

Meet The Professor

Optimizing the Management of Metastatic Castration-Resistant Prostate Cancer

A Oliver Sartor, MD

Laborde Professor for Cancer Research
Medical Director, Tulane Cancer Center
Assistant Dean for Oncology
Tulane Medical School
New Orleans, Louisiana

Commercial Support

This activity is supported by educational grants from AstraZeneca Pharmaceuticals LP, Exelixis Inc, Merck, Novartis Pharmaceuticals Corporation on behalf of Advanced Accelerator Applications, and Sanofi Genzyme.

Dr Love — Disclosures

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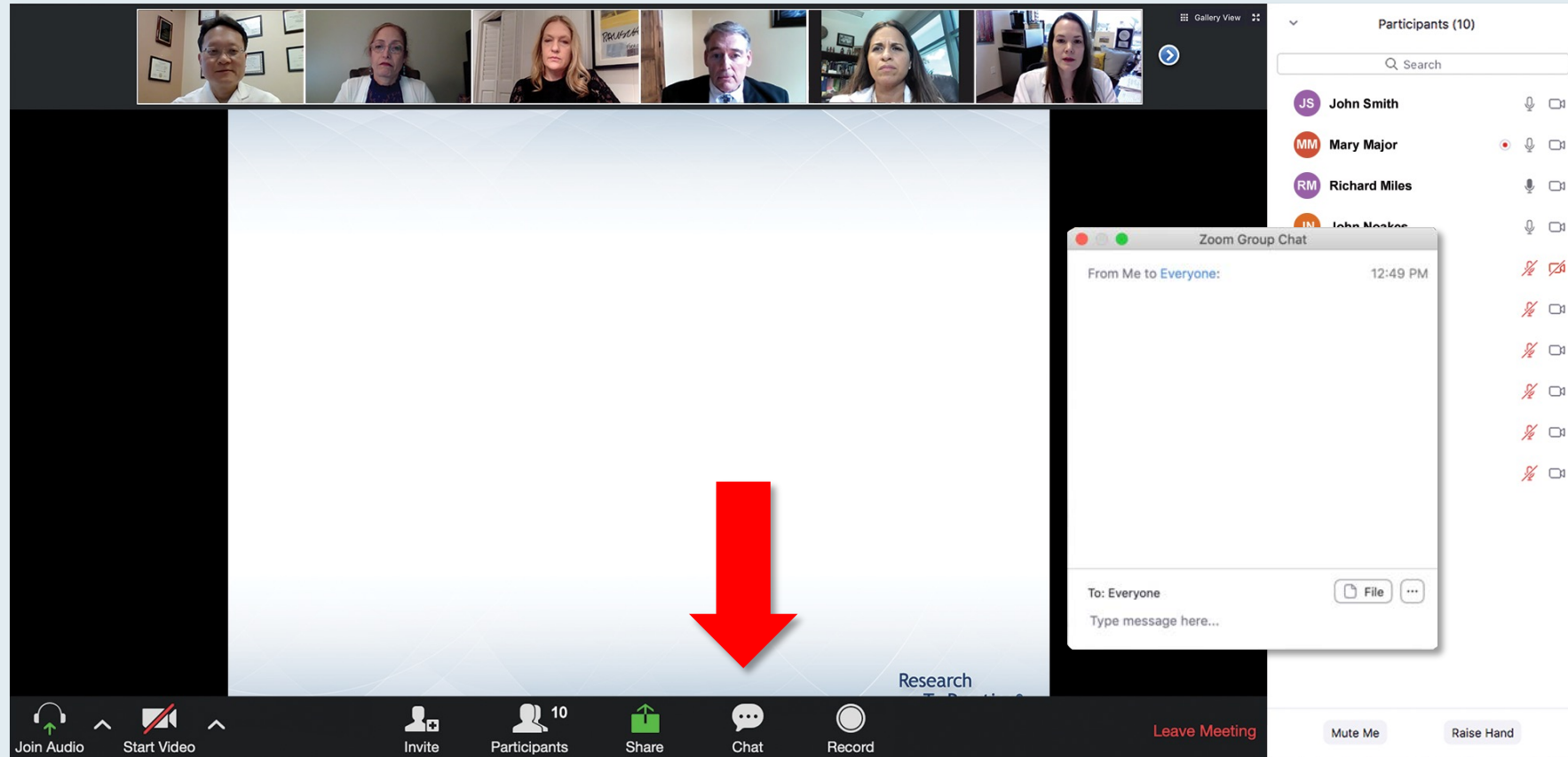
Research To Practice CME Planning Committee Members, Staff and Reviewers

Planners, scientific staff and independent reviewers for Research To Practice have no relevant conflicts of interest to disclose.

Dr Sartor— Disclosures

Consulting Agreements	Advanced Accelerator Applications, Astellas, AstraZeneca Pharmaceuticals LP, Bavarian Nordic, Bayer HealthCare Pharmaceuticals, Blue Earth Diagnostics, Bristol-Myers Squibb Company, Clarity Pharmaceuticals, Clovis Oncology, Constellation Pharmaceuticals, Dendreon Pharmaceuticals Inc, EMD Serono Inc, Fusion Pharmaceuticals, ITM Isotopen Technologien München AG, Janssen Biotech Inc, Merck, Myovant Sciences, Myriad Genetic Laboratories Inc, Noria Therapeutics Inc, Novartis, Noxopharm, Pfizer Inc, Point Biopharma Inc, Progenics Pharmaceuticals Inc, Sanofi Genzyme, Telix Pharmaceuticals, TeneoBio, Theragnostics
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Data and Safety Monitoring Board/Committee	AstraZeneca Pharmaceuticals LP, Janssen Biotech Inc, Pfizer Inc, Myovant Sciences

We Encourage Clinicians in Practice to Submit Questions



Feel free to submit questions now before the program begins and throughout the program.

Familiarizing Yourself with the Zoom Interface

Expand chat submission box

The screenshot shows a Zoom meeting interface. At the top, there are video thumbnails for participants: RTP Coordinat..., Kirsten Miller, RTP Mike Rivera, and Lisa Suarez. A 'Recording...' indicator is visible on the left. The main content is a slide titled 'Meet The Professor Program Steering Committee' with six members listed:

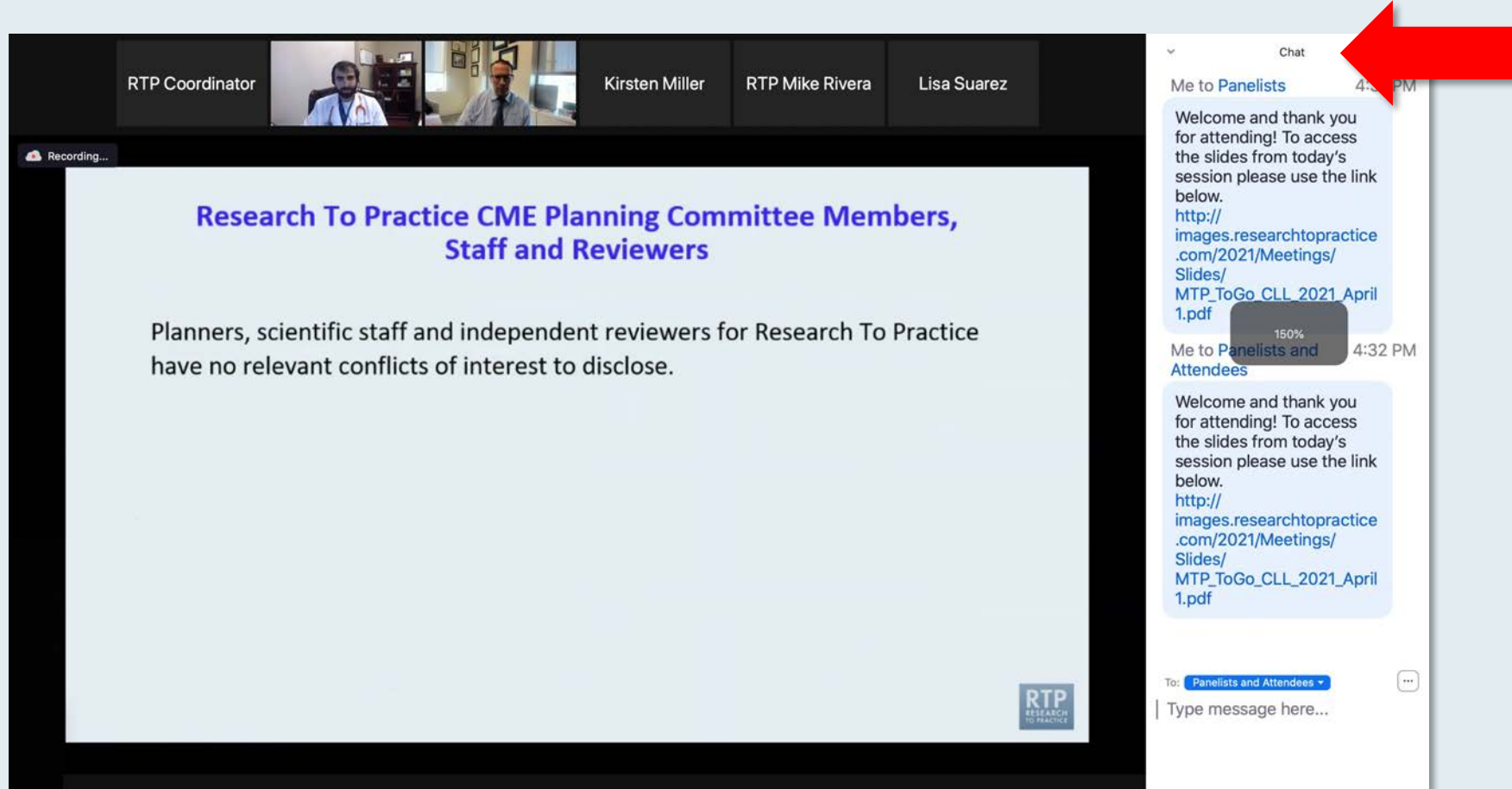
- John N Allan, MD**
Assistant Professor of Medicine
Weill Cornell Medicine
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- Ian W Flinn, MD, PhD**
Director of Lymphoma Research Program
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Tennessee Oncology
Nashville, Tennessee
- Steven Coutre, MD**
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Director of Clinical Research
Division of Lymphoma
Dana-Farber Cancer Institute
Boston, Massachusetts
- Brian T Hill, MD, PhD**
Director, Lymphoid Malignancy Program
Cleveland Clinic Taussig Cancer Institute
Cleveland, Ohio

The chat window on the right is expanded. It shows two messages from 'Me to Panelists' and 'Me to Panelists and Attendees' at 4:31 PM and 4:32 PM respectively. Each message contains a welcome message and a link to a PDF slide: http://images.researchtopractice.com/2021/Meetings/Slides/MTP_ToGo_CLL_2021_April1.pdf. The chat window is expanded by dragging the white line above the submission box up. A red arrow points to this white line.

Drag the white line above the submission box up to create more space for your message.

Familiarizing Yourself with the Zoom Interface

Increase chat font size



The screenshot displays a Zoom meeting interface. At the top, there are video thumbnails for participants: RTP Coordinator, Kirsten Miller, RTP Mike Rivera, and Lisa Suarez. The main content area shows a slide titled "Research To Practice CME Planning Committee Members, Staff and Reviewers" with the text: "Planners, scientific staff and independent reviewers for Research To Practice have no relevant conflicts of interest to disclose." A "Recording..." indicator is visible in the top left of the slide area. On the right side, the chat window is open, showing a message from "Me to Panelists" at 4:32 PM. The message content is: "Welcome and thank you for attending! To access the slides from today's session please use the link below. http://images.researchtopractice.com/2021/Meetings/Slides/MTP_ToGo_CLL_2021_April 1.pdf". A red arrow points to the chat window's font size adjustment icon (a plus sign in a circle) located in the top right corner of the chat area. A "150%" font size indicator is visible over the chat message.

**Press Command (for Mac) or Control (for PC) and the + symbol.
You may do this as many times as you need for readability.**

ONCOLOGY TODAY

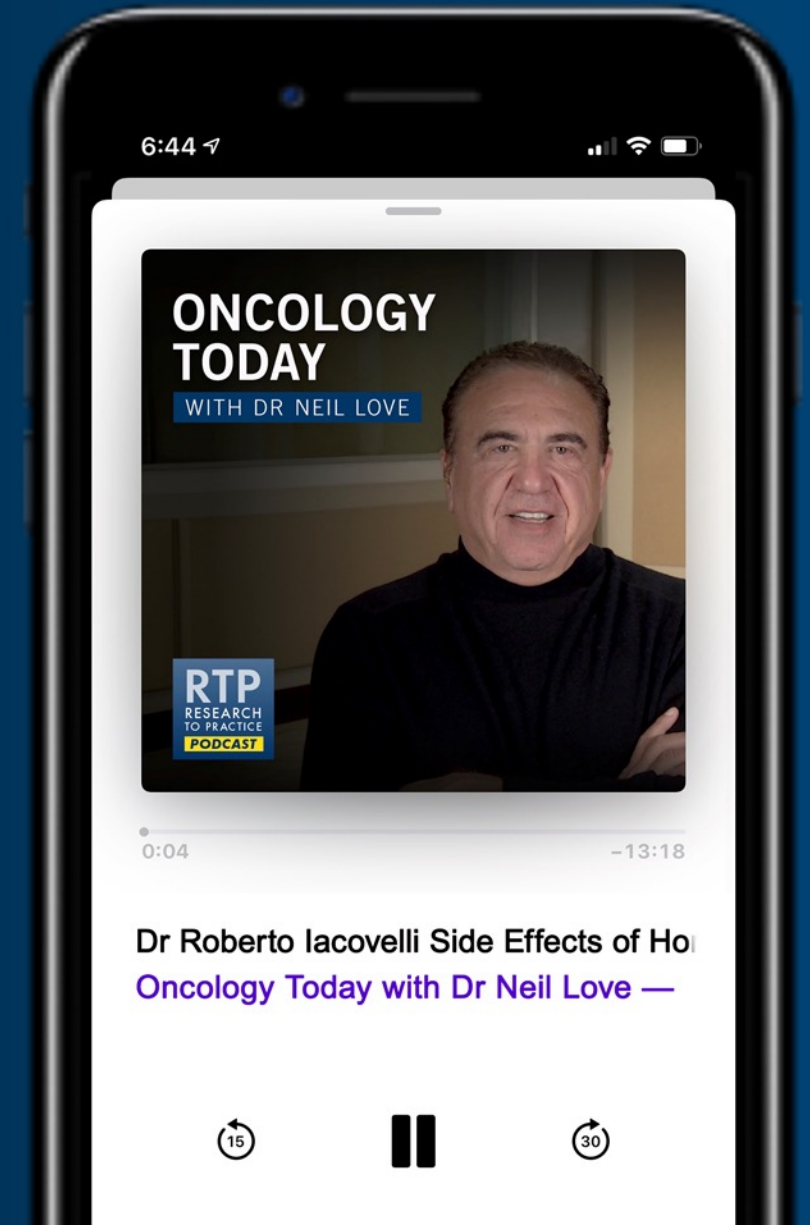
WITH DR NEIL LOVE

Side Effects of Hormonal Therapy in Prostate Cancer



DR ROBERTO IACOVELLI

FONDAZIONE POLICLINICO
UNIVERSITARIO A GEMELLI



Meet The Professor

Optimizing the Management of Acute Myeloid Leukemia

Wednesday, December 1, 2021

5:00 PM – 6:00 PM ET

Faculty

Andrew H Wei, MBBS, PhD

Moderator

Neil Love, MD

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with HER2-Positive Breast Cancer

**Thursday, December 2, 2021
5:00 PM – 6:00 PM ET**

Faculty

Hope S Rugo, MD

Moderator

Neil Love, MD

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of ER-Positive Breast Cancer

**Tuesday, December 7, 2021
8:00 PM – 9:45 PM ET**

Faculty

**Aditya Bardia, MD, MPH Joyce O'Shaughnessy, MD
Kevin Kalinsky, MD, MS**

Moderator

Erika Hamilton, MD

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of HER2-Positive Breast Cancer

**Wednesday, December 8, 2021
8:00 PM – 10:00 PM ET**

Faculty

Carey K Anders, MD

Sara Hurvitz, MD

Virginia F Borges, MD, MMSc

Ian E Krop, MD, PhD

Moderator

Lisa Carey, MD

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of Triple-Negative Breast Cancer

**Thursday, December 9, 2021
8:00 PM – 9:45 PM ET**

Faculty

**Rita Nanda, MD
Peter Schmid, FRCP, MD, PhD
Melinda Telli, MD**

Moderator

Hope S Rugo, MD

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of Chronic Lymphocytic Leukemia

**Friday, December 10, 2021
7:30 AM – 9:30 AM ET**

Faculty

Nitin Jain, MD

Anthony R Mato, MD, MSCE

John M Pagel, MD, PhD

Jennifer Woyach, MD

Moderator

John N Allan, MD

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of Hodgkin and Non-Hodgkin Lymphoma

**Friday, December 10, 2021
11:30 AM – 1:30 PM ET**

Faculty

**Jeremy Abramson, MD
Martin Dreyling, MD, PhD**

**Loretta J Nastoupil, MD
Gilles Salles, MD, PhD**

Moderator

Ann S LaCasce, MD, MMSc

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of Multiple Myeloma

**Friday, December 10, 2021
3:15 PM – 5:15 PM ET**

Faculty

Larry D Anderson Jr, MD, PhD

Morie A Gertz, MD, MACP

Irene M Ghobrial, MD

Peter Voorhees, MD

Moderator

Robert Z Orlowski, MD, PhD

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of Acute Myeloid Leukemia and Myelodysplastic Syndromes

**Friday, December 10, 2021
7:00 PM – 9:00 PM ET**

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**Alice S Mims, MD, MSCR
Alexander Perl, MD**

**Richard M Stone, MD
Geoffrey L Uy, MD**

Moderator

Harry Paul Erba, MD, PhD

Meet The Professor

Optimizing the Management of Acute Myeloid Leukemia

Tuesday, December 14, 2021

5:00 PM – 6:00 PM ET

Faculty

Naval Daver, MD

Moderator

Neil Love, MD

Thank you for joining us!

CME and MOC credit information will be emailed to each participant within 5 business days.

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Meet The Professor Program Participating Faculty



Andrew J Armstrong, MD, ScM

Professor of Medicine, Surgery, Pharmacology and
Cancer Biology

Director of Research

Duke Cancer Institute Center for Prostate and
Urologic Cancers

Divisions of Medical Oncology and Urology

Duke University

Durham, North Carolina



Simon Chowdhury, MD, PhD

Consultant Medical Oncologist
London, United Kingdom



Alan H Bryce, MD

Chair, Division of Hematology and Medical Oncology

Chair, Genitourinary Disease Group

Mayo Clinic

Phoenix, Arizona



Prof Karim Fizazi, MD, PhD

Head of Service and Full Professor

Institut Gustave Roussy

University of Paris Saclay

Villejuif, France

Meet The Professor Program Participating Faculty



Alicia K Morgans, MD, MPH
Genitourinary Medical Oncologist
Medical Director, Survivorship Program
Dana-Farber Cancer Institute
Boston, Massachusetts



Moderator
Neil Love, MD
Research To Practice
Miami, Florida



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Feel free to submit questions now before the program begins and throughout the program.

