our real-world experiences for patient recruitment.

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### **MP2-7 Cisplatin and Etoposide for treatment-related Neuroendocrine Prostate Cancer: avorable early Response with short Duration**

*Yuto Tsubonuma<sup>1</sup>, Tomohisa Takaba<sup>1</sup>, Akinori Minato<sup>1</sup>, Syuki Watanabe<sup>1</sup>, Ikko Tomisaki<sup>1</sup>, Michikazu Terado<sup>2</sup>, Naohiro Fujimoto<sup>1</sup>*

<sup>1</sup>Department of Urology, University of Occupational and Environmental Health

<sup>2</sup>Department of Urology, Munakata suikoukai general hospital

Objectives: To evaluate the treatment outcomes of the combination therapy with cisplatin and etoposide (PE) for metastatic treatment-related neuroendocrine prostate cancer (t-NEPC).

Methods: We reviewed treatment outcome data of patients with histologically proven metastatic t-NEPC who underwent PE (cisplatin 80mg/m<sup>2</sup>, day1, etoposide 80mg/m<sup>2</sup>, day1-3, q4w).

Results: We identified 14 patients between 2006 and 2022. Median cycle of PE was 3 (range 1-7). CR and PR were observed in one (7.1%) and 9 patients (64.2%), respectively. In responders, decline in serum NSE and tumor shrinkage were noted after a few cycles. Median progression-free and overall survival were 4.5 months and 7 months, respectively, with the median follow-up of 35 months. Adverse events (grade >2) were neutropenia (92.8%), anemia (42%), thrombocytopenia (28.5%), and febrile neutropenia (28.5%).

Conclusions: Metastatic t-NEPC showed favorable early response to EP.

However, duration of response was limited.

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## MP2-8 Biology and usefulness of [-2] proPSA as a prognostic marker in CRPC patients

Yoshiyuki Miyazawa<sup>1</sup>, Yoshitaka Sekine<sup>1</sup>, Seiji Arai<sup>1</sup>, Yusuke Tsuji<sup>1</sup>, Yuta Suto<sup>1</sup>, Yuji Fujizuka<sup>1</sup>, Hidekazu Koike<sup>1</sup>, Hiroshi Matsui<sup>1</sup>, Kazuto Ito<sup>2</sup>, Kazuhiro Suzuki<sup>1</sup>

<sup>1</sup> Gunma University Graduate School of Medicine, Department of Urology  
<sup>2</sup> Kurosawa Hospital, Department of Urology

Background; We retrospectively investigated the biology of p2PSA and its usefulness as a marker using CRPC patients. Methods; The study was performed using samples from a prospective study of CRPC patients treated with enzalutamide. We also examined the correlation between the measurement results of p2PSA and the prognosis of phi and CRPC patients calculated accordingly. This study was approved by the IRB of Gunma University Hospital (IRB 2021-092, 1983).

Results; In the OS study, the median OS of the PSA low group was NYR(not yet reached), the high group was 26.8 months, the p2PSA low group was NYR, the high group was 26.8 months, the phi low group was NYR, and the high group was 26.8 months. The OS was significantly better in the low- value group for each parameter(p-values 0.024, 0.034, 0.018, respectively). Conclusions;The biology of p2 PSA in CRPC patients has been clarified. Although we couldn't find a clear advantage over PSA.

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## MP2-9 The Effects of Personal and Family Cancer History on the Diagnosis of Prostate Cancer in a Multi-Institutional Prostate Biopsy Registry

Jeong Woo Yoo<sup>1</sup>, Kwang Suk Lee<sup>1</sup>, Eu Chang Hwang<sup>2</sup>, Jae Hung Jung<sup>3</sup>, Sang Hyub Lee<sup>4</sup>, Hak min Lee<sup>5</sup>, Woong Kyu Han<sup>6</sup>, Byung Ha Chung<sup>1</sup>

<sup>1</sup> Department of Urology, Gangnam Severance hospital, Yonsei University College of Medicine, Seoul, Korea

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<sup>3</sup> Department of Urology, Yonsei University Wonju College of Medicine, Wonju, Korea

<sup>4</sup> Department of Urology, Kyung Hee University Medical Center, School of Medicine, Kyung Hee University, Seoul, Korea

<sup>5</sup> Department of Urology, Seoul National University Bundang Hospital, Seongnam, Korea

<sup>6</sup> Department of Urology, Shinchon Severance hospital, Yonsei University College of Medicine, Seoul, Korea

Objectives: We estimate the risk of the diagnosis of prostate cancer (PCa) based on a cancer history.