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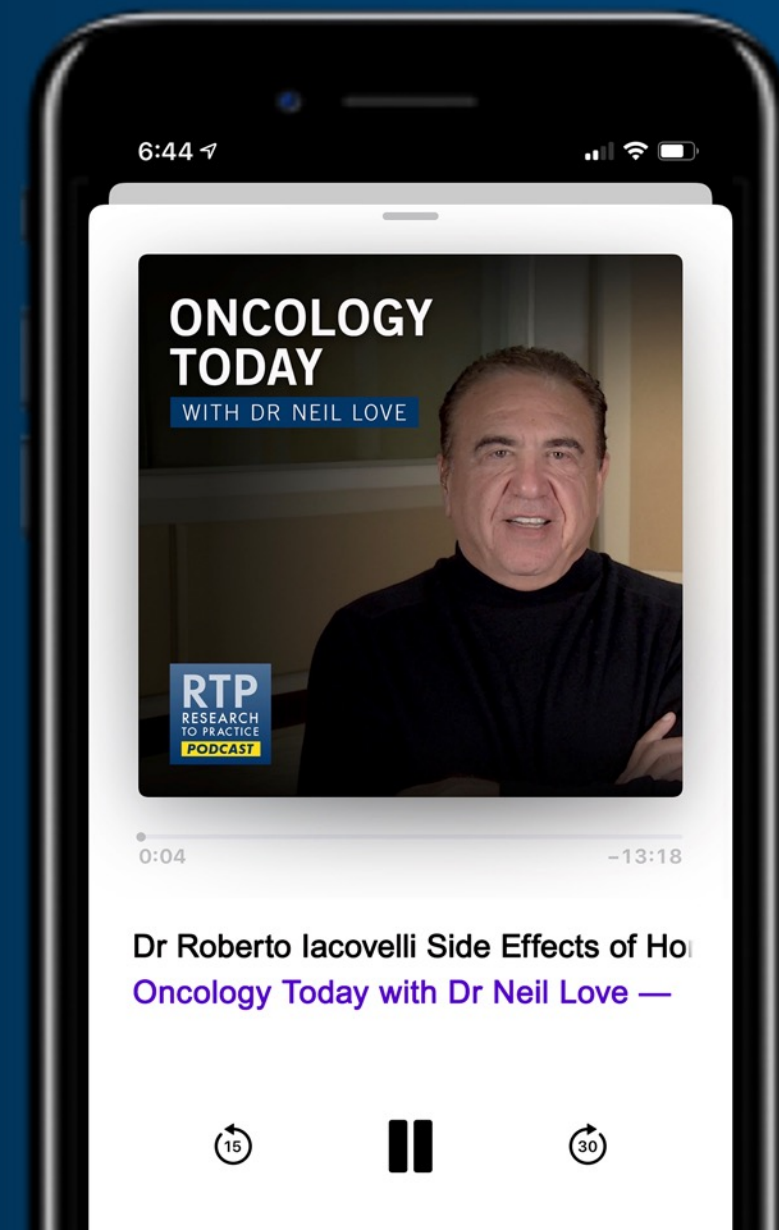
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Spencer Henick Bachow, MD
Lynn Cancer Institute
FAU Schmidt College of Medicine
Boca Raton, Florida



David S Morris, MD
Advanced Therapeutics Center
Urology Associates
Nashville, Tennessee



Sulfi Ibrahim, MD
Reid Health
Richmond, Indiana



Syed F Zafar, MD
Florida Cancer Specialists and
Research Institute
Lee Health
Fort Myers, Florida



Nataliya Mar, MD
University of California, Irvine
Irvine, California

A 65-year-old man with MSS prostate cancer metastatic to the bone and a germline BRCA2 mutation who is receiving abiraterone/dexamethasone for hormone-sensitive metastatic disease develops new high-volume symptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Olaparib



Prof Fizazi

Olaparib



Dr Bryce

Olaparib



Dr Morgans

Radium-223



Prof Chowdhury

Olaparib



Dr Sartor

Olaparib

Meet The Professor with Dr Sartor

MODULE 1: Overview of Metastatic Castration-Resistant Prostate Cancer (mCRPC)

- Dr Mar: A 75-year-old man with mCRPC

MODULE 2: BRCA/HRD-Negative mCRPC

- Dr Bachow: An 81-year-old man with mCRPC – LOH and AR-V7 splice site mutation
- Dr Ibrahim: A 74-year-old man with mCRPC – Enrolled on the VISION trial
- Key Relevant Data Sets

MODULE 3: BRCA/HRD-Positive mCRPC

- Dr Zafar: A 68-year-old man with metastatic hormone-sensitive prostate cancer and an ARID1A mutation
- Dr Morris: A 72-year-old man with mCRPC and a germline RAD51c mutation
- Dr Bachow: A 62-year-old man with mCRPC and a somatic BRCA1 mutation – High TMB
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MODULE 4: Other Novel Agents and Strategies Under Investigation

MODULE 5 Journal Club with Dr Sartor

MODULE 6: Faculty Survey

MODULE 7: Appendix

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Case Presentation – Dr Mar: A 75-year-old man with mCRPC



Dr Nataliya Mar

- Progressively worsening LUTS x 6 months, with PSA 1035 ng/mL
- CT CAP and bone scan: Blastic bone lesions and pulmonary nodules – biopsy-proven prostate cancer
- ADT and apalutamide, with PSA response
- Eighteen months later: PSA rising, pelvic pain
- Restaging imaging: Progression of bony disease

Questions

- What would be your next step in treatment?
- Besides BRCA1 and BRCA2, how do you feel about using PARP inhibitors in the other mutations, like, for example, the ATM mutation and other ones in a DDR pathway?
- What is the risk of developing MDS or AML in patients receiving PARP inhibitors?

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Case Presentation – Dr Bachow: An 81-year-old man with mCRPC – LOH and AR-V7 splice site mutation



Dr Spencer Bachow

- PMH: CAD, CABG, TN
- 8/2020: De novo osseous metastatic hormone-sensitive prostate cancer
 - TURP, with biopsies: Gleason 5 + 5 = 10, PSA 2.7 ng/dL prostate cancer
- EBRT → Docetaxel + ADT
 - 2 months after therapy, PSA increased to 6 ng/dL
 - NGS: LOH 21%, AR-V7 splice site mutation

Question

- Would you ever consider using abiraterone, enzalutamide, or apalutamide in a patient with mCRPC that harbors an AR-V7 splice site mutation?

Case Presentation – Dr Ibrahim: A 74-year-old man with mCRPC – Enrolled on the VISION trial



Dr Sulfi Ibrahim

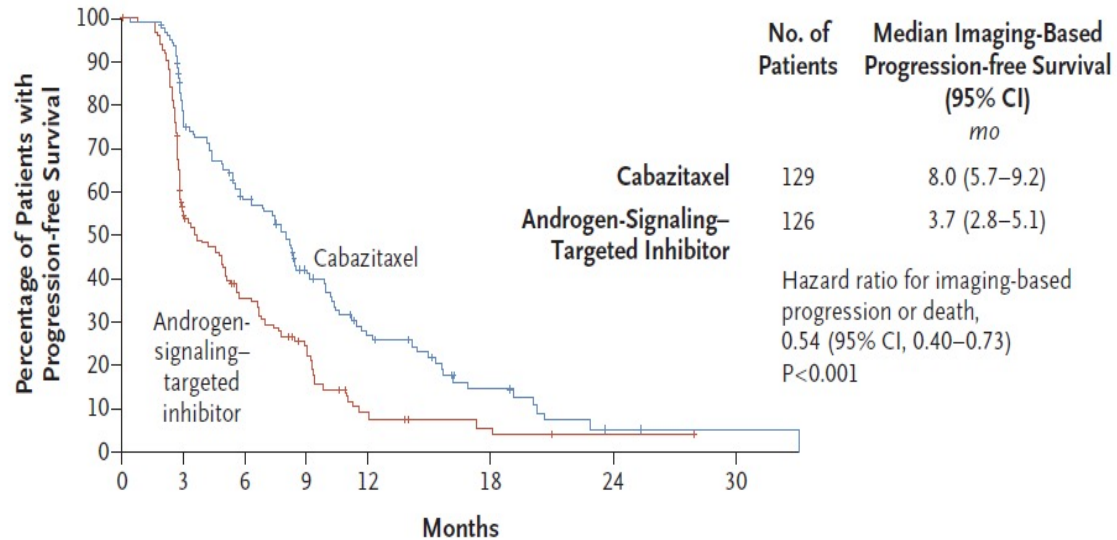
- Previous treatments: Leuprolide, abiraterone, enzalutamide and docetaxel
- Liquid biopsy: BRCA2 mutation
 - Olaparib with initial response but rising PSA at 4 months, asymptomatic
- Enrolled on the VISION study
 - Received 6 doses of 177Lu-PSMA-617
 - PSA progression: Trial of pembrolizumab in combination with investigational agent

Question

- For a patient who responds to 177Lu-PSMA-617 with good tolerance can you rechallenge the patient?

CARD: Imaging-Based PFS and OS with Cabazitaxel versus Abiraterone or Enzalutamide for mCRPC

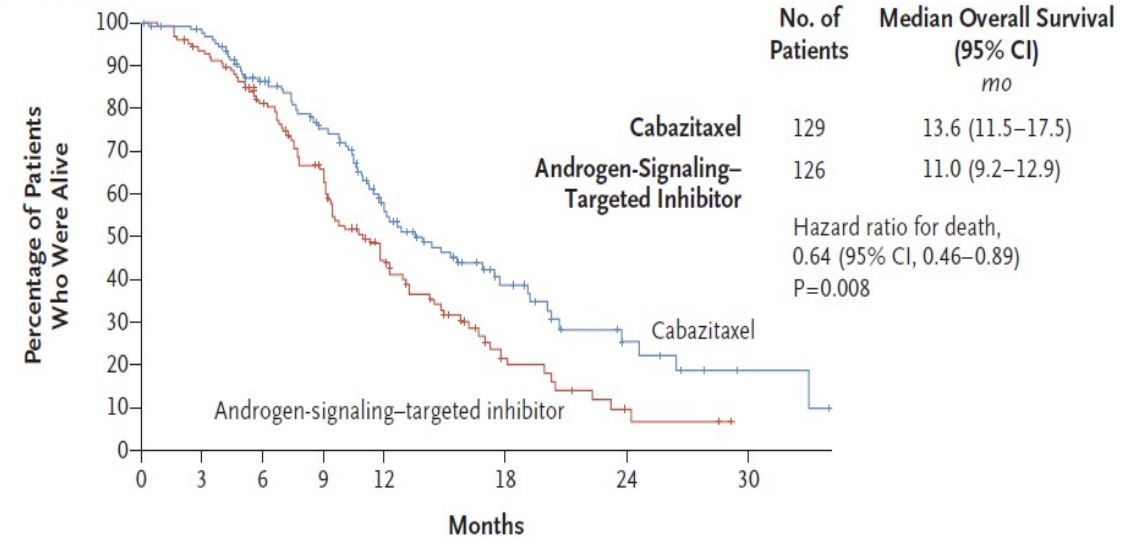
A Imaging-Based Progression-free Survival



No. at Risk

Cabazitaxel	129	91	64	41	23	9	2	1
Androgen-signaling-targeted inhibitor	126	61	36	22	7	3	1	0

A Overall Survival



No. at Risk

Cabazitaxel	129	122	96	77	51	21	8	2
Androgen-signaling-targeted inhibitor	126	116	88	64	39	11	3	0

CARD: Select Adverse Events

Table 2. Adverse Events (Safety Population).

Event	Cabazitaxel (N=126)		Androgen-Signaling–Targeted Inhibitor (N=124)	
	Any Grade	Grade ≥3	Any Grade	Grade ≥3
Any adverse event — no. (%)	124 (98.4)	—	117 (94.4)	—
Any grade ≥3 adverse event — no. (%)	—	71 (56.3)	—	65 (52.4)
Any serious adverse event — no. (%)	49 (38.9)	—	48 (38.7)	—
Any adverse event leading to permanent discontinuation of treatment — no. (%)	25 (19.8)	—	11 (8.9)	—
Any adverse event leading to death — no. (%)*	7 (5.6)	—	14 (11.3)	—
Common adverse events — no. (%)†				
Asthenia or fatigue	67 (53.2)	5 (4.0)	45 (36.3)	3 (2.4)
Diarrhea	50 (39.7)	4 (3.2)	8 (6.5)	0
Infection	40 (31.7)	10 (7.9)	25 (20.2)	9 (7.3)
Musculoskeletal pain or discomfort‡	34 (27.0)	2 (1.6)	49 (39.5)	7 (5.6)
Nausea or vomiting	33 (26.2)	0	29 (23.4)	2 (1.6)
Peripheral neuropathy	25 (19.8)	4 (3.2)	4 (3.2)	0
Constipation	19 (15.1)	0	13 (10.5)	0
Hematuria	19 (15.1)	1 (0.8)	7 (5.6)	2 (1.6)
Laboratory abnormalities — no./total no. (%)††				
Anemia	124/125 (99.2)	10/125 (8.0)	118/124 (95.2)	6/124 (4.8)
Leukopenia	93/125 (74.4)	40/125 (32.0)	39/124 (31.5)	2/124 (1.6)
Neutropenia	81/123 (65.9)	55/123 (44.7)	8/124 (6.5)	4/124 (3.2)
Thrombocytopenia	51/125 (40.8)	4/125 (3.2)	20/124 (16.1)	2/124 (1.6)
Aspartate aminotransferase increased	27/124 (21.8)	4/124 (3.2)	35/124 (28.2)	0/124
Alanine aminotransferase increased	24/124 (19.4)	1/124 (0.8)	11/124 (8.9)	0/124
Hypokalemia	15/125 (12.0)	1/125 (0.8)	19/124 (15.3)	1/124 (0.8)

ORIGINAL RESEARCH

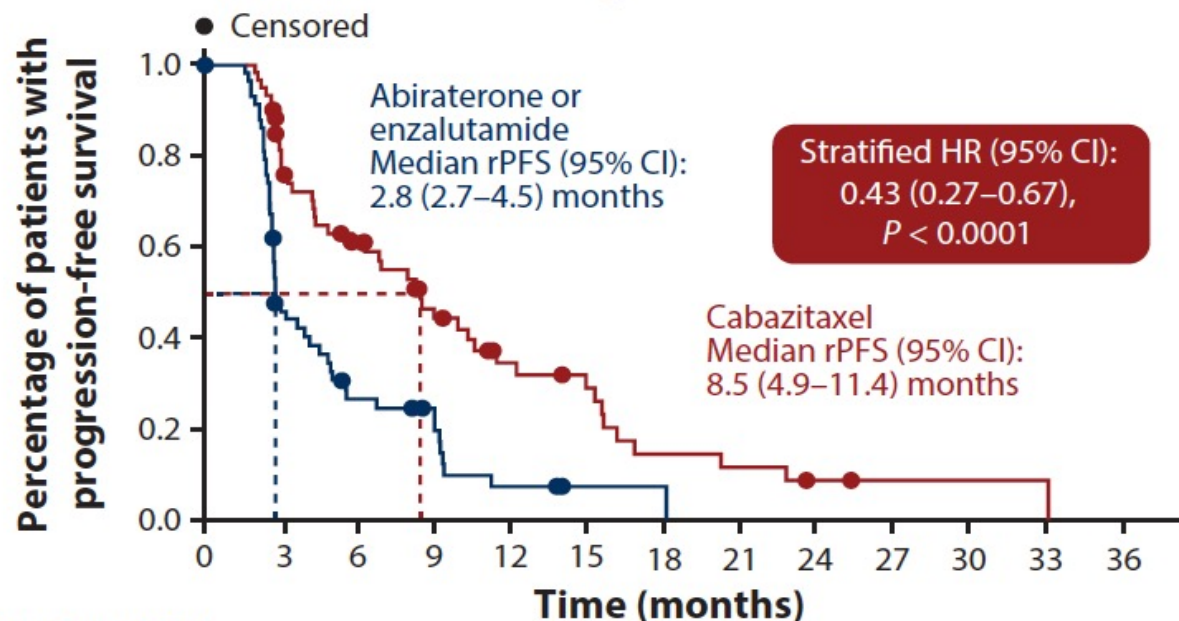
Baseline neutrophil-to-lymphocyte ratio as a predictive and prognostic biomarker in patients with metastatic castration-resistant prostate cancer treated with cabazitaxel versus abiraterone or enzalutamide in the CARD study

R. de Wit^{1*}, C. Wülfing², D. Castellano³, G. Kramer⁴, J.-C. Eymard⁵, C. N. Sternberg⁶, K. Fizazi^{7,8}, B. Tombal⁹, A. Bamias¹⁰, J. Carles¹¹, R. Iacovelli^{12,13}, B. Melichar¹⁴, Á. Sverrisdóttir¹⁵, C. Theodore¹⁶, S. Feyerabend¹⁷, C. Helissey¹⁸, M. C. Foster¹⁹, A. Ozatilgan¹⁹, C. Geffriaud-Ricouard²⁰ & J. de Bono^{21,22}

ESMO Open 2021;[Online ahead of print].

CARD: Radiographic PFS (rPFS) by Baseline Neutrophil-to-Lymphocyte Ratio (NLR)

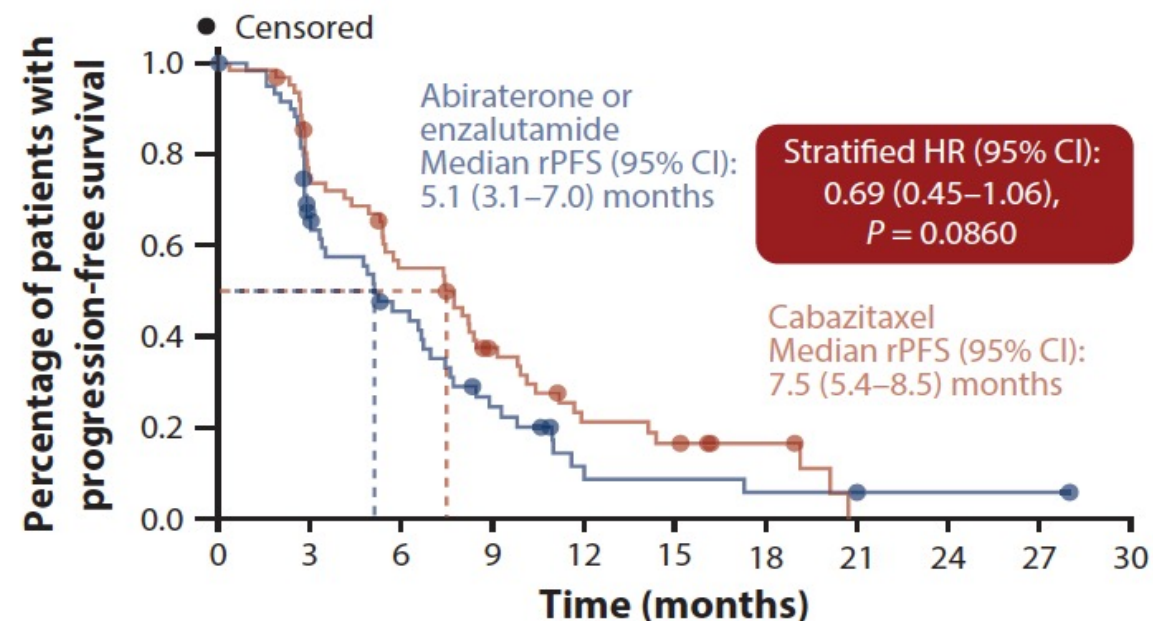
High NLR



Number at risk

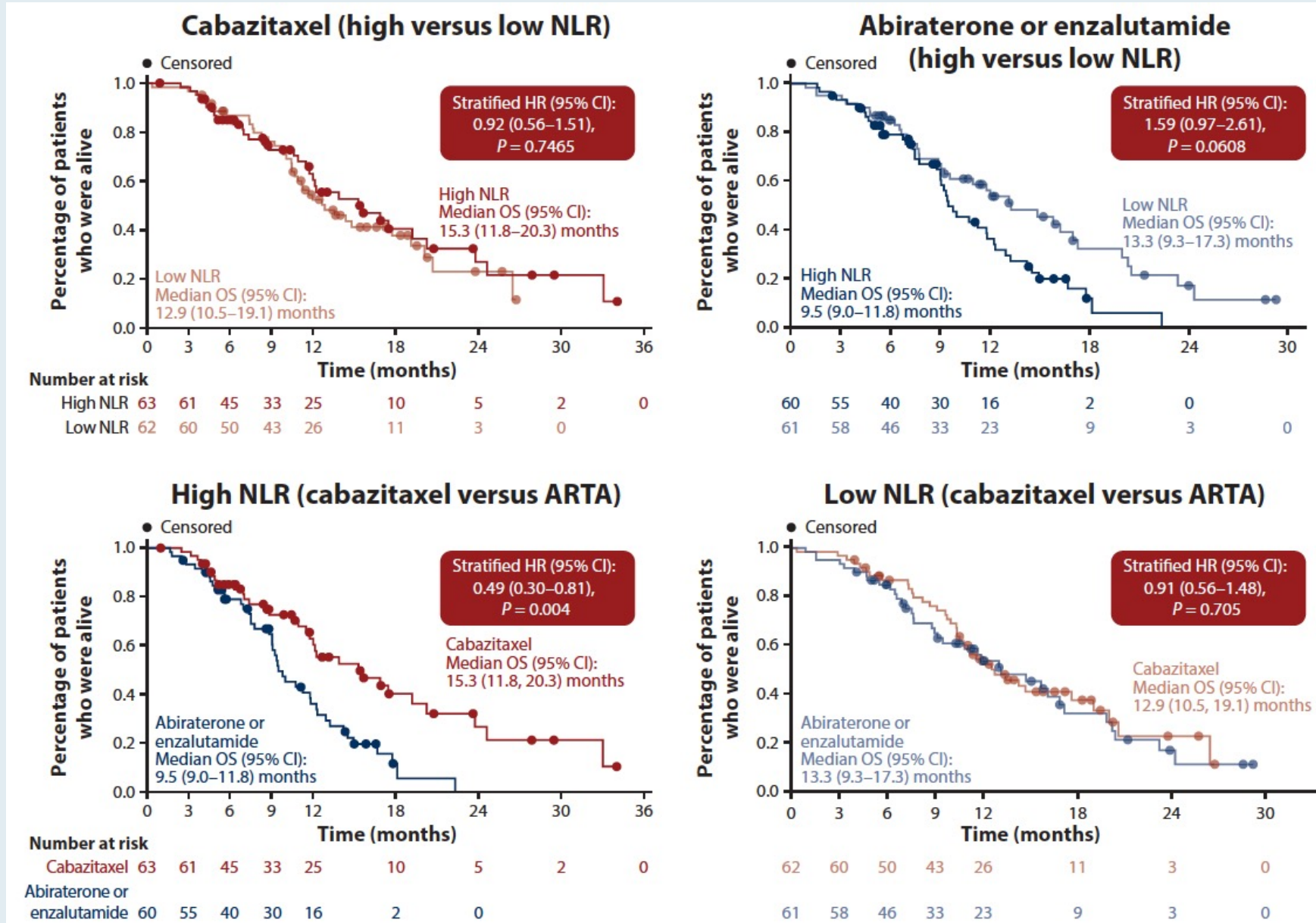
Cabazitaxel	63	45	31	21	13	5	2	1	0
Abiraterone or enzalutamide	60	25	13	10	3	1	0		

Low NLR



Cabazitaxel	62	45	32	19	10	4		0
Abiraterone or enzalutamide	61	35	22	11	4	2		1

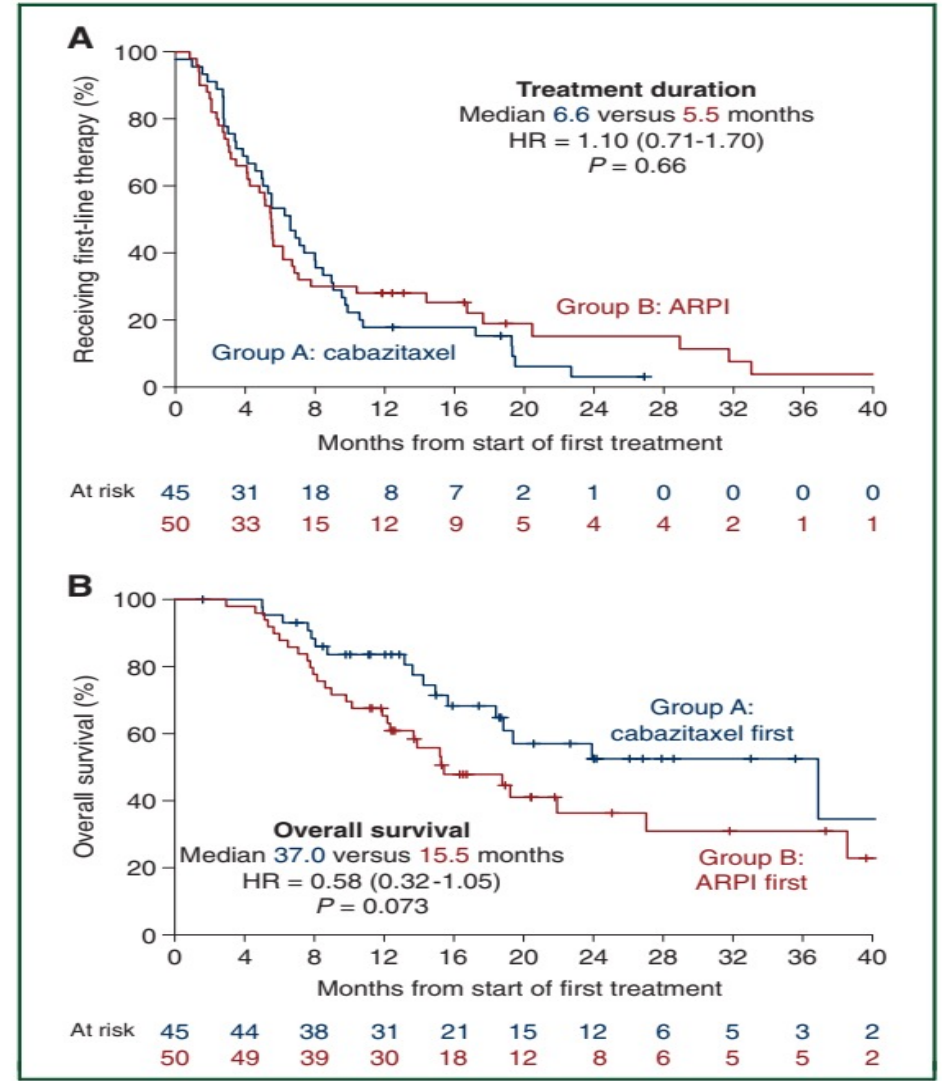
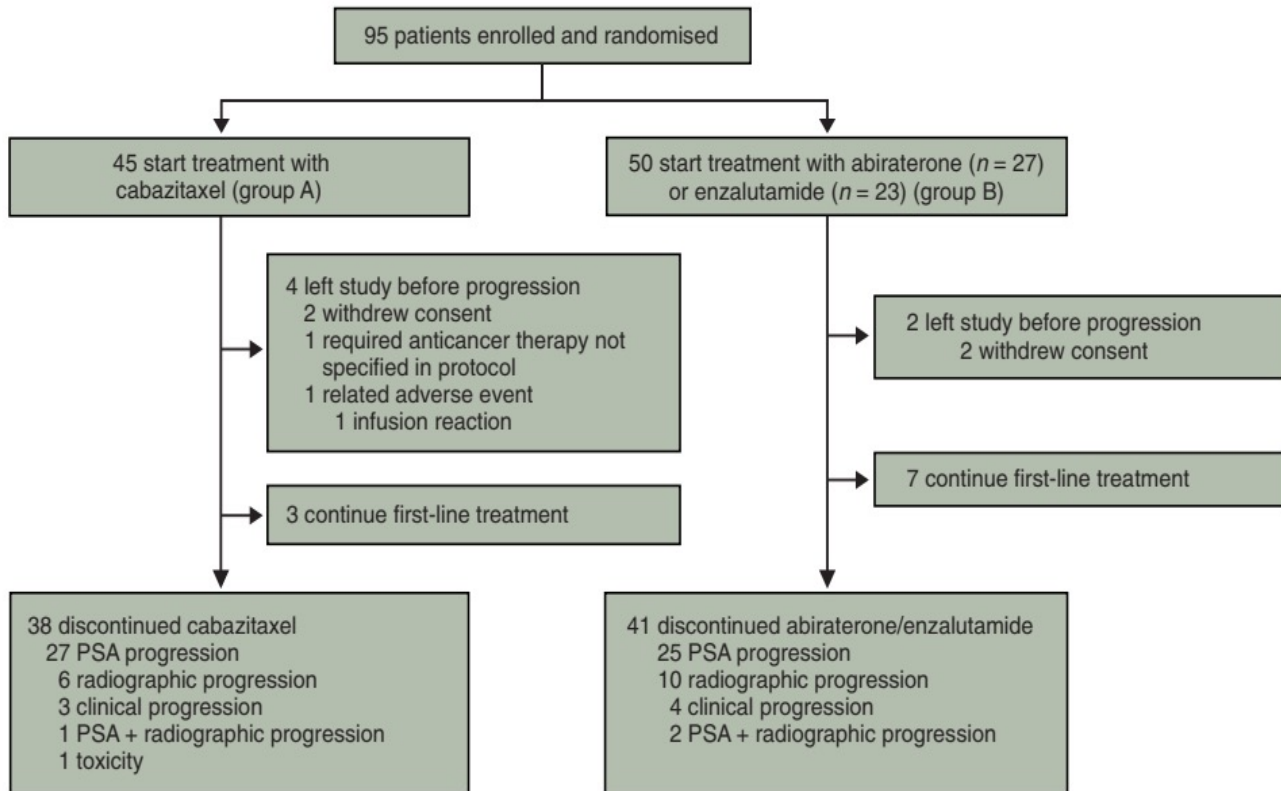
CARD: OS by Baseline NLR



The Canadian Trial (Phase II OZM-054 Trial)

Poor prognosis:

liver mets,
CRPC <12 months,
or >3 of 6 (LDH, ECOG, visceral, albumin, ALP, <36 mo from Dx)



First Results from a Randomized Phase II Study of Cabazitaxel (CBZ) versus an Androgen Receptor Targeted Agent (ARTA) in Patients with Poor-Prognosis Castration-Resistant Prostate Cancer (mCRPC)

van der Zande K et al.

ASCO 2021;Abstract 5059.

The Dutch Trial (Phase II OSTRICH Trial)

Inclusion criteria

- mCRPC
- ECOG PS0-2
- Testosterone <50 ng/dL
- Adequate bone marrow and liver functions
- Prior docetaxel
- Previous ARTA was allowed
- Progressive disease
- Features of poor prognostic disease (≥ 1):
 - ❖ Liver metastasis
 - ❖ Castration resistant <12m
 - ❖ Progressive <6m after docetaxel

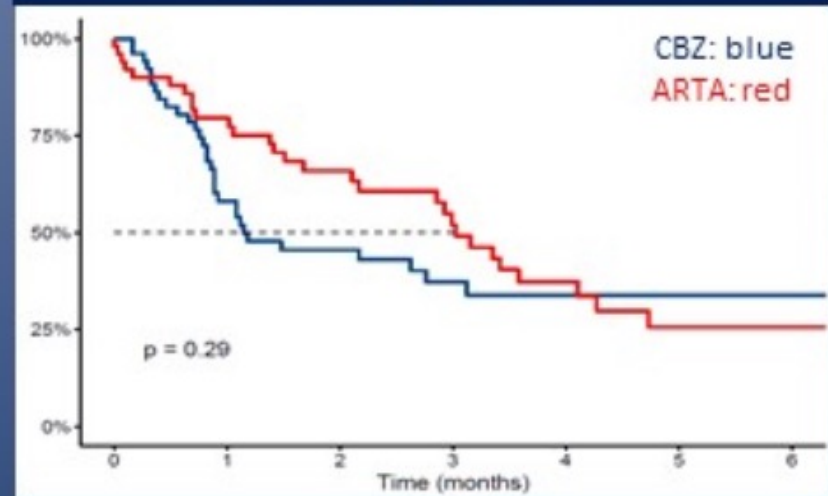
R

Cabazitaxel

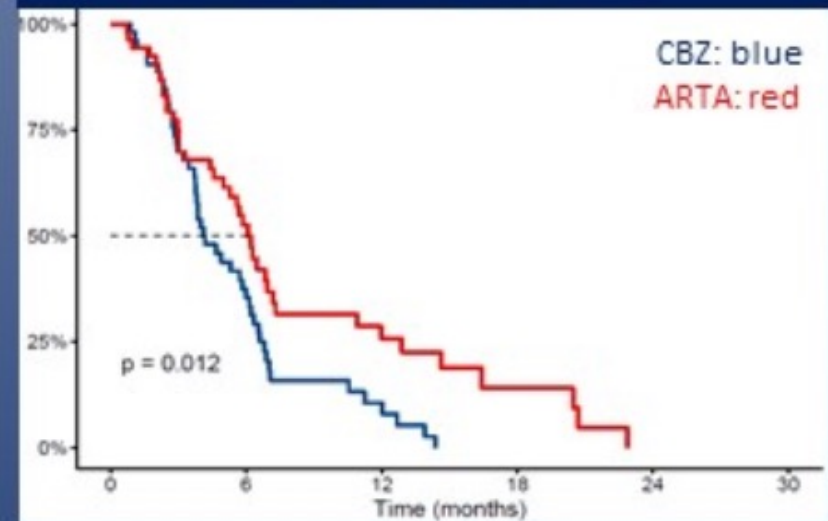
Abiraterone/P
OR enzalutamide



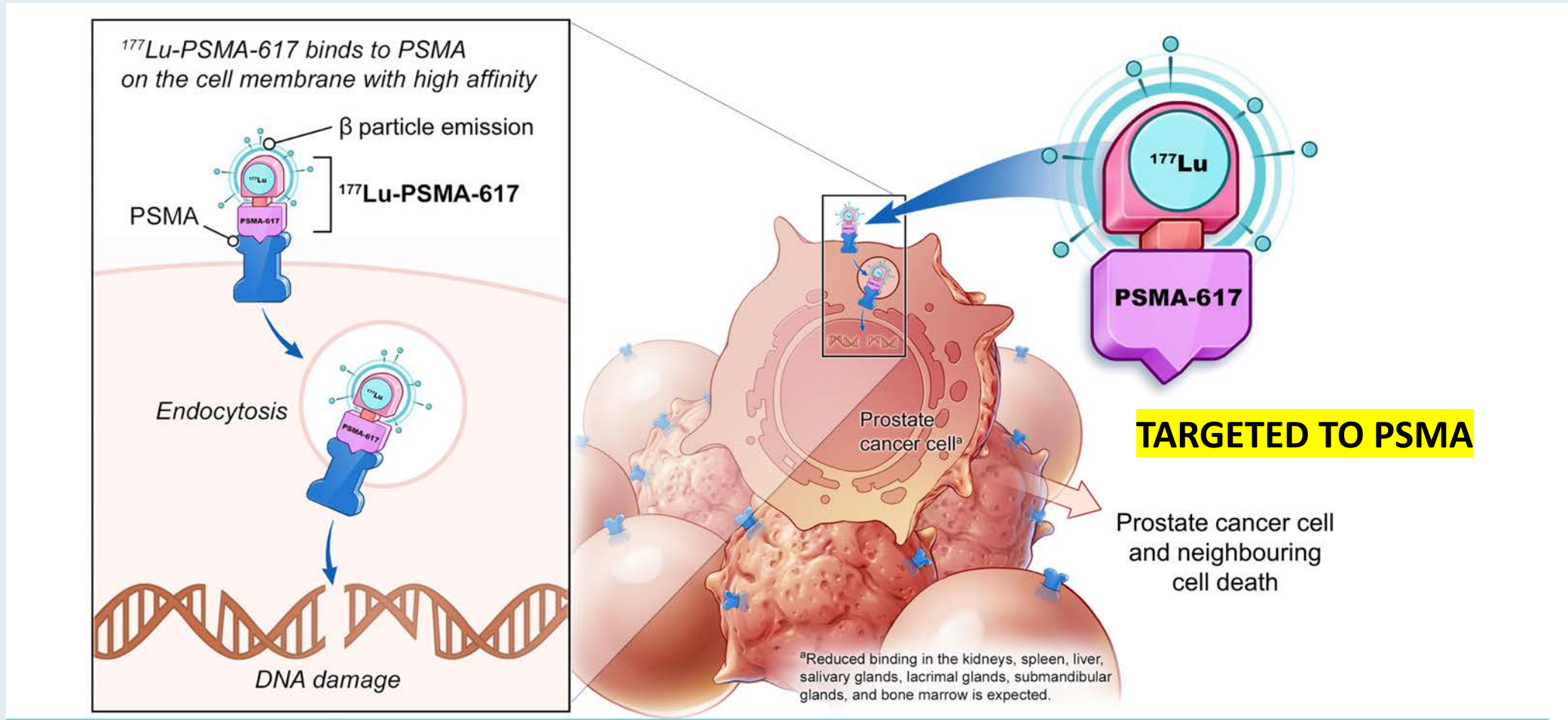
Time to PSA progression



Time to clinical progression



^{177}Lu -PSMA-617: Mechanism of Action



N Engl J Med 2021;385:1091-103

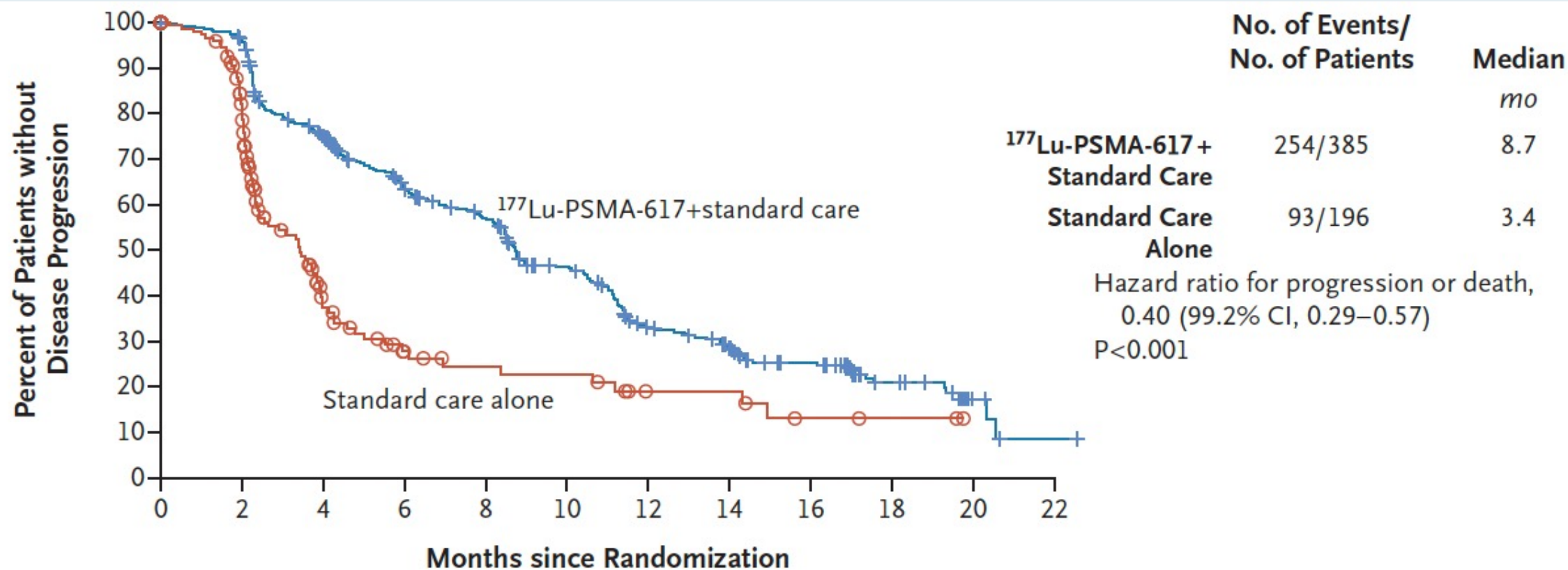
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

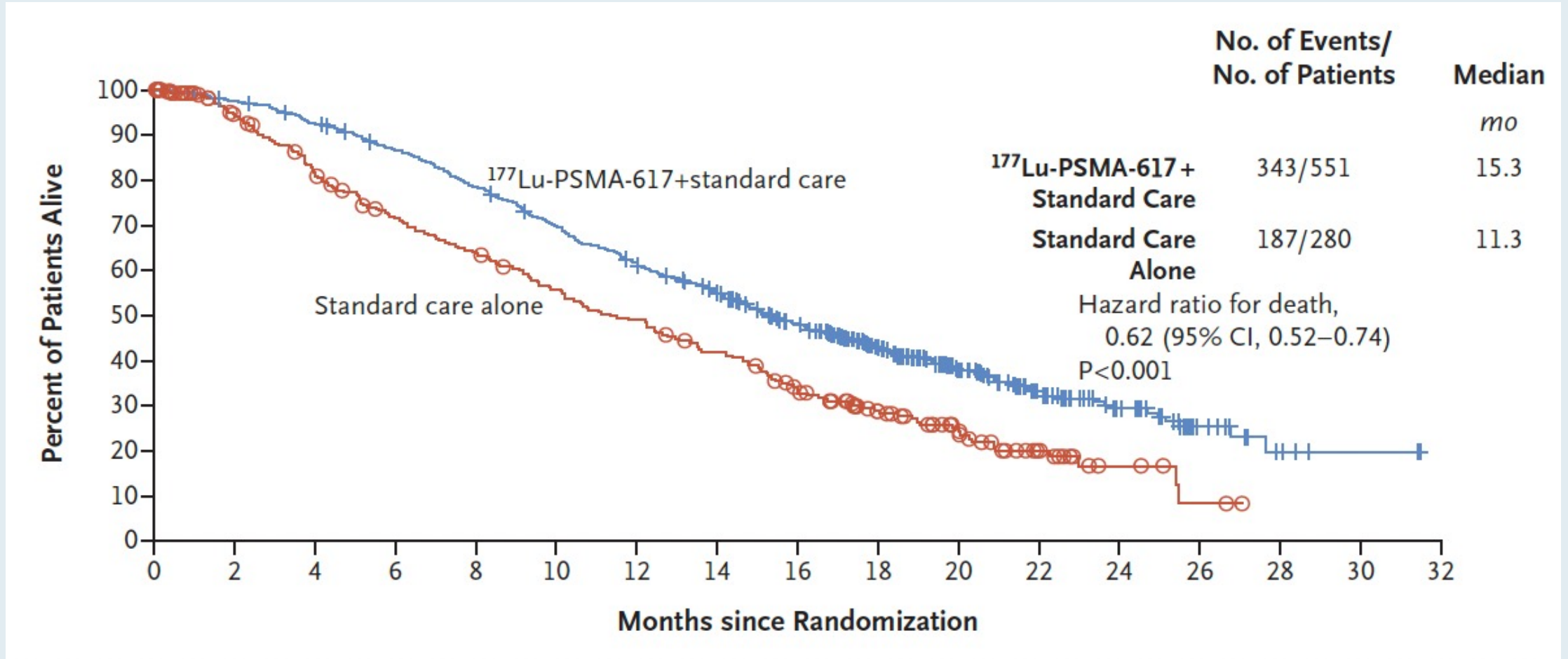
Lutetium-177–PSMA-617 for Metastatic Castration-Resistant Prostate Cancer

O. Sartor, J. de Bono, K.N. Chi, K. Fizazi, K. Herrmann, K. Rahbar, S.T. Tagawa, L.T. Nordquist, N. Vaishampayan, G. El-Haddad, C.H. Park, T.M. Beer, A. Armour, W.J. Pérez-Contreras, M. DeSilvio, E. Kpamegan, G. Gericke, R.A. Messmann, M.J. Morris, and B.J. Krause, for the VISION Investigators*

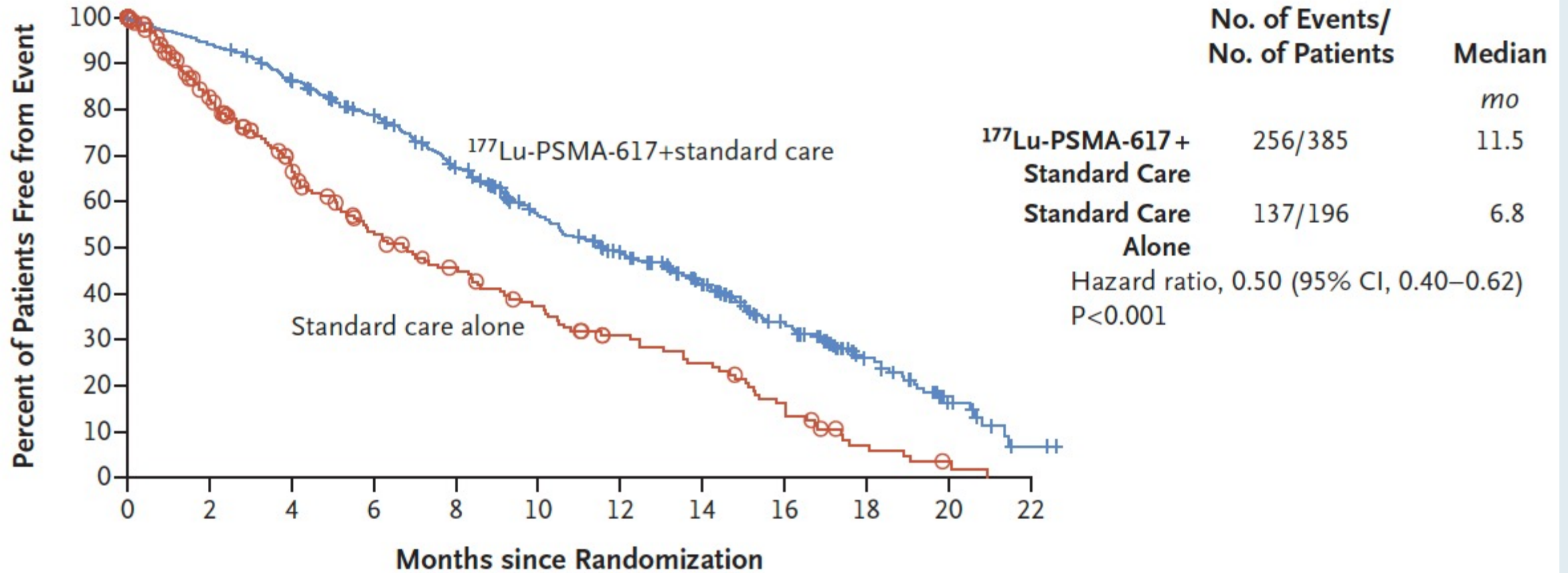
VISION: Imaging-Based Progression-Free Survival