Methods: This is a multicenter study of men undergoing initial prostate biopsy. All sites collected detailed data on the number of affected relatives, first-degree relatives with personal and family cancer history. Separate models were fit for cancer history definitions, including first-degree PCa and breast cancer family histories and the presence of cancer types with adenocarcinoma in family.

Results: Of 17,534 patients, a first-degree PCa family his-

tory was available for 283 men. Adjusted odds of the diagnosis of PCa was 1.93 times greater in brother with PCa. For predicting the diagnosis of PCa, significant differences in AUCs were showed in the presence of cancer types with the main histologic type of adenocarcinoma in family adding to conventional variables ( $p=0.019$ ).

Conclusions: This study proposed a rationale to evaluate the potency of familial cancers in men.

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## MP2-10 Withdrawn

# INDEX

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UP2	Clinical Utility of Confirmatory Transperineal Template-Guided Saturation Prostate Biopsy after TRUS-Bx on Treatment Outcome of Focal HIFU	Chung Un Lee	Sungkyunkwan University	Korea
UP3	MRI-TRUS Fusion Biopsies: 30 cases of primary experience	Hirofuka Kishi	Showa University	Japan
UP4	How to deal with PI-RADS category3 cases?	Eiji Matsubara	Showa University	Japan
UP5	Role of the Elastography Strain Ratio using Transrectal Ultrasonography in the Diagnosis of Clinically Significant Prostate Cancer	Jeong Woo Yoo	Yonsei University	Korea
UP6	Withdrawn			
UP7	the characteristics of patients with prostate specific antigen persistence after Robot Assisted Radical Prostatectomy	Motoki Yamagishi	Showa University	Japan
UP8	Robot-assisted laparoscopic radical prostatectomy (RARP) induction results and comparison with open radical prostatectomy (ORR)	Hideaki Shimoyama	Showa University	Japan
UP9	Clinical Analysis of Intensity modulated radiation therapy (IMRT) for localized prostate cancer at Showa University	Kazuhiko Oshinomi	Showa University	Japan
UP10	Periprocedural adverse events and distribution of the SpaceOAR hydrogel for radiotherapy for prostate cancer	Masashi Morita	Showa University	Japan

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## UP1 The Association of Anatomical Structural with Voiding Functions in Men with Benign Prostatic Hyperplasia/Lower Urinary Tract Symptoms

Jeong Woo Yoo, Kwang Suk Lee, Kyo Chul Koo, Byung Ha Chung

Department of Urology, Gangnam Severance hospital, Yonsei University College of Medicine, Seoul, Korea

**Objective:** We investigated the effects of prostatic urethral length (PUL), prostatic urethral angle (PUA), prostatic apex shape or intravesical prostatic protrusion (IPP) on voiding functions in men.

**Methods:** This observational study was based on data from 263 men without benign prostatic hyperplasia/lower urinary tract symptoms treatment. A multivariate analysis was performed to determine the variables affecting international prostate symptoms score (IPSS), max flow rate (Qmax) and voiding efficacy (postvoid residual volume to total bladder volume).

**Results:** Of 263 patients, decreasing PUA are increasing severity of voiding symptoms ( $p < 0.001$ ). Multivariable analysis reported that total IPSS was correlated with age, PUA and Qmax, which was negatively associated with IPP. Voiding efficacy was only related with PUL.

**Conclusion:** This study presented that individual anatomical stricture variations influenced the voiding functions in prostate volume.

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## UP2 Clinical Utility of Confirmatory Transperineal Template-Guided Saturation Prostate Biopsy after TRUS-Bx on Treatment Outcome of Focal HIFU

Chung Un Lee, Ji Hwan Lee, Jae Hoon Chung, Minyong Kang, Hwang Hyun Jeon, Byong Chang Jeong, Seong Il Seo, Seong Soo Jeon, Hyun Moo Lee, Wan Song

Department of Urology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

**Introduction:** We investigated the clinical utility of confirmatory transperineal template-guided saturation biopsy (TPB) after TRUS-Bx (TRB) on treatment outcome of focal HIFU.