VISION: Overall Survival



VISION: Time to First Symptomatic Skeletal Event



VISION: Selected Adverse Events

Event	¹⁷⁷ Lu-PSMA-617 plus Standard Care (N = 529)		Standard Care Alone (N = 205)	
	All Grades	Grade ≥3	All Grades	Grade ≥3
	<i>number of patients (percent)</i>			
Any adverse event	519 (98.1)	279 (52.7)	170 (82.9)	78 (38.0)
Fatigue	228 (43.1)	31 (5.9)	47 (22.9)	3 (1.5)
Thrombocytopenia	91 (17.2)	42 (7.9)	9 (4.4)	2 (1.0)
Lymphopenia	75 (14.2)	41 (7.8)	8 (3.9)	1 (0.5)
Leukopenia	66 (12.5)	13 (2.5)	4 (2.0)	1 (0.5)
Adverse event that led to reduction in ¹⁷⁷ Lu-PSMA-617 dose	30 (5.7)	10 (1.9)	NA	NA
Adverse event that led to interruption of ¹⁷⁷ Lu-PSMA-617†	85 (16.1)	42 (7.9)	NA	NA
Adverse event that led to discontinuation of ¹⁷⁷ Lu-PSMA-617†	63 (11.9)	37 (7.0)	NA	NA
Adverse event that led to death‡	19 (3.6)	19 (3.6)	6 (2.9)	6 (2.9)

177Lu-PSMA-617 (LuPSMA) versus Cabazitaxel in Metastatic Castration-Resistant Prostate Cancer (mCRPC) Progressing After Docetaxel: Updated Results Including Progression-Free Survival (PFS) and Patient-Reported Outcomes (PROs) (TheraP ANZUP 1603)¹

[¹⁷⁷Lu]Lu-PSMA-617 versus cabazitaxel in patients with metastatic castration-resistant prostate cancer (TheraP): a randomised, open-label, phase 2 trial²

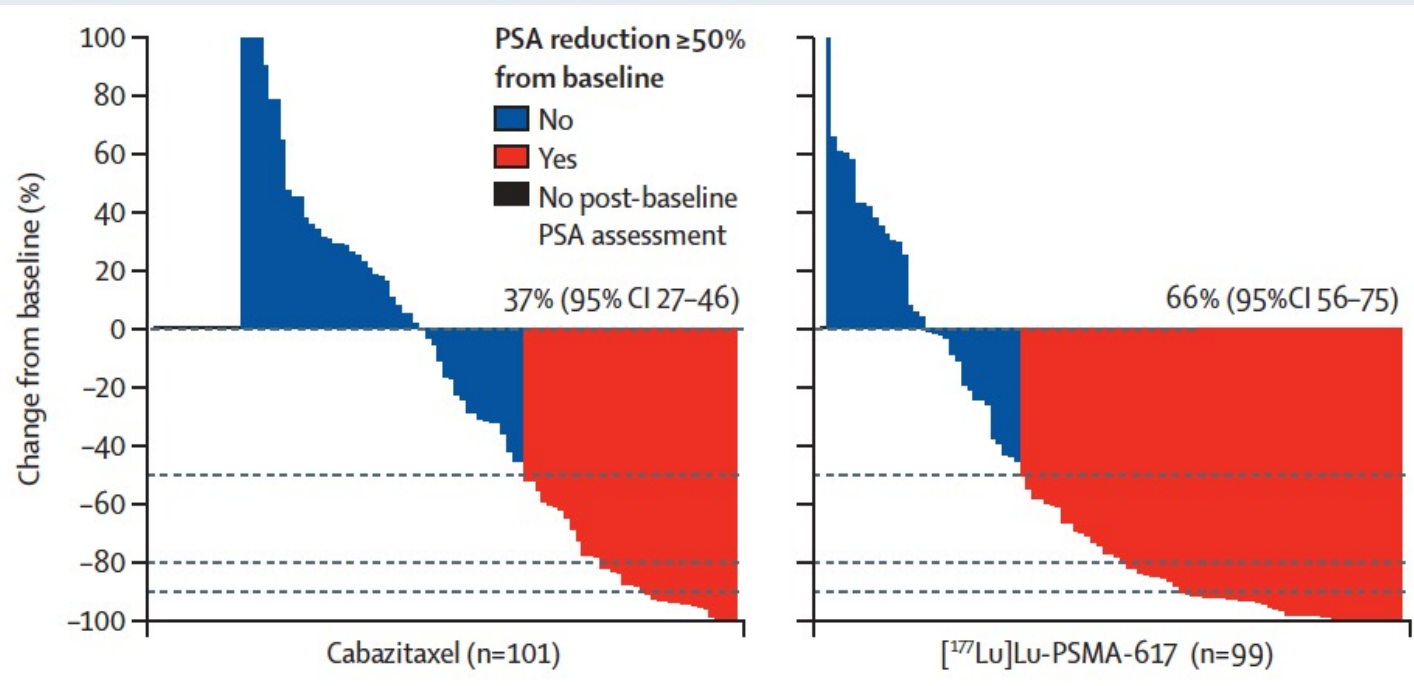
Michael S Hofman, Louise Emmett, Shahneen Sandhu, Amir Iravani, Anthony M Joshua, Jeffrey C Goh, David A Pattison, Thean Hsiang Tan, Ian D Kirkwood, Siobhan Ng, Roslyn J Francis, Craig Gedye, Natalie K Rutherford, Andrew Weickhardt, Andrew M Scott, Sze-Ting Lee, Edmond M Kwan, Arun A Azad, Shakher Ramdave, Andrew D Redfern, William Macdonald, Alex Guminski, Edward Hsiao, Wei Chua, Peter Lin, Alison Y Zhang, Margaret M McJannett, Martin R Stockler, John A Violet, Scott G Williams, Andrew J Martin, Ian D Davis, for the TheraP Trial Investigators and the Australian and New Zealand Urogenital and Prostate Cancer Trials Group†*

¹ Hofman MS et al. Genitourinary Cancers Symposium 2021;Abstract 6.

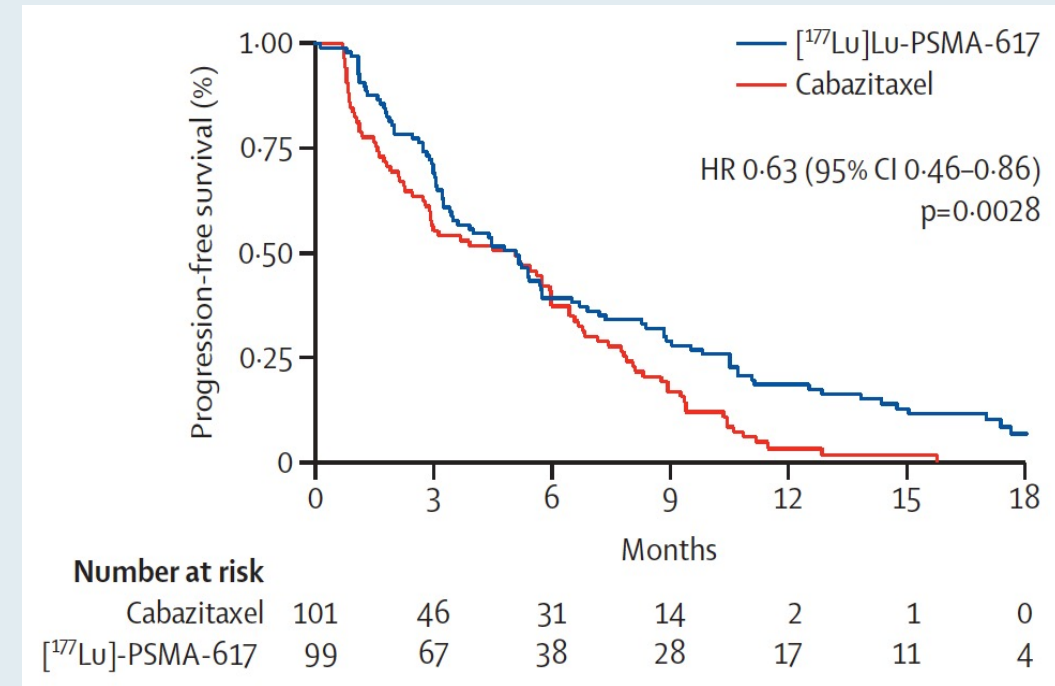
² Hofman MS et al. *Lancet* 2021;397(10276):797-804.

TheraP ANZUP 1603: PSA Response and PFS

PSA response



Radiographic or PSA progression-free survival



TheraP ANZUP 1603: Adverse Events

	[¹⁷⁷ Lu]Lu-PSMA-617 (n=98)		Cabazitaxel (n=85)	
	Grade 1-2	Grade 3-4	Grade 1-2	Grade 3-4
Fatigue	69 (70%)	5 (5%)	61 (72%)	3 (4%)
Pain*	60 (61%)	11 (11%)	52 (61%)	4 (5%)
Dry mouth	59 (60%)	0	18 (21%)	0
Diarrhoea	18 (18%)	1 (1%)	44 (52%)	4 (5%)
Nausea	39 (40%)	1 (1%)	29 (34%)	0
Thrombocytopenia	18 (18%)	11 (11%)	4 (5%)	0
Dry eyes	29 (30%)	0	3 (4%)	0
Anaemia	19 (19%)	8 (8%)	11 (13%)	7 (8%)
Neuropathy†	10 (10%)	0	22 (26%)	1 (1%)
Dysgeusia	12 (12%)	0	23 (27%)	0
Haematuria	3 (3%)	1 (1%)	12 (14%)	5 (6%)
Neutropenia‡	7 (7%)	4 (4%)	4 (5%)	11 (13%)
Insomnia	9 (9%)	0	12 (14%)	1 (1%)
Vomiting	12 (12%)	1 (1%)	10 (12%)	2 (2%)
Dizziness	4 (4%)	0	11 (13%)	0
Leukopenia	10 (10%)	1 (1%)	5 (6%)	1 (1%)
Any adverse event	53 (54%)	32 (33%)	34 (40%)	45 (53%)

Meet The Professor with Dr Sartor

MODULE 1: Overview of Metastatic Castration-Resistant Prostate Cancer (mCRPC)

- Dr Mar: A 75-year-old man with mCRPC

MODULE 2: BRCA/HRD-Negative mCRPC

- Dr Bachow: An 81-year-old man with mCRPC – LOH and AR-V7 splice site mutation
- Dr Ibrahim: A 74-year-old man with mCRPC – Enrolled on the VISION trial
- Key Relevant Data Sets

MODULE 3: BRCA/HRD-Positive mCRPC

- Dr Zafar: A 68-year-old man with metastatic hormone-sensitive prostate cancer and an ARID1A mutation
- Dr Morris: A 72-year-old man with mCRPC and a germline RAD51c mutation
- Dr Bachow: A 62-year-old man with mCRPC and a somatic BRCA1 mutation – High TMB
- Key Relevant Data Sets

MODULE 4: Other Novel Agents and Strategies Under Investigation

MODULE 5 Journal Club with Dr Sartor

MODULE 6: Faculty Survey

MODULE 7: Appendix

Case Presentation – Dr Zafar: A 68-year-old man with metastatic hormone-sensitive prostate cancer and an ARID1A mutation



Dr Syed Zafar

- 2012: Gleason 4 + 3 prostate cancer, PSA 1.8 ng/dL, s/p definitive RT
- 2020: PSA 1.8 ng/dL, abnormal LFTs → Staging: multifocal, biopsy-proven osseous and hepatic metastases
- Docetaxel, with improvement in LFTs, PSA undetectable
- NGS: ARID1A mutation
- Olaparib

Case Presentation – Dr Morris: A 72-year-old man with mCRPC and a germline RAD51c mutation



Dr David Morris

- 7/2015: Gleason 4 + 3, Decipher[®] low risk prostate cancer, s/p RALP
- 6/2016: Recurrence → RT
- 1/2019: PSA increased to 7.3 → ADT → PSA undetectable → 0.03 → 0.8 → 1.0 → 1.6 → 7 → 19
 - Imaging: No evidence of metastatic disease
- Fluciclovine uptake in nodes → Sipuleucel-T x 1 month → Continued PSA increase
 - Germline testing: Rad51c mutation
- Abiraterone/prednisone, with PSA decrease from 22 to 6.9

Questions

- How long would you continue with abiraterone/prednisone before trying a PARP inhibitor? Would you wait for imaging progression, or would you try a PARP inhibitor when the PSA is rising even if imaging is stable?

Case Presentation – Dr Bachow: A 62-year-old man with mCRPC and a somatic BRCA1 mutation – High tumor mutation burden (TMB)



Dr Spencer Bachow

- 9/2010: Gleason 4 + 3 = 7, PSA 3 ng/dL prostate cancer, s/p RALP, zoledronic acid, EBRT, orchiectomy, bicalutamide/leuprolide, abiraterone/prednisone
- 3/2017: Left supraclavicular lymph node positive for prostate cancer
- Testing: BRCA1 mutation (presumed somatic)
- Docetaxel → Clinical trial of rucaparib, with continued ADT
- 2021: Bladder metastases, PSA 0.84 ng/dL w/ castrate testosterone levels
- NGS: TMB 11.5 mut/mB (high) → Pembrolizumab

Questions

- In treatment-naïve patients with mHSPC or mCRPC that harbor both germline and/or somatic BRCA mutations, how do you sequence therapies? Are you giving PARP inhibitors up front followed by either abiraterone, enzalutamide, apalutamide or docetaxel?
- Do you ever give the hormonal therapies or docetaxel upfront and then at progression give the PARP inhibitor? What's your preferred sequence?
- Which PARP inhibitor do you prefer? Does germline or somatic mutation make a difference?
- What is your experience with immune checkpoint inhibitors in patients with mCRPC with a high TMB?

Positive Results Announced for the PROpel Phase III Trial of Olaparib with Abiraterone as First-Line Treatment for mCRPC

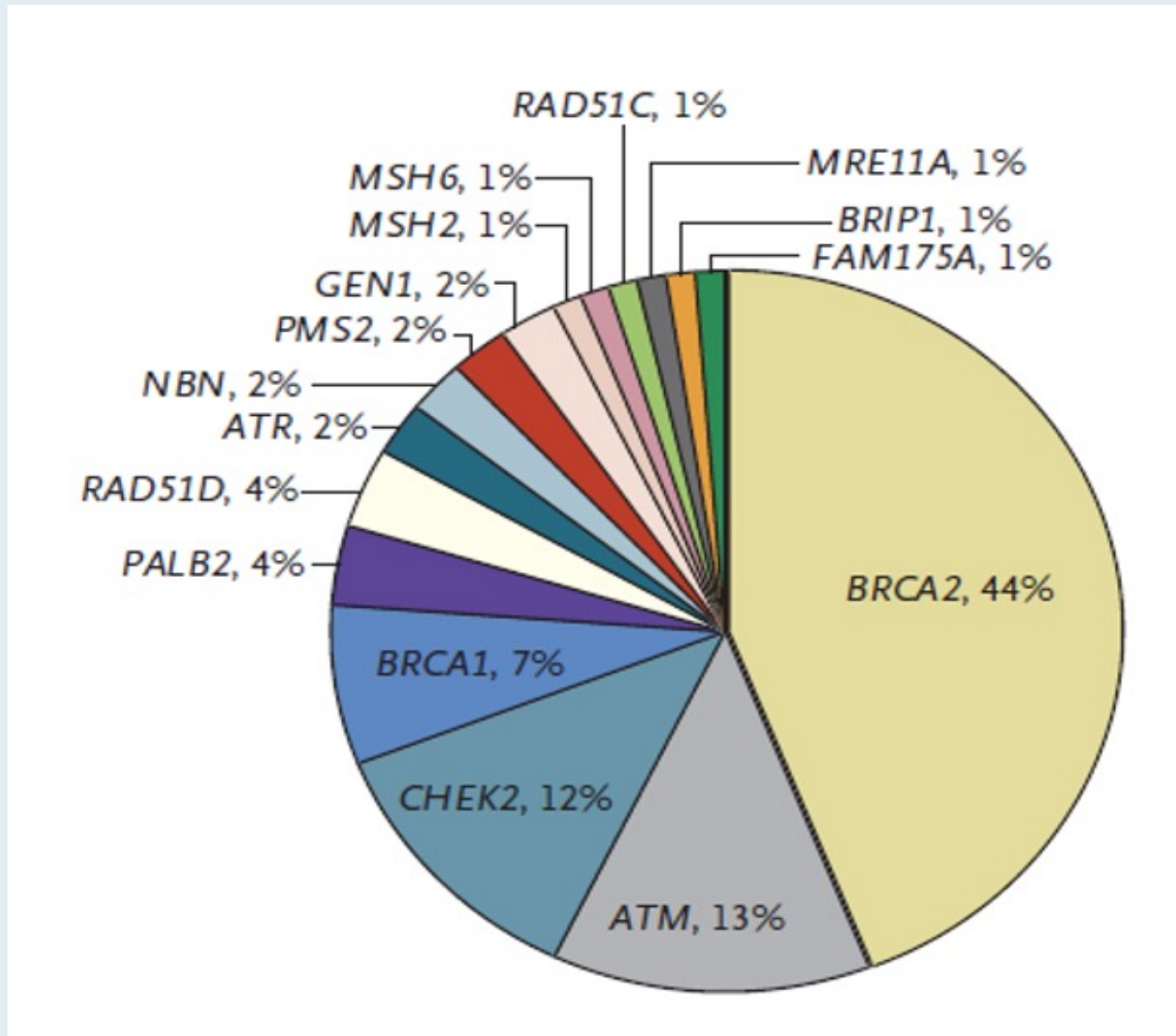
Press Release: September 24, 2021

“Positive high-level results from the PROpel Phase III trial showed that olaparib in combination with abiraterone demonstrated a statistically significant and clinically meaningful improvement in radiographic progression-free survival (rPFS) versus standard-of-care abiraterone as a 1st-line treatment for men with metastatic castration-resistant prostate cancer (mCRPC) with or without homologous recombination repair (HRR) gene mutations.

At a planned interim analysis, the Independent Data Monitoring Committee concluded that the trial met the primary endpoint of rPFS in men with mCRPC who had not received treatment in the 1st-line setting including with new hormonal agents or chemotherapy.

The data will be presented at an upcoming medical meeting.”

Inherited DNA Repair Gene Mutations in Men with Metastatic Prostate Cancer



- Multicenter study of 692 men
- Deleterious mutations were found in 82 men (11.8%) in 16 genes
- Observed rate exceeded that associated with localized prostate cancer (4.6%) and general population without cancer (2.7%)

Recent FDA Approvals of PARP Inhibitors for mCRPC

PARP inhibitor	Approval date	Pivotal study
Olaparib	May 19, 2020	PROfound
Rucaparib	May 15, 2020	TRITON2

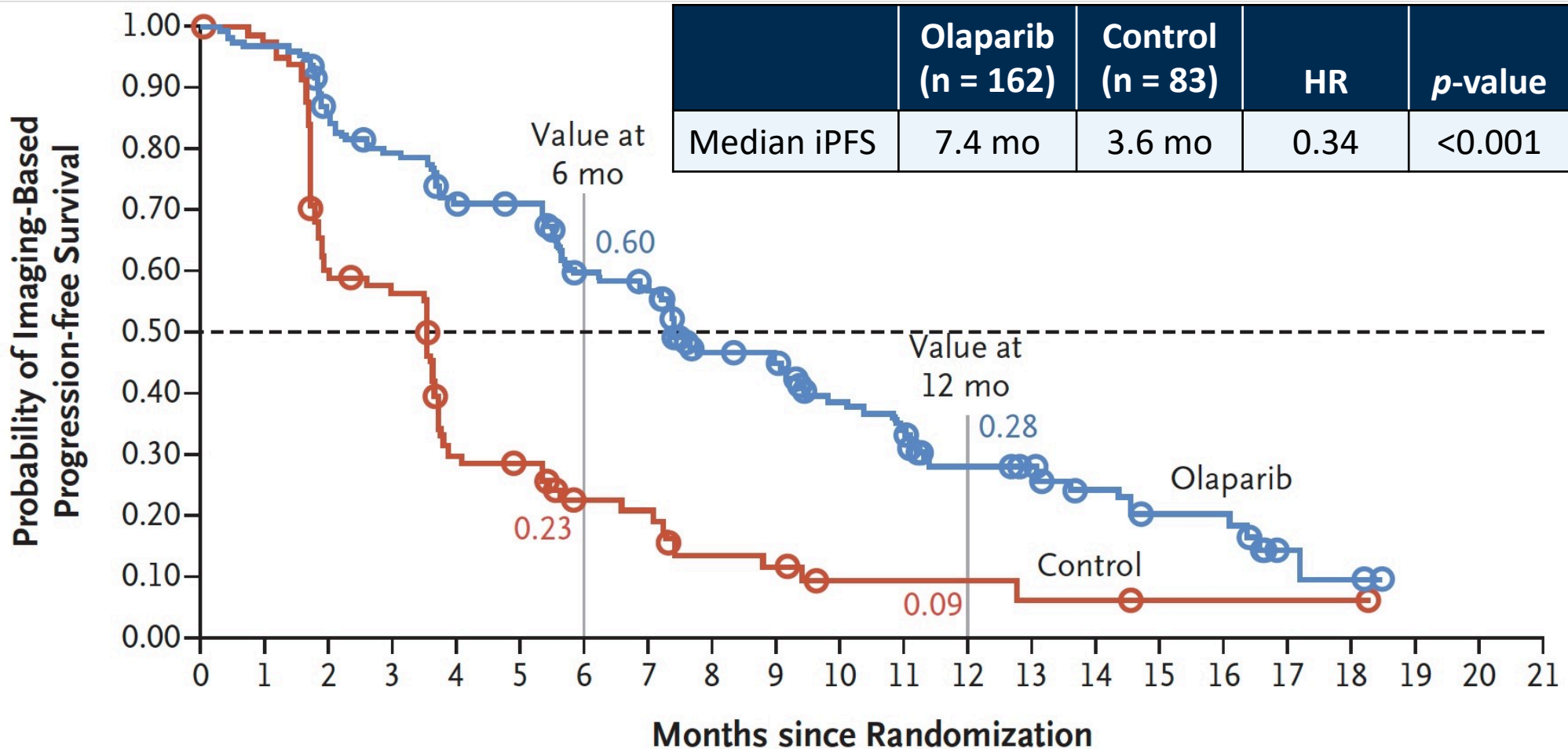
ORIGINAL ARTICLE

Olaparib for Metastatic Castration-Resistant Prostate Cancer

J. de Bono, J. Mateo, K. Fizazi, F. Saad, N. Shore, S. Sandhu, K.N. Chi, O. Sartor, N. Agarwal, D. Olmos, A. Thiery-Vuillemin, P. Twardowski, N. Mehra, C. Goessl, J. Kang, J. Burgents, W. Wu, A. Kohlmann, C.A. Adelman, and M. Hussain

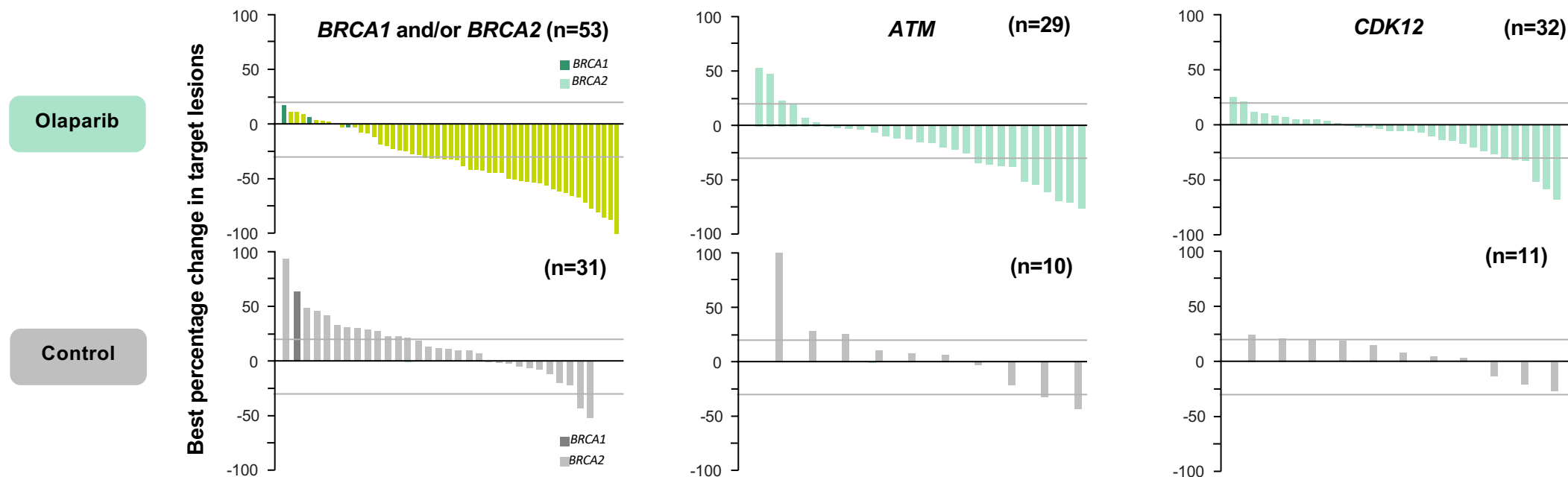
***N Engl J Med* 2020;382:2091-102**

PROfound Primary Endpoint: Imaging-Based PFS with Olaparib for Patients with mCRPC Who Had at Least 1 Alteration in BRCA1, BRCA2 or ATM (Cohort A)



Olaparib Antitumor Activity in PROfound

		Cohort A		Cohorts A+B		BRCA1 and/or BRCA2		ATM		CDK12	
		Olaparib (N=162)	Control (N=83)	Olaparib (N=256)	Control (N=131)	Olaparib (N=102)	Control (N=58)	Olaparib (N=62)	Control (N=24)	Olaparib (N=61)	Control (N=28)
rPFS	Median, months	7.4	3.6	5.8	3.5	9.8	3.0	5.4	4.7	5.1	2.2
	HR (95% CI)	0.34 (0.25–0.47)		0.49 (0.38–0.63)		0.22 (0.15–0.32)		1.04 (0.61–1.87)		0.74 (0.44–1.31)	
OS	Median OS, months	19.1	14.7	17.3	14.0	20.1	14.4	18.0	15.6	14.1	11.5
	HR (95% CI)	0.69 (0.50–0.97)		0.79 (0.61–1.03)		0.63 (0.42–0.95)		0.93 (0.53–1.75)		0.97 (0.57–1.71)	
ORR	Evaluable patients, n	84	43	138	67	57	33	30	10	34	12
	ORR, %	33.3	2.3	21.7	4.5	43.9	0	10.0	10.0	5.9	0
PSA	Evaluable patients, n	153	77	243	123	94	54	61	22	58	27
	Confirmed response, %	43.1	7.8	30.0	9.8	61.7	0	13.1	22.7	5.2	3.7
CTC	Evaluable patients, n	52	22	78	32	29	17	25	3	14	5
	Conversion, %	55.8	22.7	52.6	21.9	69.0	23.5	40.0	33.3	50.0	40.0



ORIGINAL ARTICLE

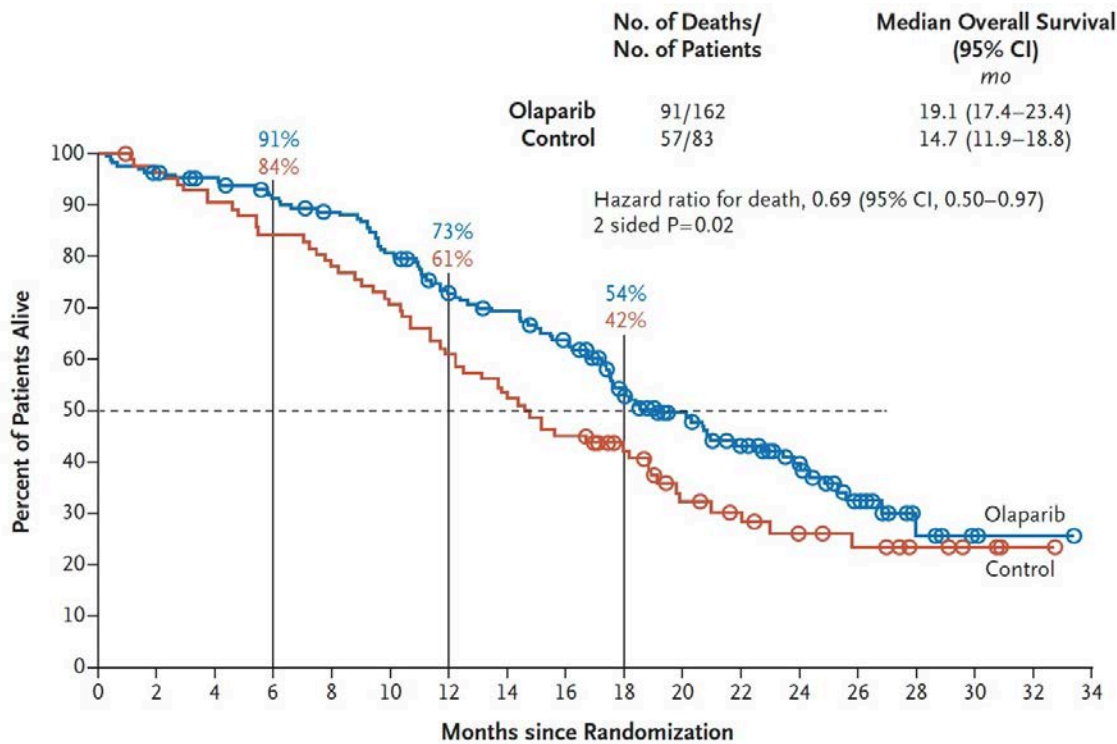
Survival with Olaparib in Metastatic Castration-Resistant Prostate Cancer

M. Hussain, J. Mateo, K. Fizazi, F. Saad, N. Shore, S. Sandhu, K.N. Chi, O. Sartor, N. Agarwal, D. Olmos, A. Thiery-Vuillemin, P. Twardowski, G. Roubaud, M. Özgüroğlu, J. Kang, J. Burgents, C. Gresty, C. Corcoran, C.A. Adelman, and J. de Bono, for the PROfound Trial Investigators*

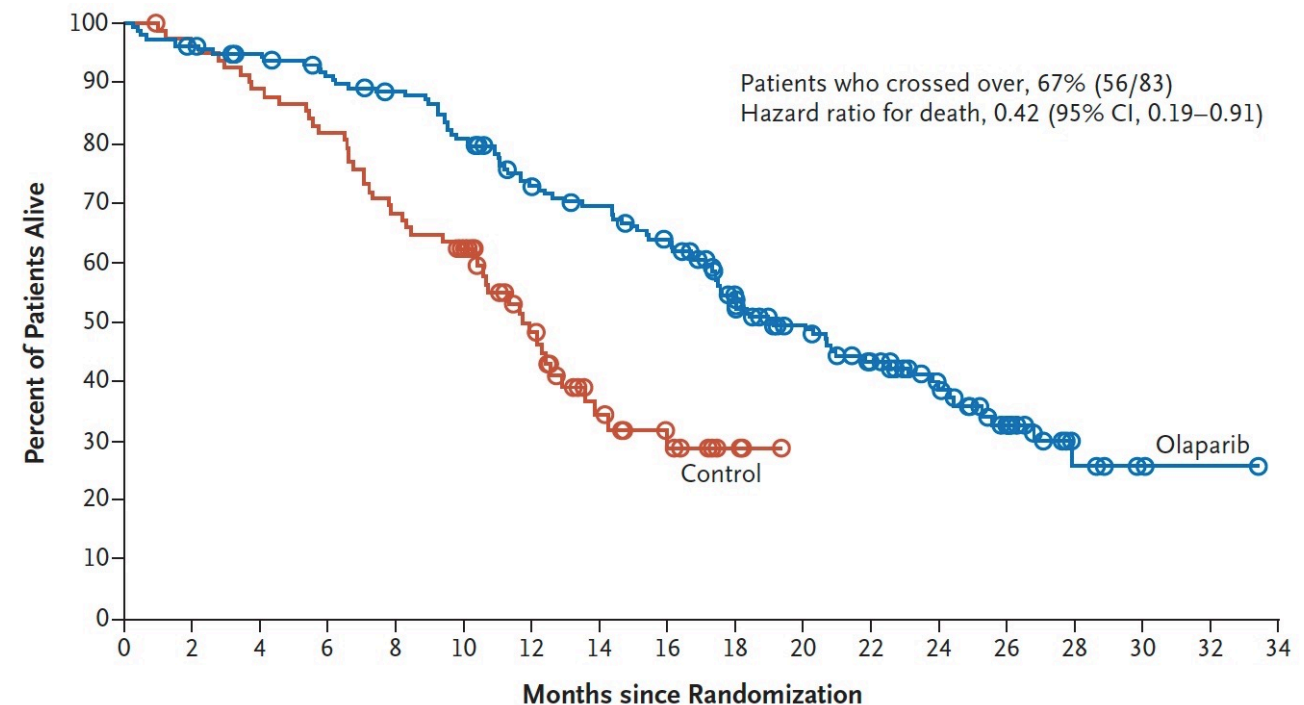
N Engl J Med 2020;383(24):2345-57.

PROfound: OS with Olaparib in Patients with mCRPC Who Had at Least 1 Alteration in BRCA1, BRCA2 or ATM (Cohort A)

Overall survival



Cross-over adjusted overall survival



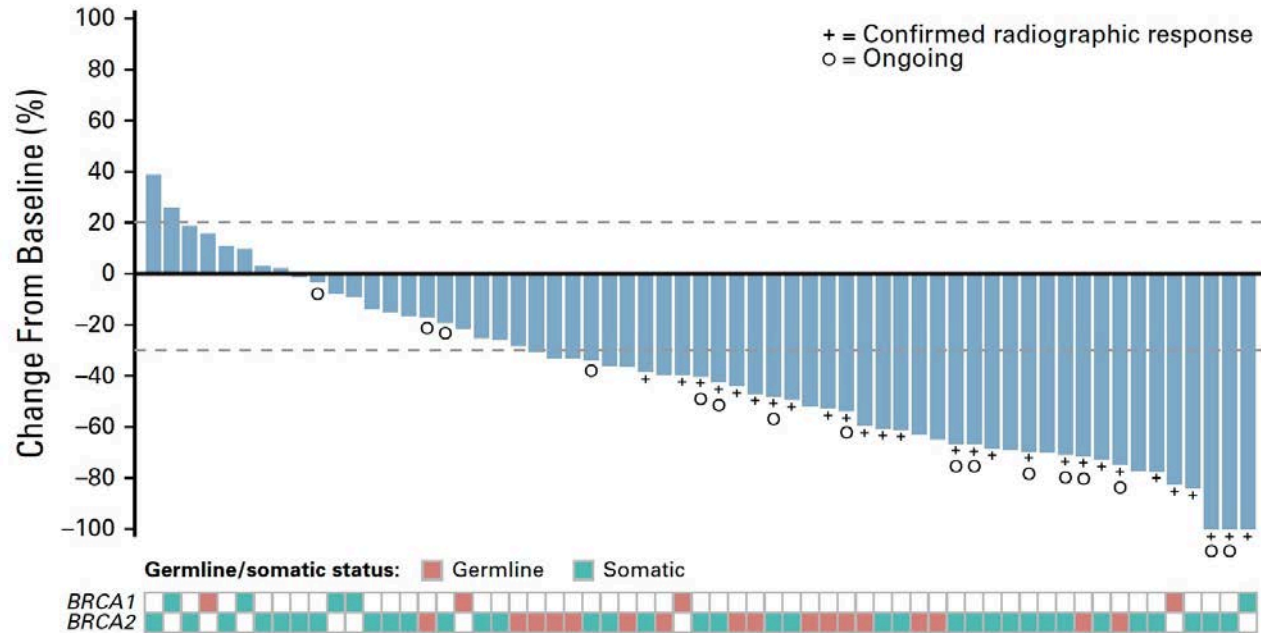
Rucaparib in Men With Metastatic Castration-Resistant Prostate Cancer Harboring a *BRCA1* or *BRCA2* Gene Alteration

Wassim Abida, MD, PhD¹; Akash Patnaik, MD, PhD, MMSc²; David Campbell, MBBS³; Jeremy Shapiro, MBBS⁴; Alan H. Bryce, MD⁵; Ray McDermott, MD, PhD, MBA⁶; Brieuc Sautois, MD, PhD⁷; Nicholas J. Vogelzang, MD⁸; Richard M. Bambury, MD⁹; Eric Voog, MD¹⁰; Jingsong Zhang, MD, PhD¹¹; Josep M. Piulats, MD¹²; Charles J. Ryan, MD¹³; Axel S. Merseburger, PhD¹⁴; Gedske Daugaard, DMSc¹⁵; Axel Heidenreich, MD¹⁶; Karim Fizazi, MD, PhD¹⁷; Celestia S. Higano, MD¹⁸; Laurence E. Krieger, MBChB¹⁹; Cora N. Sternberg, MD²⁰; Simon P. Watkins, PhD²¹; Darrin Despain, MStat²²; Andrew D. Simmons, PhD²³; Andrea Loehr, PhD²³; Melanie Dowson, BA²⁴; Tony Golsorkhi, MD²⁵; and Simon Chowdhury, MD, PhD^{26,27}; on behalf of the TRITON2 investigators

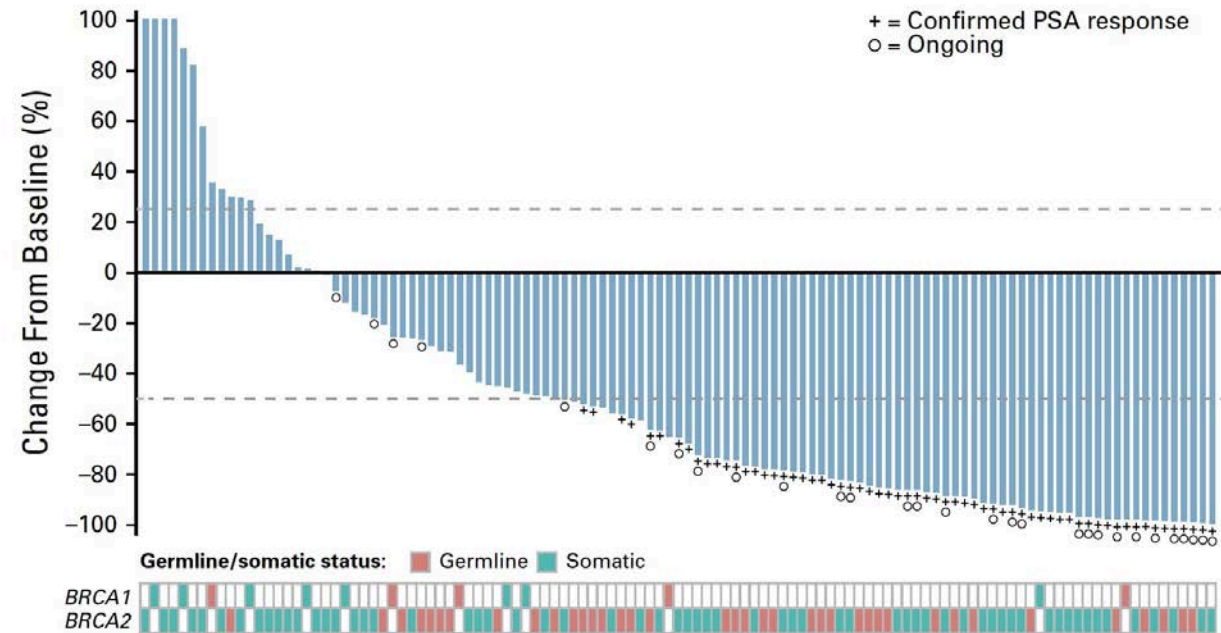
J Clin Oncol 2020;38(22):3763-72.

TRITON2: Response to Rucaparib in Patients with mCRPC Harboring a BRCA1 or BRCA2 Gene Alteration

ORR per independent radiology review: 43.5%



Confirmed PSA response rate: 54.8%



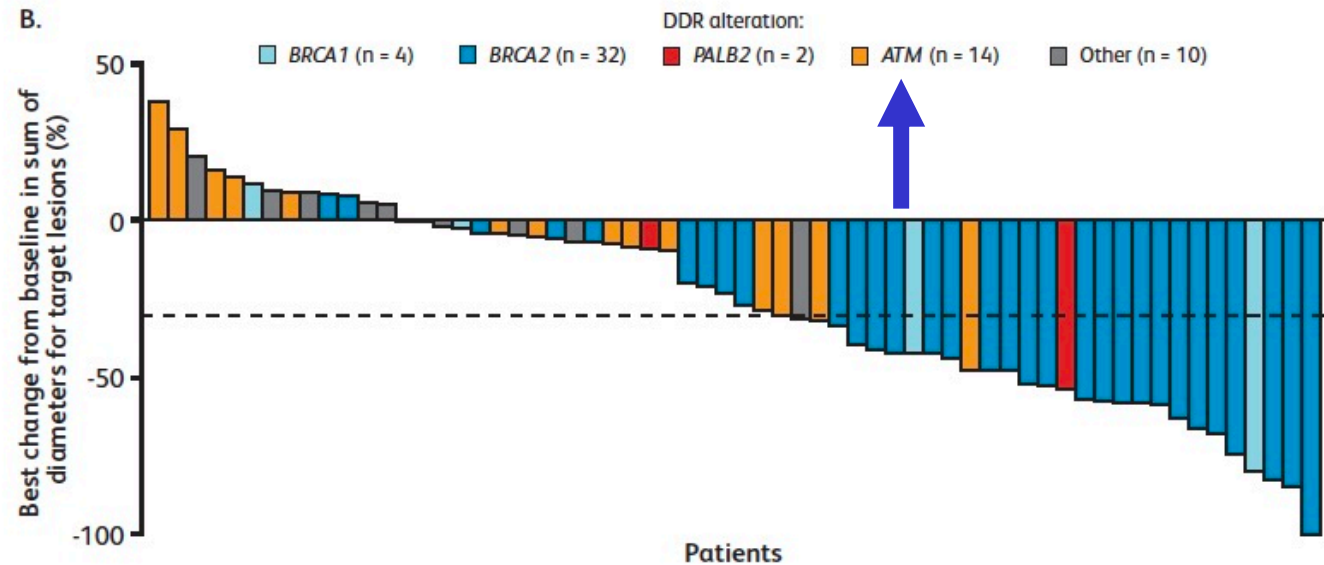
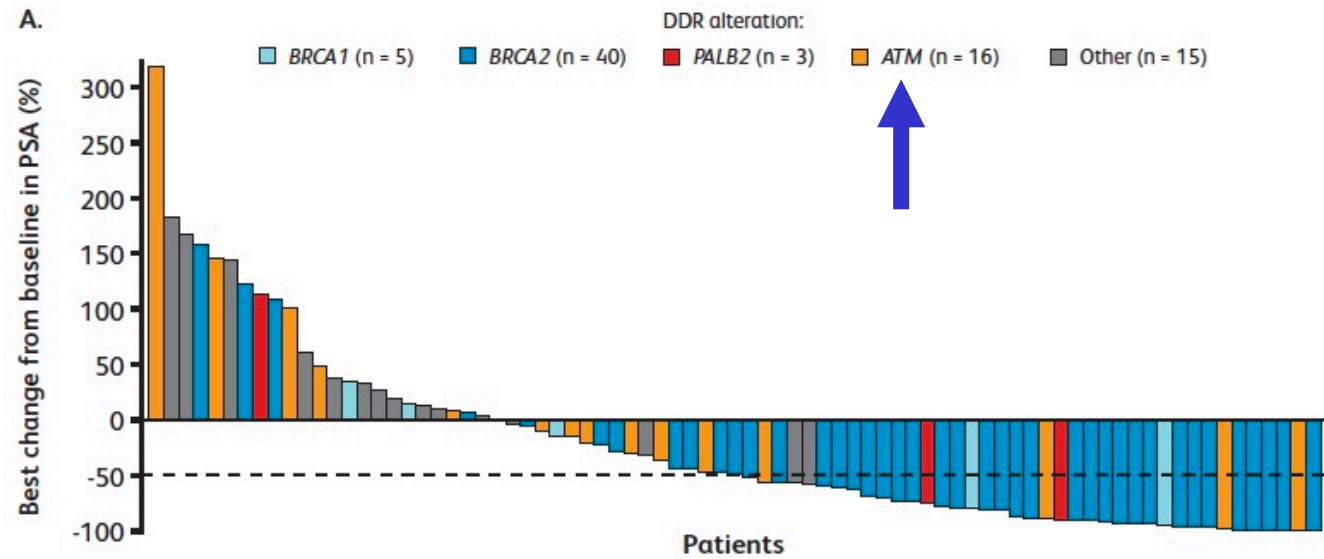
Talazoparib in mCRPC (TALAPRO-1)