**Methods:** The study included patients underwent focal HIFU for prostate cancer (PCa) between Oct 2019 and May 2021. All patients with suspicious for PCa received mpMRI and diagnostic biopsy was performed as 12 core TRB. For patients eligible for focal HIFU, confirmatory TPB was additionally performed. The change of treatment plan of focal HIFU was analyzed after confirmatory TPB.

**Results:** A total of 52 patients was analyzed. PCa was found on one side in 96.2% patients. When combined the results of TRB and TPB, PCa was confirmed on the contralateral side in 5 patients and on both side in 2 patients. The treatment

plan was changed in 13.5% patients from unilateral focal HIFU to bilateral focal HIFU.

**Conclusions:** Confirmatory TPB plays an important role to analyze the location and extent of PCa before focal HIFU.

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## UP3 MRI-TRUS Fusion Biopsies: 30 cases of primary experience

Hirohata Kishi<sup>1</sup>, Masashi Morita<sup>1</sup>, Shota Kikuchi<sup>1</sup>, Saori Nakamura<sup>1</sup>, Sho Okada<sup>1</sup>, Aya Hiramatsu<sup>1</sup>, Tetsuo Noguchi<sup>1</sup>, Yu Ogawa<sup>1</sup>, Takashi Fukagai<sup>2</sup>

<sup>1</sup>Showa University Koto Toyosu Hospital

<sup>2</sup>Showa University Hospital

**Background:**

The fusion of MRI with transrectal ultrasound allows that we can find clinically significant prostate cancers, which has already been reported and is expected to become more widespread.

We started to use Vari Seed ver. 8.02 for MRI-TRUS fusion biopsies and will report our primary experience.

**Materials and Methods:**

30 MRI-TRUS fusion biopsy cases are performed in our department from November 2018 to March 2022.

First, the T2-weighted images obtained during a previous mpMRI are merged with the real-time ones of the TRUS. Second, targeted biopsies in 3-6 locations and systematic biopsies in 12 locations were performed by a urologist.

**Results:**

MRI-TRUS fusion biopsy diagnosed 12 prostate cancer cases in 30 men, and their median age was 64 years, median PSA was 9.8 ng/mL, and median prostate volume was 29.2 mL.

In the 12 cases, 66.6% is higher than 3 of Gleason grade group (4+4 in one case, 4+3 in six cases, 3+4 in one case, and 3+3 in four cases), which is clinically significant cancer.

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## UP4 How to deal with PI-RADS category3 cases?

Eiji Matsubara<sup>1</sup>, Masahiro Kurokawa<sup>1</sup>, Satoshi Amano<sup>1</sup>, Shintarou Koizumi<sup>1</sup>, Ippei Kurokawa<sup>1</sup>, Katsuyuki Saitou<sup>1</sup>, Kouzou Fuji<sup>1</sup>, Keiichirou Hayashi<sup>2</sup>, Aya Hiramatsu<sup>3</sup>, Takashi Fukagai<sup>4</sup>

<sup>1</sup>Showa University Northern Yokohama Hospital

<sup>2</sup>Tsuzuki Hayashi Urology Clinic

<sup>3</sup>Showa University Koto Toyosu Hospital

<sup>4</sup>Showa University

**Purpose:** PI-RADS v2 is used as a basis for judging prostate biopsy indications. Consider whether category 3 cases should be biopsied.

**Patients and Methods:** From 2017 to 2021, 353 patients who underwent prostate biopsy at our department and were evaluated by PI-RADS v2 were extracted. Systematic 12 locations biopsy was performed and visual registration was

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added. We examined PSA level, positive rate, PSA density (PSAD), and clinically significant prostate cancer(csPCa). csPCa was defined as prostate cancer with a Gleason score of 7 or higher.

Results: Biopsy positive rate and csPCa rate (percentage of csPCa among biopsy positive cases) are shown. Overall, 64.9% and 79.4%, category 3: 30.9% and 56.0%, category 4: 69.7% and 78.2%, category 5: 93.8% and 90.5%.

Discussion: The positive rate was low in the group with PSAD of less than 0.18, and no csPCa was detected. It suggests that PSA density may be useful when considering biopsy indications for PI-RADS category 3 cases.