BRCA in blue

ATM loss in orange

PALB2 in red

Figure 4. Best Change From Baseline in A. PSA and B. RECIST^a



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Immune Checkpoint Inhibitors in mCRPC

Therapy	Disease State	Disease Response
Pembrolizumab monotherapy ^a	Post-chemotherapy	ORR 9% PSA RR 14%
Pembrolizumab + enzalutamide ^b	Pre-chemotherapy progressing on enzalutamide	ORR 12% PSA RR 14%
Atezolizumab + enzalutamide ^c	Pre- and post-chemotherapy, s/p abiraterone	ORR 14% PSA RR 26%
Atezolizumab + cabozantinib ^d	Pre-chemotherapy s/p enzalutamide or abiraterone	ORR 34% PSA RR 29%

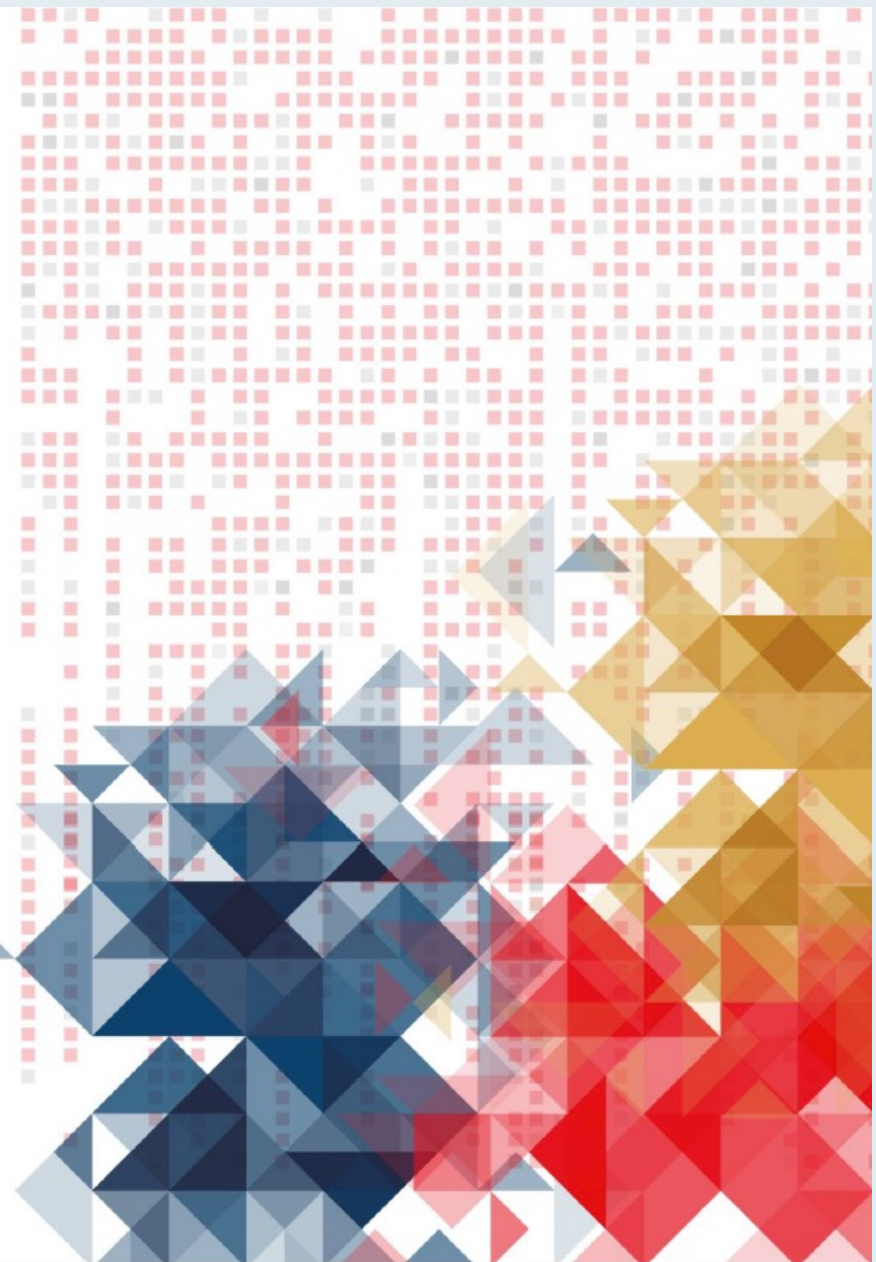
^aJCO 2020: 38(5) 395-405. ^bPresented at the 2021 ASCO Annual Meeting – Virtual; June 4-8, 2021. ^cSweeney C. AACR 2020. IMbassador250. ^dAgarwal ASCO 2020. COSMIC-021

Cabozantinib in combination with atezolizumab in patients with metastatic castration-resistant prostate cancer (mCRPC): results of expanded cohort 6 of the COSMIC-021 Study

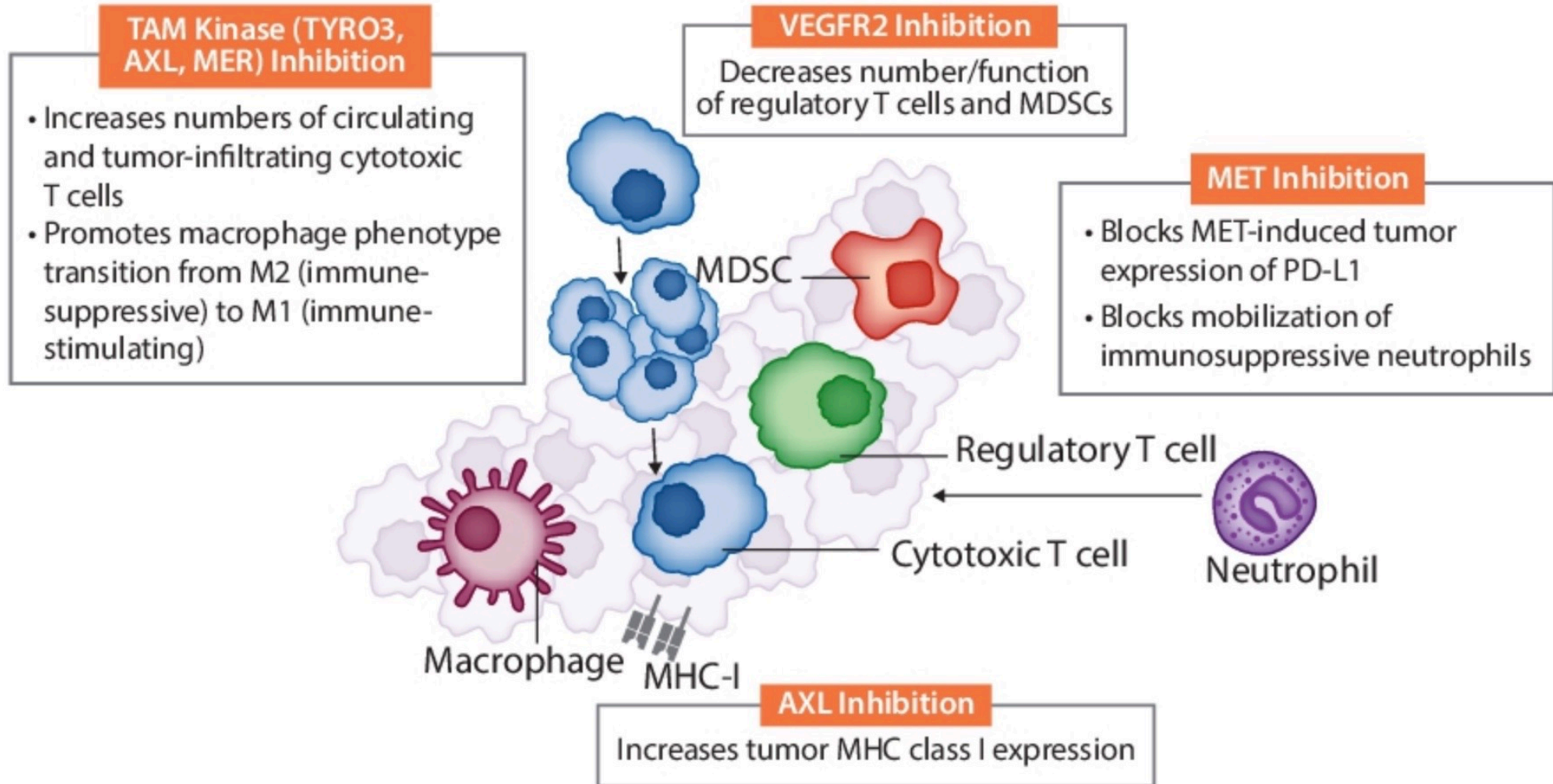
Neeraj Agarwal,¹ Bradley McGregor,² Benjamin L. Maughan,¹ Tanya B. Dorff,³ William Kelly,⁴ Bruno Fang,⁵ Rana R. McKay,⁶ Parminder Singh,⁷ Lance Pagliaro,⁸ Robert Dreicer,⁹ Sandy Srinivas,¹⁰ Yohann Loriot,¹¹ Ulka Vaishampayan,¹² Sanjay Goel,¹³ Dominic Curran,¹⁴ Ashok Panneerselvam,¹⁴ Li-Fen Liu,¹⁴ Toni K. Choueiri,^{2*} Sumanta Pal^{3*}

¹Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, USA; ²Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA; ³City of Hope Comprehensive Cancer Center, Duarte, CA, USA; ⁴Sidney Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA, USA; ⁵Regional Cancer Care Associates, East Brunswick, NJ, USA; ⁶University of California San Diego, San Diego, CA, USA; ⁷Department of Oncology, Mayo Clinic, Scottsdale, AZ, USA; ⁸Department of Oncology, Mayo Clinic, Rochester, MN, USA; ⁹University of Virginia Cancer Center, Charlottesville, VA, USA; ¹⁰Division of Medical Oncology, Stanford University Medical Center, Stanford, CA, USA; ¹¹Department of Cancer Medicine, Gustave Roussy Institute, INSERM 981, University Paris-Saclay, Villejuif, France; ¹²Karmanos Cancer Center, Wayne State University, Detroit, MI, USA (Current affiliation: Division of Hematology/Oncology, University of Michigan, Ann Arbor, MI, USA); ¹³Department of Medical Oncology, Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY, USA; ¹⁴Exelixis, Inc., Alameda, CA, USA

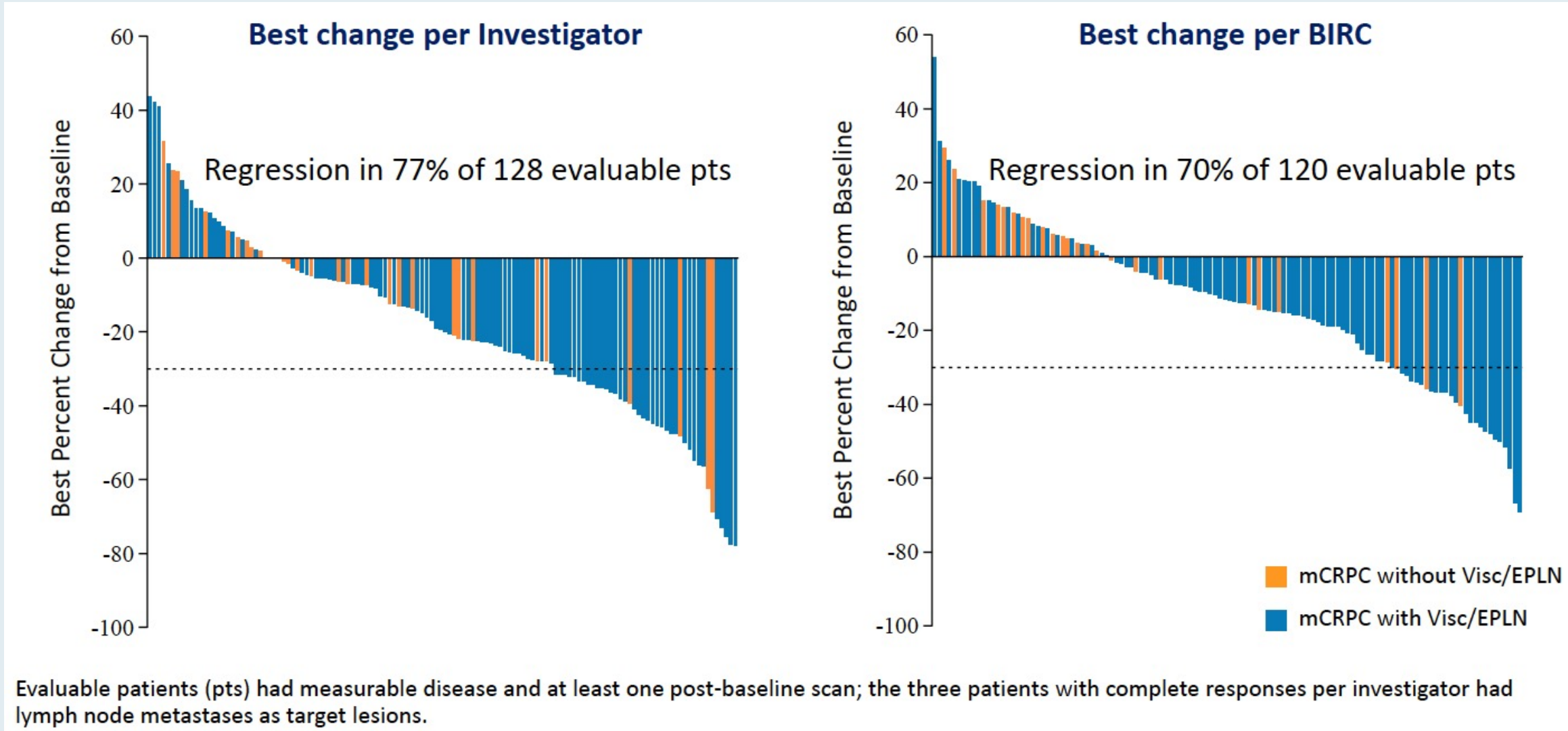
*Co-senior authors



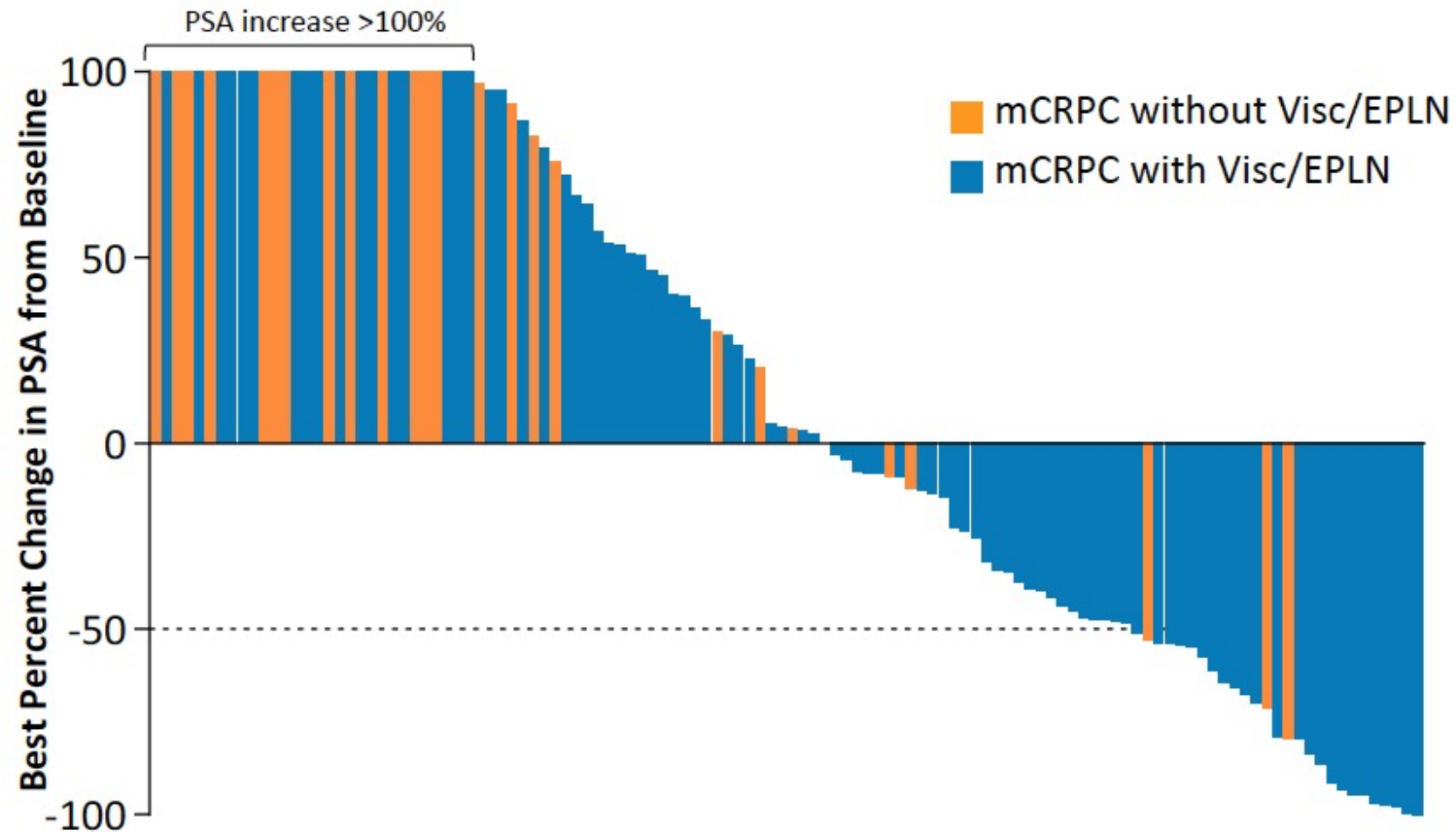
Cabozantinib Targets Pathways Associated with Tumor Immune Suppression



COSMIC-021: Best Change from Baseline in Sum of Target Lesions



COSMIC-021: Best Change in PSA from Baseline

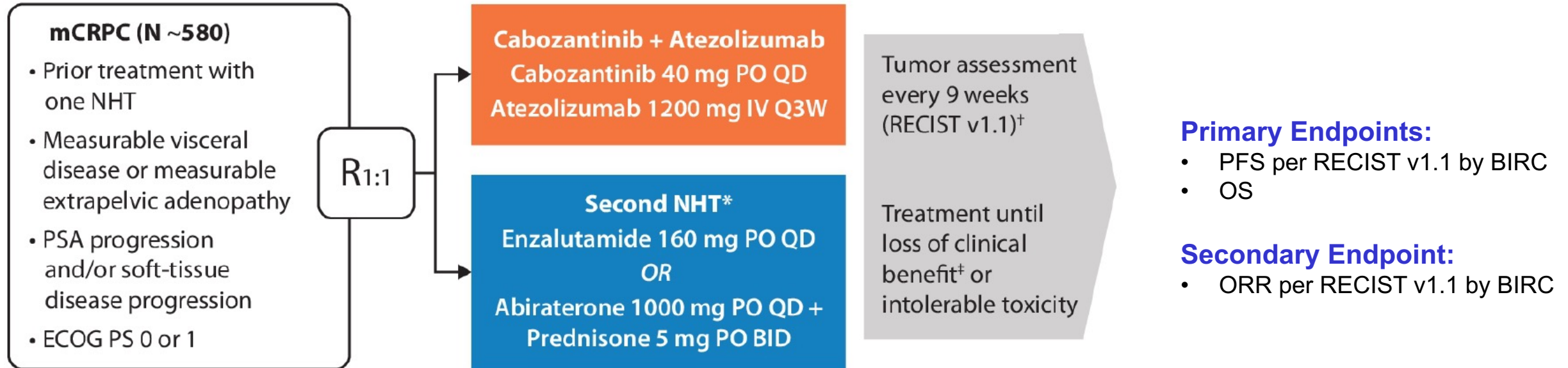


- In 118 patients with post-baseline assessments, 55 (47%) had a decrease in PSA, and 27 (23%) had a decrease $\geq 50\%$
- In 92 patients with Visc/EPLN, 50 (54%) had a decrease in PSA, and 24 (26%) had a decrease $\geq 50\%$

COSMIC-021: Select Treatment-Related Adverse Events

	mCRPC (N=132)	
	Any Grade	Grade 3/4
Any AE, %	95	55
Diarrhea	55	6.8
Fatigue	43	6.8
Nausea	42	0.8
Decreased appetite	34	1.5
Dysgeusia	27	0
Palmar-plantar erythrodysesthesia	25	2.3
Vomiting	23	1.5
Weight decreased	23	1.5
Aspartate aminotransferase increased	20	3.0
Stomatitis	16	0.8
Hypertension	14	6.8
Alanine aminotransferase increased	14	3
Dysphonia	13	0
Hypothyroidism	12	0
Pulmonary embolism	11	8.3

CONTACT-02: Phase III Trial Schema



Stratification

- Liver metastasis (yes, no)
- Prior docetaxel treatment for mCSPC (yes, no)
- Disease stage for which the first NHT was given (mCSPC, M0 CRPC, mCRPC)

*Second NHT must differ from previous NHT taken

[†]Tumor assessment (RECIST v1.1) every 9 weeks for the first 28 weeks then every 12 weeks thereafter

[‡]Patients may be treated beyond progression if there is a clinical benefit in the opinion of the investigator

PRINCE: Interim Analysis of the Phase Ib Study of ^{177}Lu -PSMA-617 in Combination with Pembrolizumab for Metastatic Castration Resistant Prostate Cancer (mCRPC)

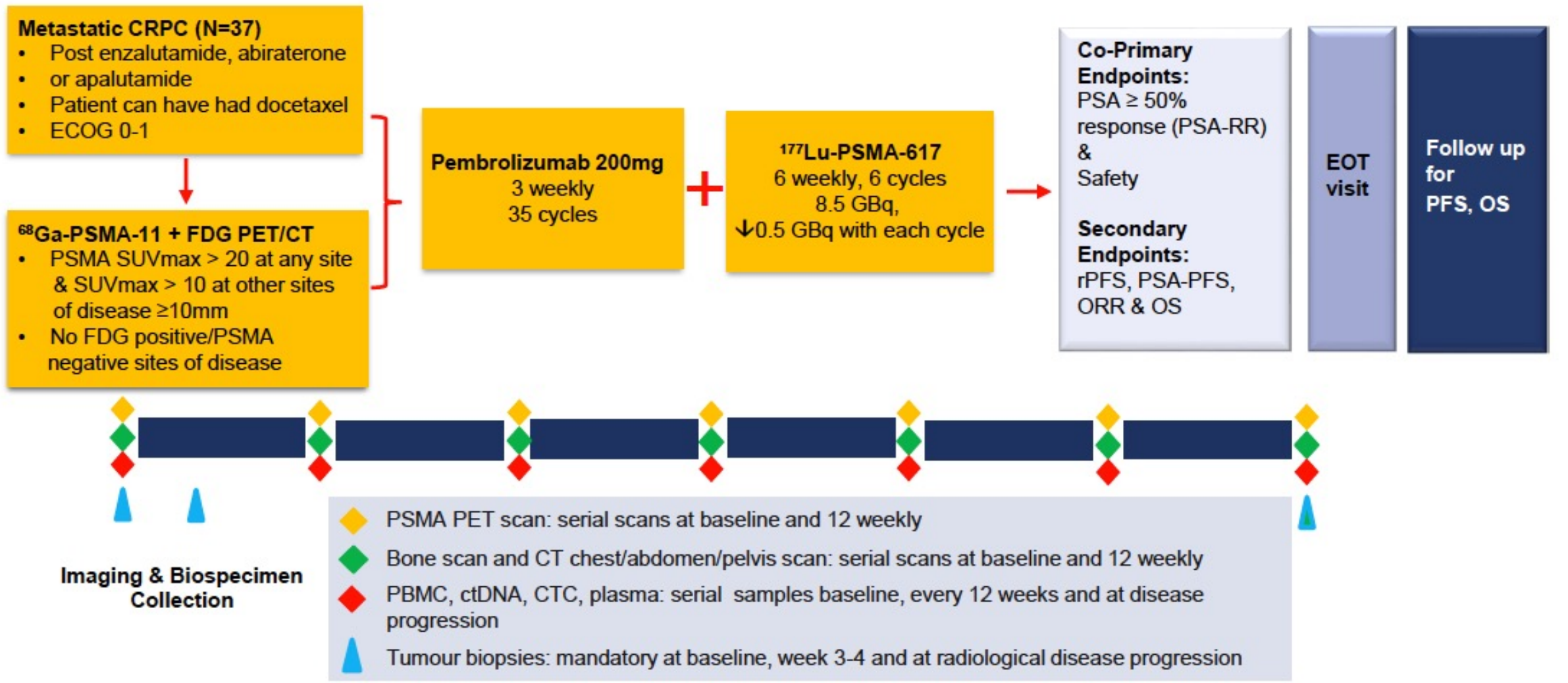
Shahneen Sandhu, Anthony M. Joshua, Louise Emmett, Lavinia Spain, Lisa G. Horvath, Megan Crumbaker, Arsha Anton, Roslyn Wallace, Anupama Pasam, Mathias Bressel, Erin Cassidy, Patricia Banks, Aravind Ravi Kumar, Ramin Alipour, Tim Akhurst, Grace Kong, Ian D. Davis, Scott Williams, Rod Hicks, Michael S. Hofman

Abstract 5770

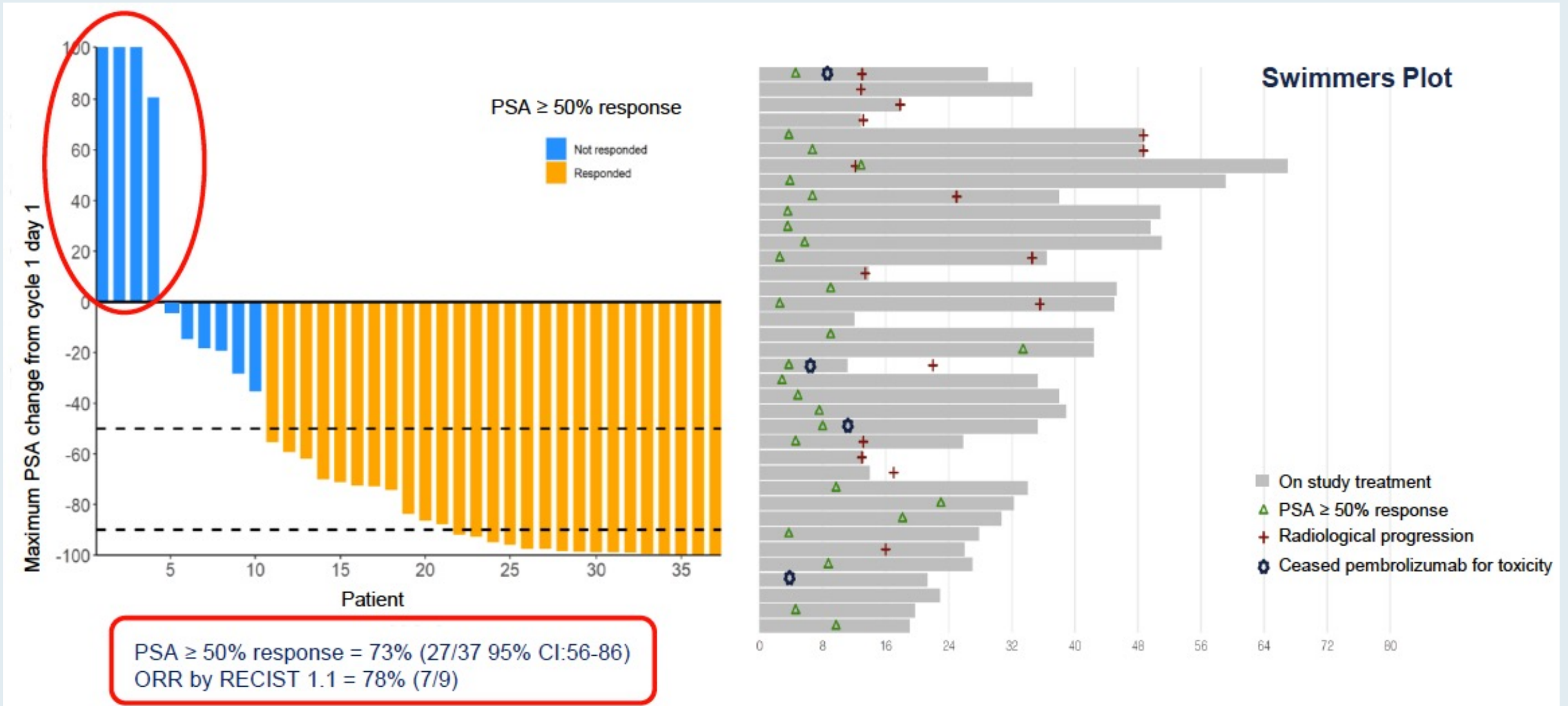


Presented by: Shahneen Sandhu

PSMA-Lutetium Radionuclide Therapy and ImmuNotherapy for Prostate CancEr (PRINCE) Trial Schema



PRINCE: PSA Response Rate (Primary Endpoint)



PRINCE: Treatment-Related Adverse Events

TRAE term	Grade 1 (%)	Grade 2 (%)	Grade 3 (%)	N=37 (%)
Xerostomia	21 (57%)	7 (19%)	-	28 (76%)
Fatigue	11 (29 %)	3 (8%)	2 (5%)	16 (43%)
Rash	5 (14%)	4 (11%)	-	9 (25%)
Nausea	8 (21%)	1 (3%)	-	9 (24%)
Pruritis	6 (16%)	1 (3%)	-	7 (19%)
Anorexia	3 (8%)	3 (8%)	-	6 (16%)
Thrombocytopenia	4 (11%)	1(3%)	-	5 (14%)
Bone pain (flare)	4 (11%)	-	-	4 (11%)
Aspartate aminotransferase elevation	2 (5%)	2 (5%)	-	4 (11%)
Dry eye	3 (8%)	-	-	3 (8%)
Dysgeusia	2 (5%)	1 (3%)	-	3 (8%)
Weight loss	2 (5%)	1 (3%)	-	3 (8%)
Anemia	-	2 (5%)	1(3%)	3 (8%)
Alanine aminotransferase elevation	2 (5%)	1(3%)	-	3 (8%)
Amylase elevation	1 (3%)	1 (3%)	1 (3%)	3 (8%)
Arthralgia	3 (8%)	-	-	3 (8%)
Neutropenia	1 (3%)	-	-	1 (3%)

Pembrolizumab cycles: Median (range)	8 (1 - 22)
¹⁷⁷Lu-PSMA-617 cycles: Median (range)	4 (2 - 6)
Discontinuation for toxicity: Pembrolizumab, n (%) ¹⁷⁷ Lu-PSMA-617, n (%)	4 (11%) 0 (0%)

- Treatment related adverse events (TRAEs) in by worst grade affecting > 5% and all hematological toxicity
- There were no grade 4 TRAEs or treatment related deaths

Meet The Professor with Dr Sartor

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- Key Relevant Data Sets

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MODULE 4: Other Novel Agents and Strategies Under Investigation

MODULE 5 Journal Club with Dr Sartor

MODULE 6: Faculty Survey

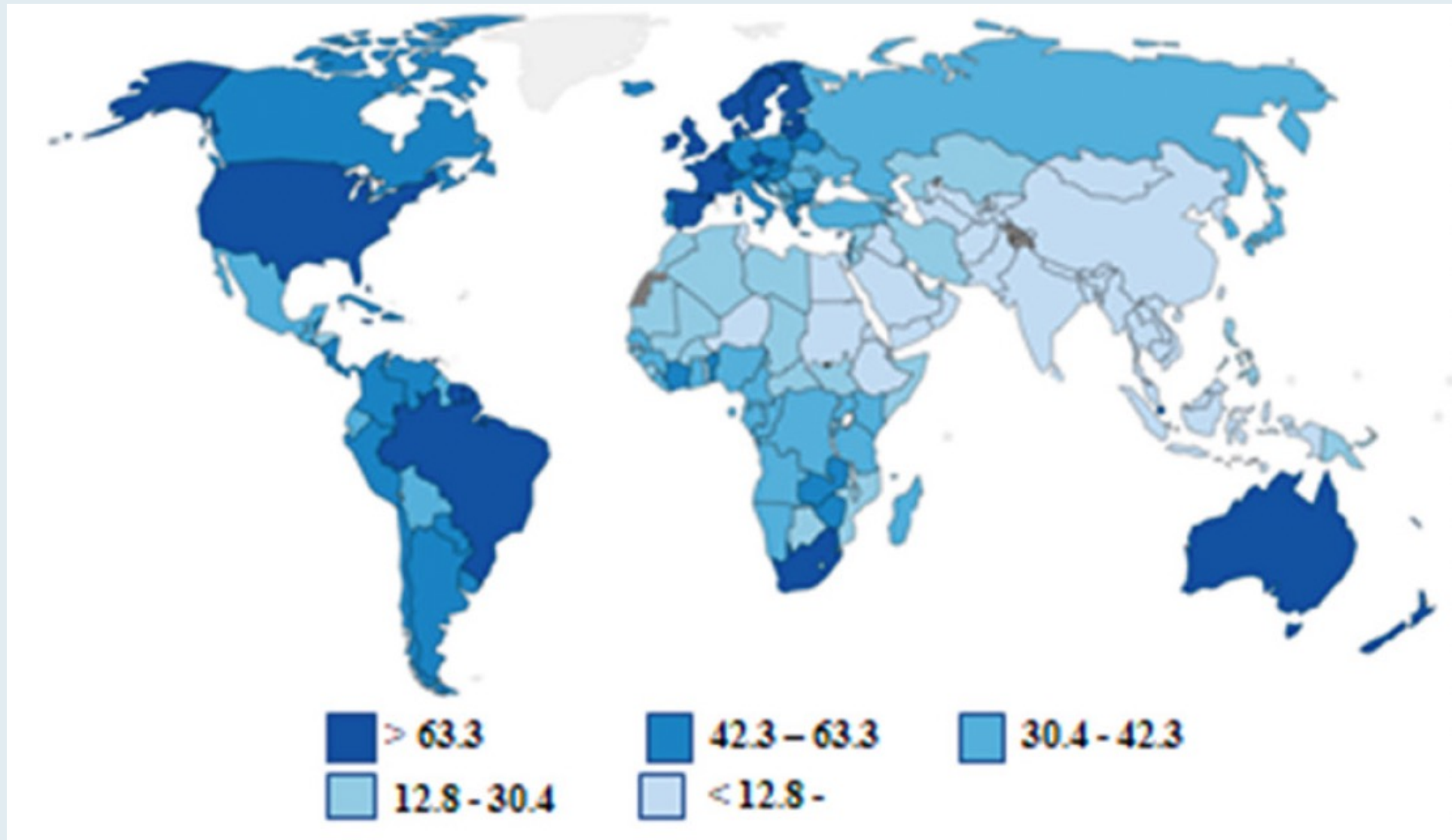
MODULE 7: Appendix

Review Article

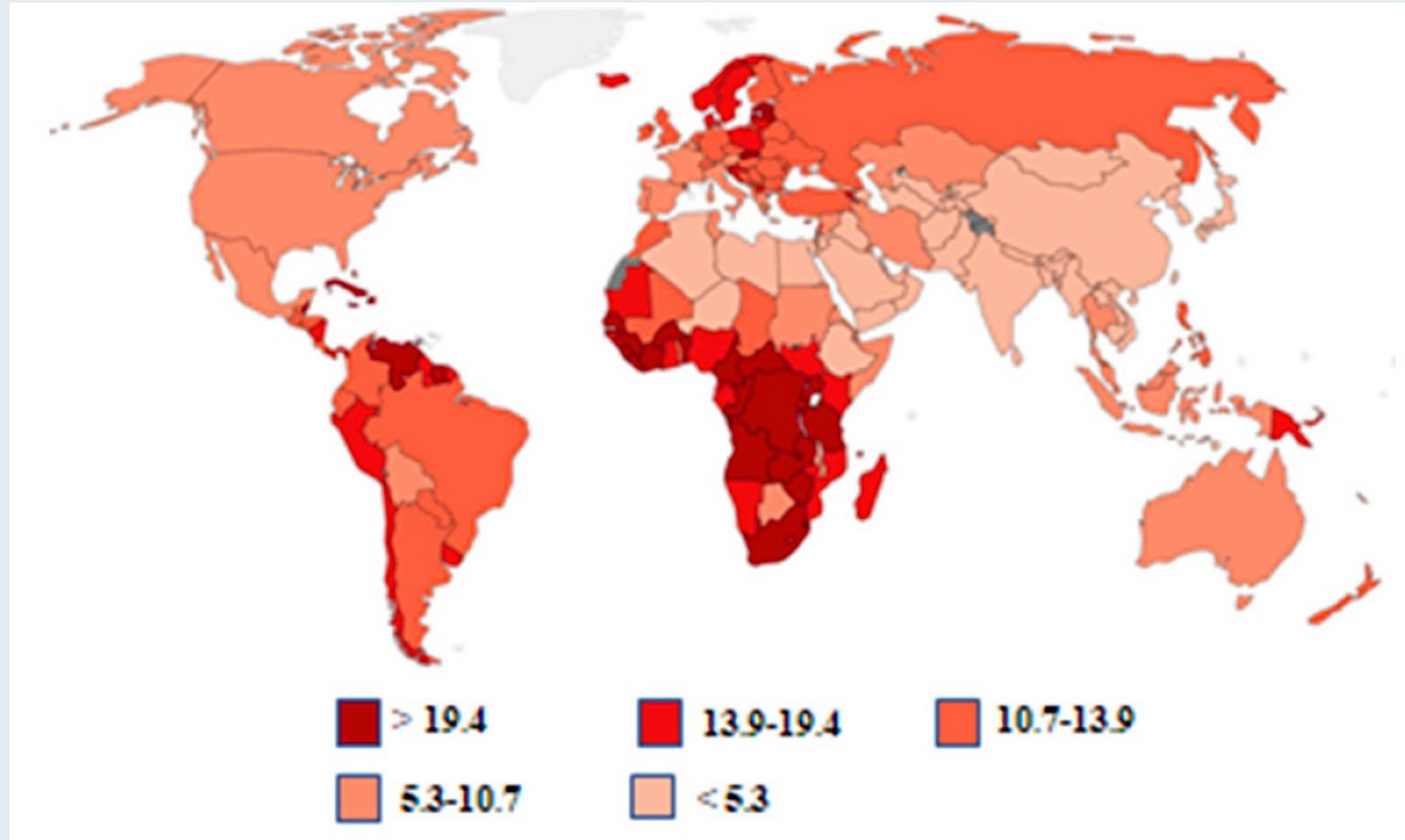
Prostate cancer racial, socioeconomic, geographic disparities: targeting the genomic landscape and splicing events in search for diagnostic, prognostic and therapeutic targets

Rahaba Marima¹, Rodney Hull¹, Kgomotso Mathabe², Botle Setlai³, Jyotsna Batra^{4,5}, Oliver Sartor^{1,6}, Ravi Mehrotra^{1,7}, Zodwa Dlamini¹

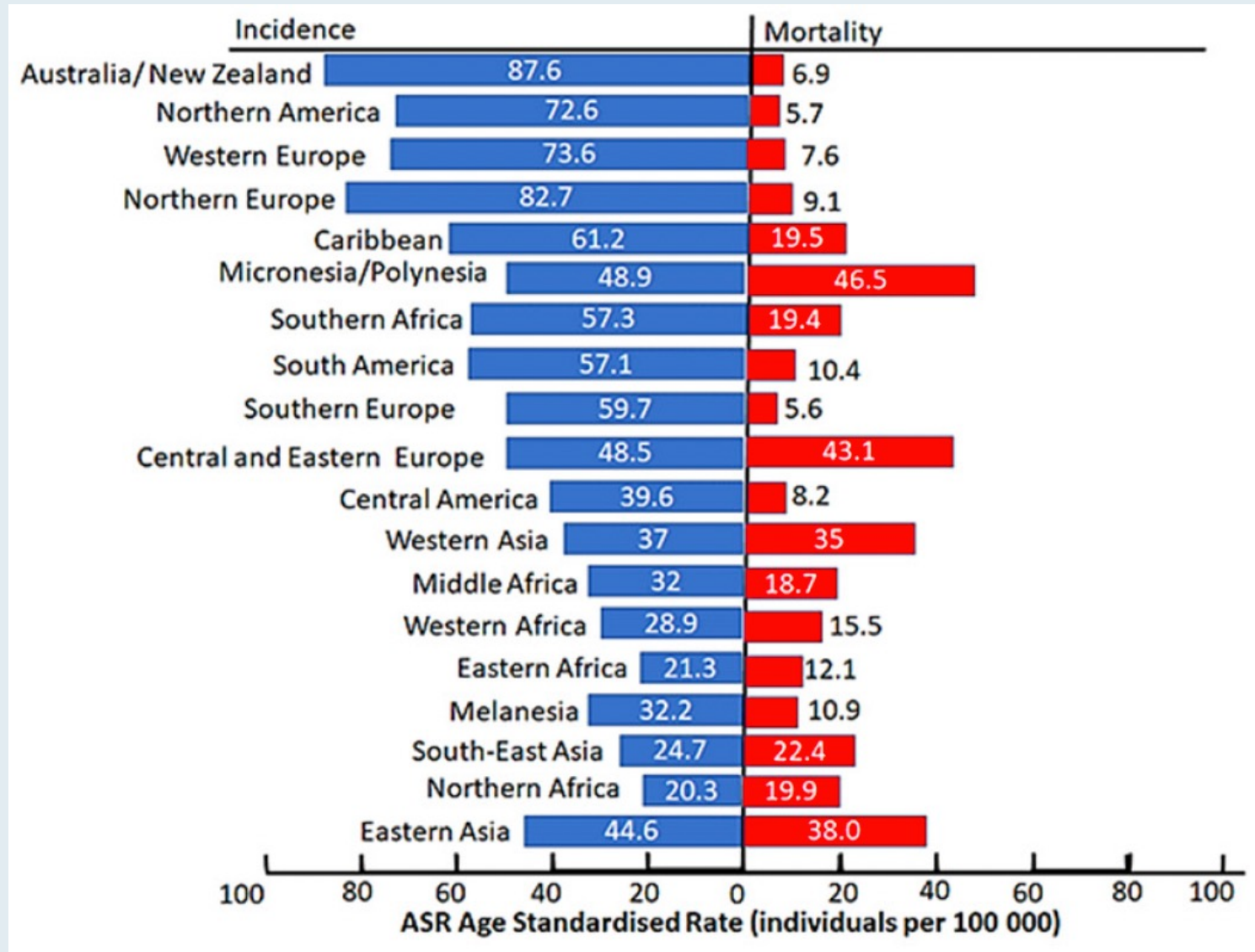
Worldwide Age Standardized Rate per 100,000 Men for Incidence