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## **UP5 Role of the Elastography Strain Ratio using Transrectal Ultrasonography in the Diagnosis of Clinically Significant Prostate Cancer**

*Jeong Woo Yoo, Kwang Suk Lee, Kyo Chul Koo, Byung Ha Chung*

*Department of Urology, Gangnam Severance hospital, Yonsei University College of Medicine, Seoul, Korea*

Objectives: The authors investigated the efficacy of elastography strain ratio (ESR) as predictors clinically significant prostate cancer (csPC) in targeted prostate biopsy.

Methods: A total of 257 patients who underwent magnetic resonance imaging fusion biopsy were enrolled. Before biopsy, we put regions of interest (zone A) in target lesion, and then another regions of interest (zone B) in levator ani muscle. ESR is measured as (zone A/zone B). Multivariable analyses were performed to predict csPC.

Results: Patients who were diagnosed of prostate cancer were 207 (80.5%) and number of positive prostate cancer target lesions were 206 (71.5%). For predicting csPC, the ESR  $\geq 6.8$  was significantly associated with in prostate cancer (+) group ( $p < 0.001$ ). The area under the curve (AUC) in conventional variables (Model 1) plus ESR was significantly higher than the AUC in Model 1 ( $p = 0.001$ ).

Conclusion: The study suggests a potential role of ESR in predicting csPC.

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## **UP6 Withdrawn**

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## **UP7 the characteristics of patients with prostate specific antigen persistence after Robot Assisted Radical Prostatectomy**

*Motoki Yamagishi, Yoojin Chung, Toshiki Mugita, Kota Nishimura, Yoshihiro Nakagami, Kazuhiko Oshinomi, Yoshiko Maeda, Jun Morita, Takeshi Shichijo, Takashi Fukagai*

*Showa University school of medicine, Department of Urology*

Robot Assisted Radical Prostatectomy(RARP) is a widely performed procedure for localized prostate cancer in Japan. All of our surgical total prostatectomies are performed by RARP.

In the past, we have performed RARP in 372 patients. Among them, there were 17 cases of Prostate Specific Antigen(PSA) Persistence after RARP without sufficient PSA reduction, although there were a certain number of patients with post-operative recurrence. The median iPSA was 12.0 (4.28-31.20), and postoperative pathology was Gleason-Score (GS) 9 in 2 cases, GS8 in 4 cases, GS7 in 10 cases, and unknown in 1 case. pTstage was pT2b; 2 EPE(+): 8, RM (+): 10, ly(+): 5, v(+): 6, pn(+): 15, sv(+): 4.

In Japan, PSA blood sampling and imaging diagnosis are used to determine recurrence of prostate cancer after surgery. In Japan, we defined recurrence on the date of surgery as a case in which the PSA did not fall below 0.2 ng/ml. The characteristics of this group will be analyzed and reported, including a discussion.

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## **UP8 Robot-assisted laparoscopic radical prostatectomy (RARP) induction results and comparison with open radical orostatectomy (ORR)**

*Hideaki Shimoyama<sup>1</sup>, Haruaki Sasaki<sup>1</sup>, Yuta Ogushi<sup>1</sup>, Ayana Niikura<sup>1</sup>, Yuuki Ichimura<sup>1</sup>, Hiroo Sugishita<sup>1</sup>, Satoru Tanifuji<sup>1</sup>, Yuuichiro Imamura<sup>1</sup>, Michiya Ota<sup>1</sup>, Takashi Fukagai<sup>2</sup>*

<sup>1</sup>Showa University Fujigaoka Hospital  
<sup>2</sup>Showa University

We reported the results of surgery early in the introduction of RARP and compared it with ORR. We report 16 cases in the early stages of RARP that have been performed at our hospital. We perform open radical prostatectomy and lymph node dissection (the basic surgical procedure is only for obturator lymph nodes, and external, internal, common iliac lymph node dissection are added depending on the case) mainly for lymph node metastasis cases and high-risk cases. RARP patients performed significantly better in terms of blood loss, length of hospital stay, and vesicourethral anastomosis suture failure. There are currently few significant differences in operative time, surgical margin positivity, postoperative urinary continence, and postoperative complications, and it is necessary to continued observation.

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## **UP9 Clinical Analysis of Intensity modulated radiation therapy (IMRT) for localized prostate cancer at Showa University**

*Kazuhiko Oshinomi, Takashi Fukagai, Anju Kawamura, Yoojin Chung, Yoshiki Tsunokawa, Jin Yamatoya, Motoki Yamagishi, Yoshihiro Nakagami, Yoshiko Maeda, Jun Morita, Takeshi Shichijo*  
*Showa University School of Medicine, Department of Urology*

**Objective:** In 2011, our hospital switched from conventional external irradiation to IMRT. We clinically examined cases of IMRT for localized prostate cancer in our hospital.

**Methods:** We retrospectively evaluated the outcome and adverse events of IMRT performed for localized prostate cancer in our hospital.

**Results:** A total of 188 patients who underwent IMRT between November 2011 and December 2021 were included. Median age at initiation of irradiation was 73 years, and PSA at diagnosis (median) was 11.8 ng/ml. The NCCN risk groups were very high/high/intermediate/low 41/70/61/16. Median follow-up was 41 months, with 10 biochemical recurrences and 2 prostate cancer deaths. The 5-year PSA progression-free survival was 80.4% only in the very high-risk group, but 95-100% in the other groups. Grade 3 rectal bleeding was observed in 2 cases (1%).

**Conclusion:** The biochemical recurrence-free rate was good in localized cancer, but the recurrence rate was high in very high-risk group.

some level of asymmetry, with 5 having far lateral distribution.

**Conclusions:** Although the placement of the spacer is simple, serious procedure-related adverse events are reported in the FDA MAUDE database. However, no severe adverse event were seen in this study.

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## **UP10 Periprocedural adverse events and distribution of the SpaceOAR hydrogel for radiotherapy for prostate cancer**

*Masashi Morita<sup>1</sup>, Hirotaka Kishi<sup>1</sup>, Shota Kikuchi<sup>1</sup>, Saori Nakamura<sup>1</sup>, Sho Okada<sup>1</sup>, Aya Hiramatsu<sup>1</sup>, Tetsuo Noguchi<sup>1</sup>, Yu Ogawa<sup>1</sup>, Takashi Fukagai<sup>2</sup>, John Lederer<sup>3</sup>*

<sup>1</sup>Department of Urology, Showa University Koto Toyosu Hospital

<sup>2</sup>Department of Urology, Showa University School of Medicine

<sup>3</sup>Department of Surgery, University of Hawaii at Manoa

**PURPOSE:** We investigated the frequency of perioperative adverse events of SpaceOAR procedure, and also evaluated the gel symmetry.

**MATERIALS and METHODS:** Four hundred and one patients received placement of SpaceOAR. We investigated adverse events associated with the procedure in the perioperative period. Physical findings were examined, and MRI was used to evaluate the symmetry of the gel.

**Results:** Eight patients experienced perineal pain and discomfort. Urinary retention was observed in 3 patients. Gel contamination in the prostatic capsule and seminal vesicle was observed in 1 case each, but there were no symptoms. No rectal wall placement was observed. Gel was symmetrically placed for 312 patients, remaining 89 patients had



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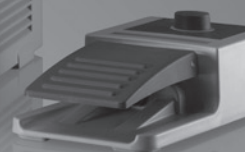
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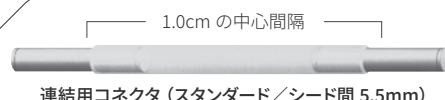
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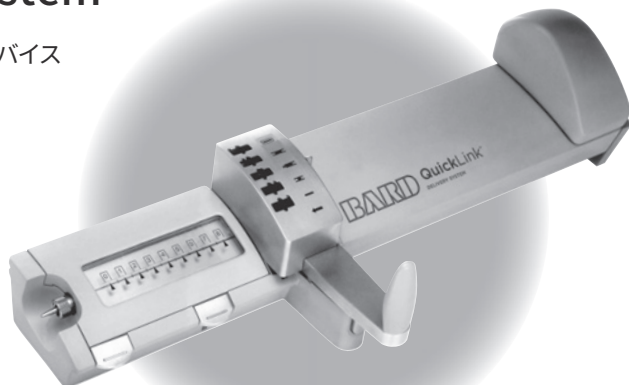


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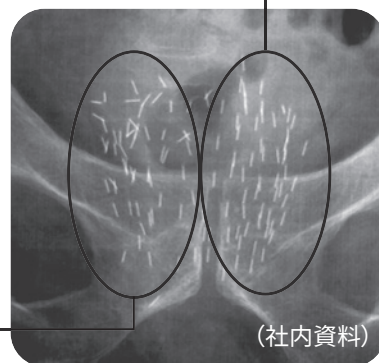
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