Worldwide Age Standardized Rate per 100,000 Men for Mortality

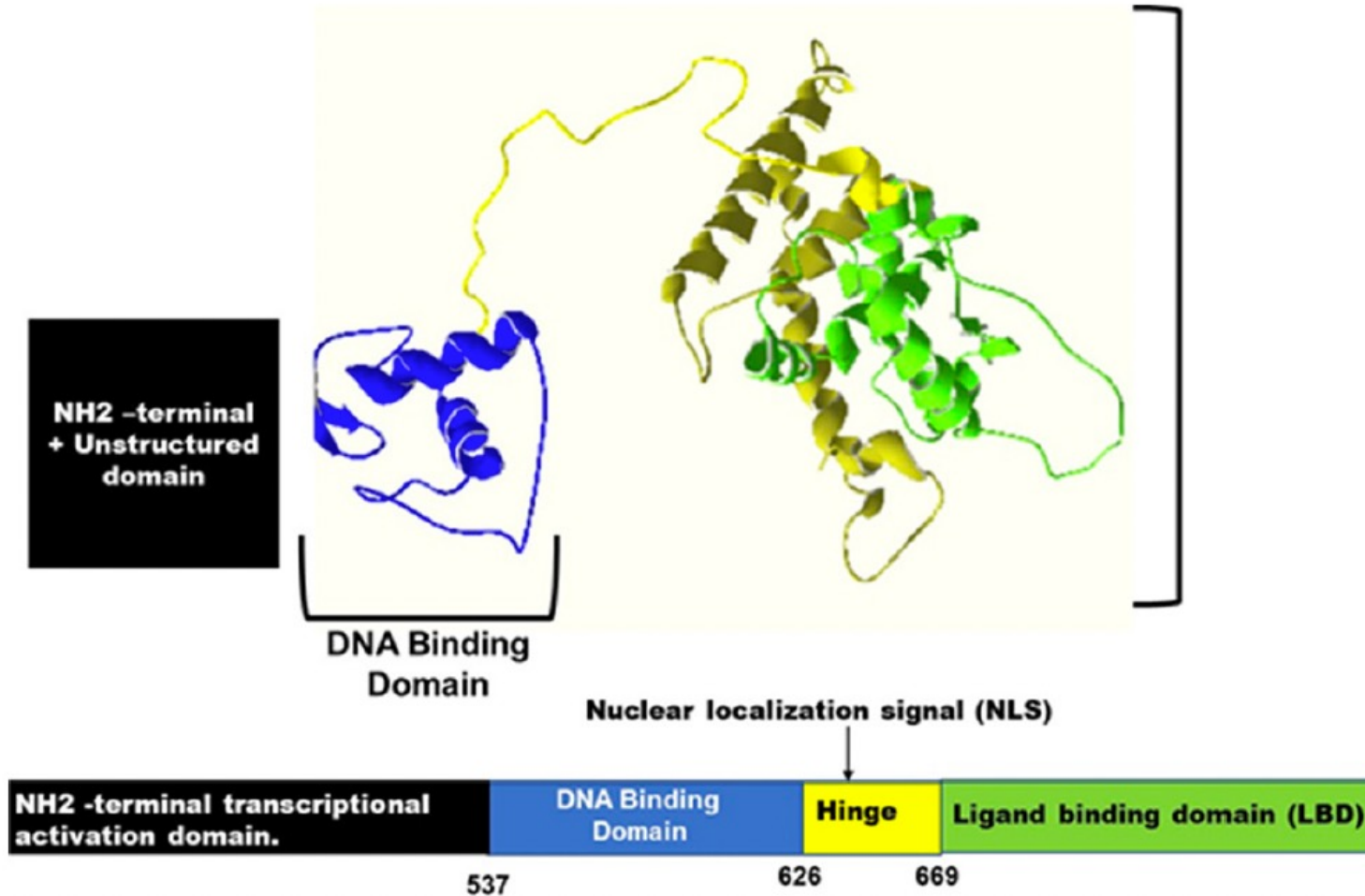


Incidence and Mortality Rates Based on Geographic Location

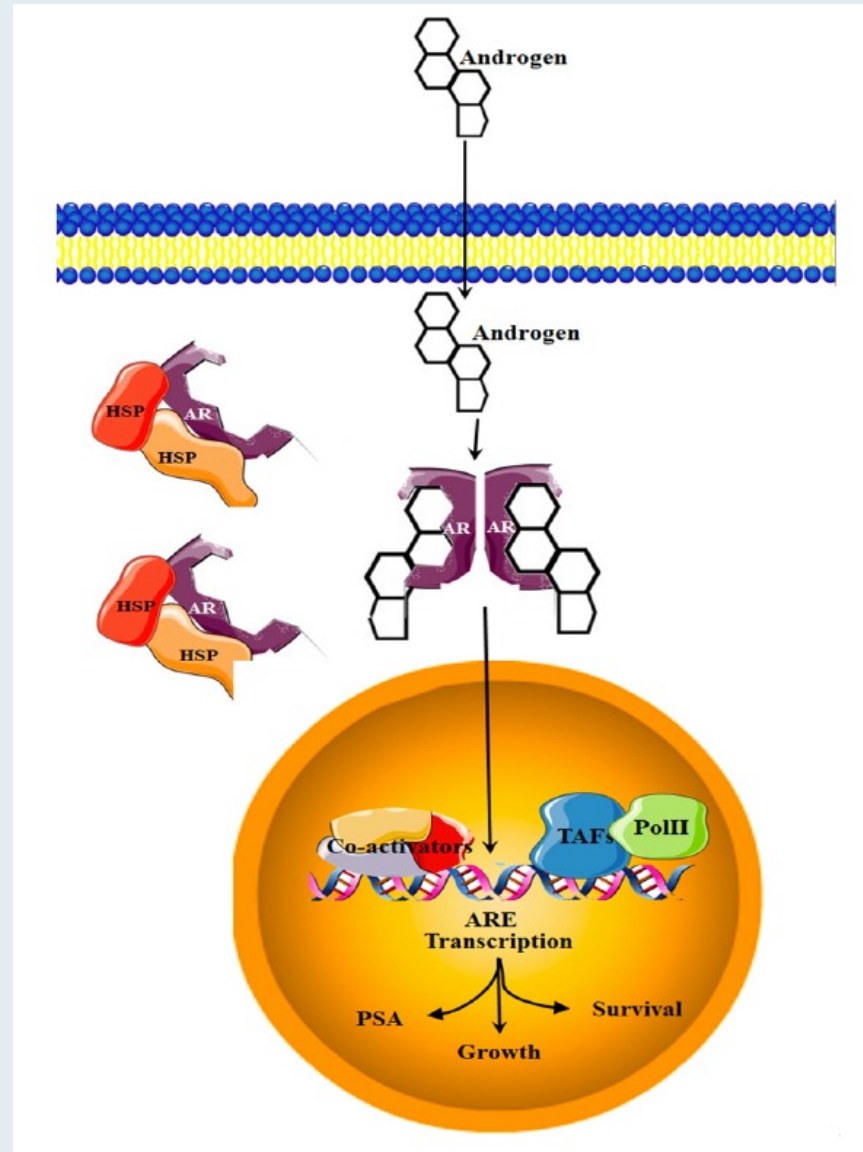


Structure of the Androgen Receptor

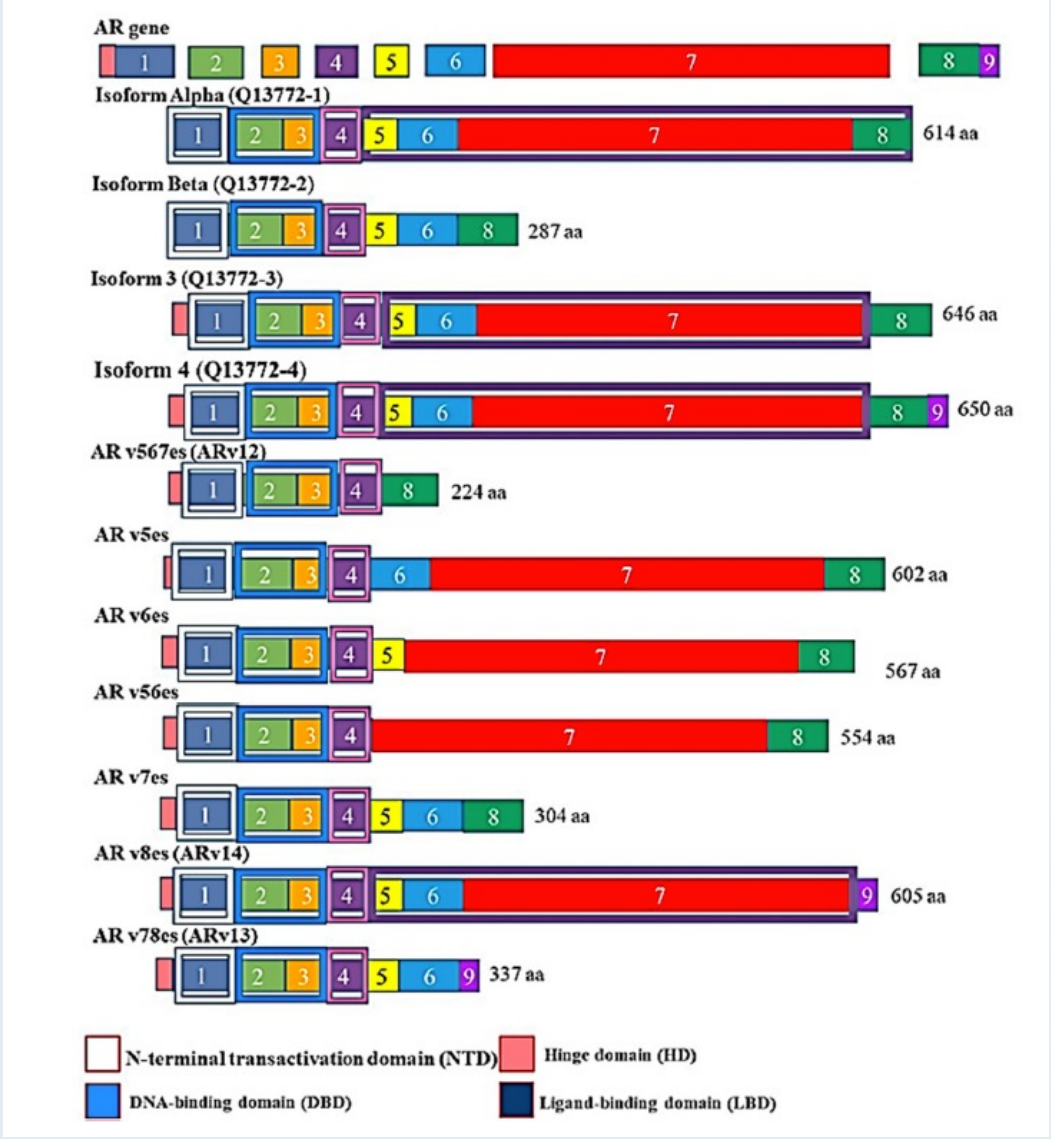
Prostate cancer disparities and genomic landscape



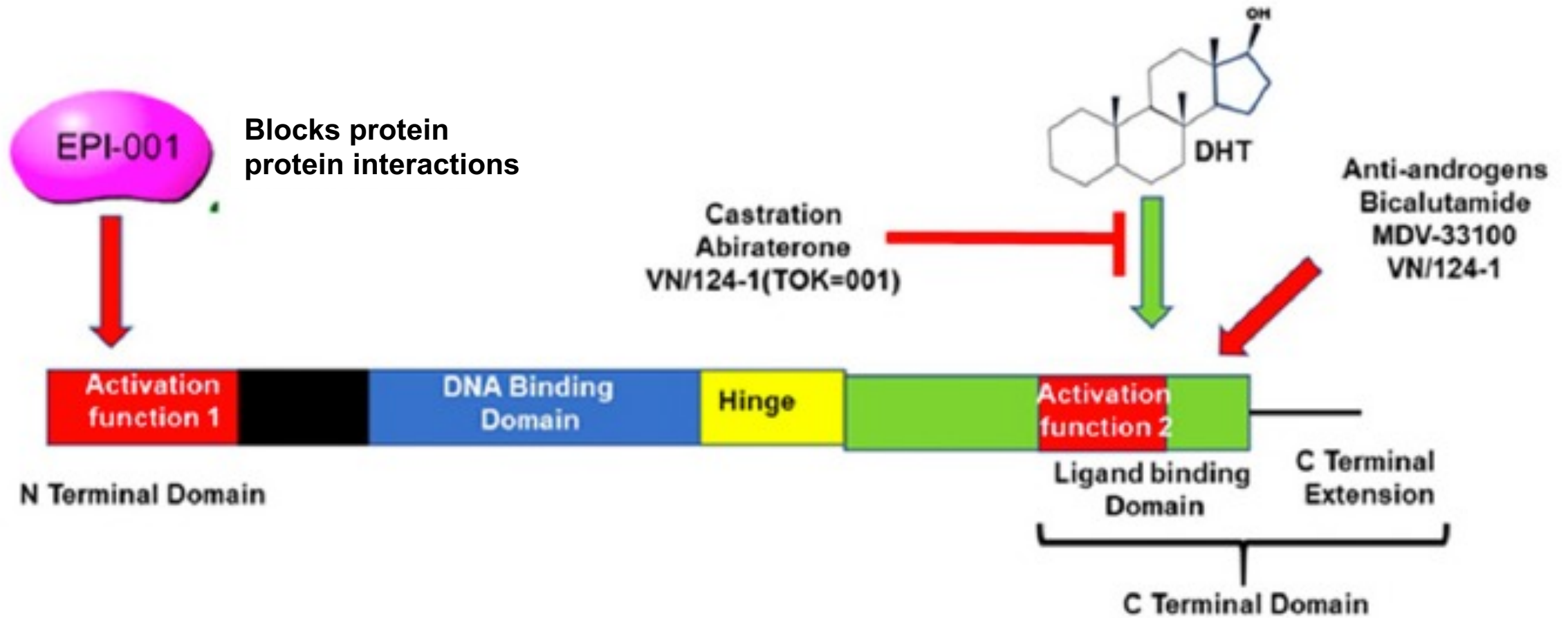
Androgen Receptor Signaling



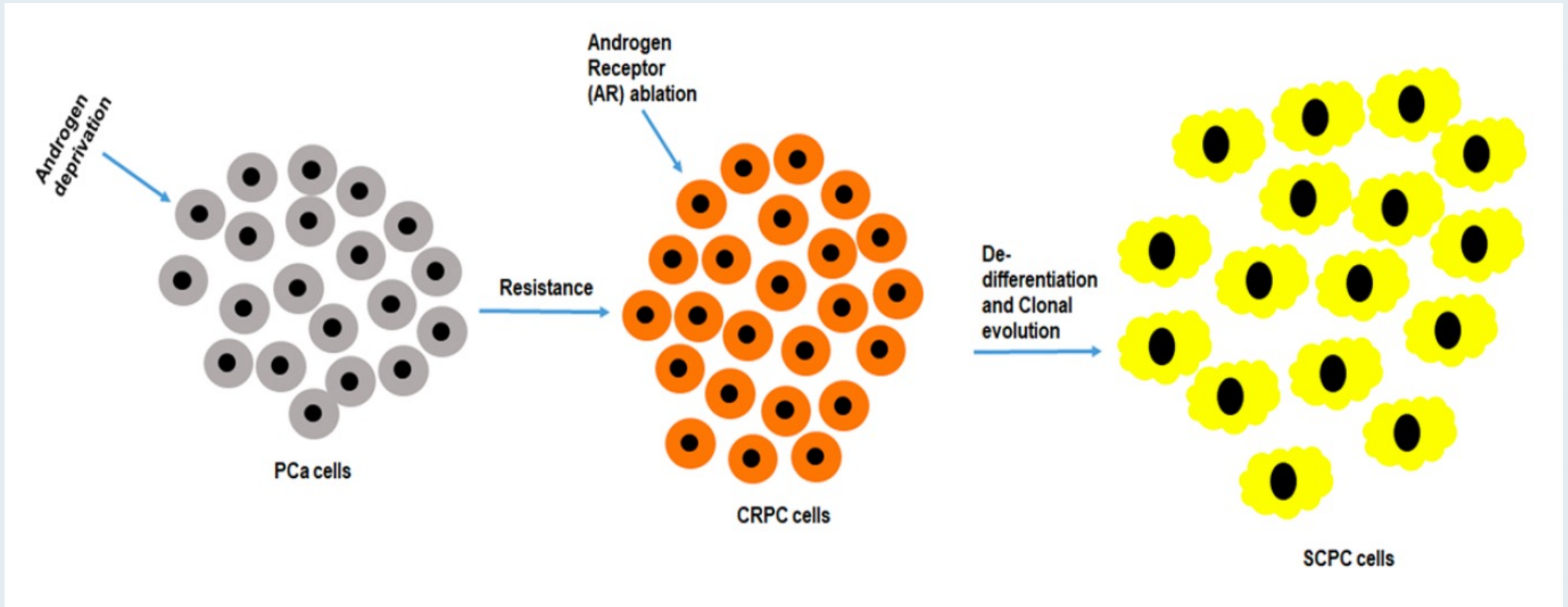
Human Androgen Receptor Full Length with Splice Variants



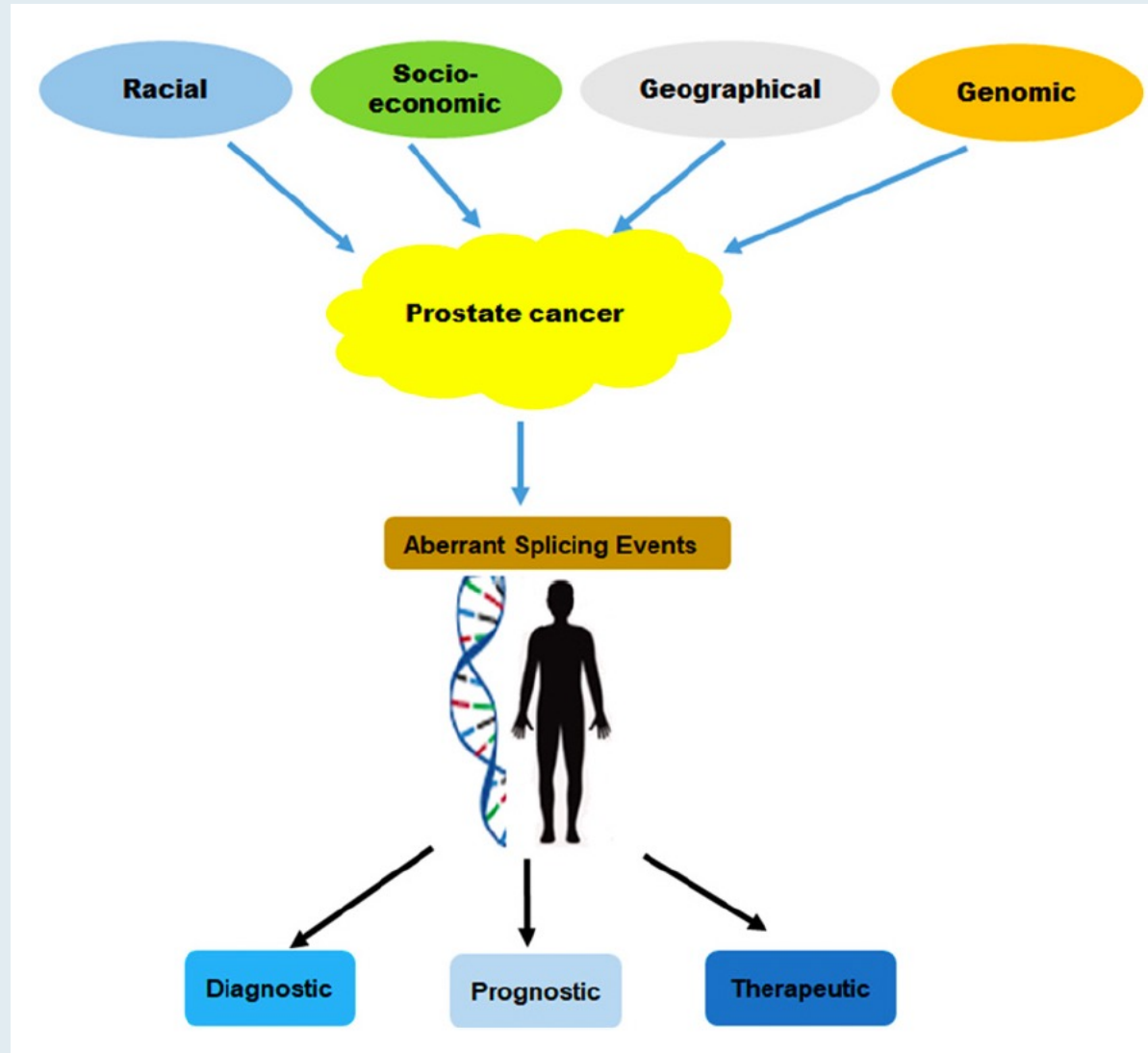
Structure of the Androgen Receptor (AR) Showing Binding Sites of Inhibitors and Activators of AR Signaling



Dedifferentiation and Clonal Evolution of Prostate Cancer Cells



Genetic and Nongenetic Factors Contributing to Prostate Cancer Development and Progression



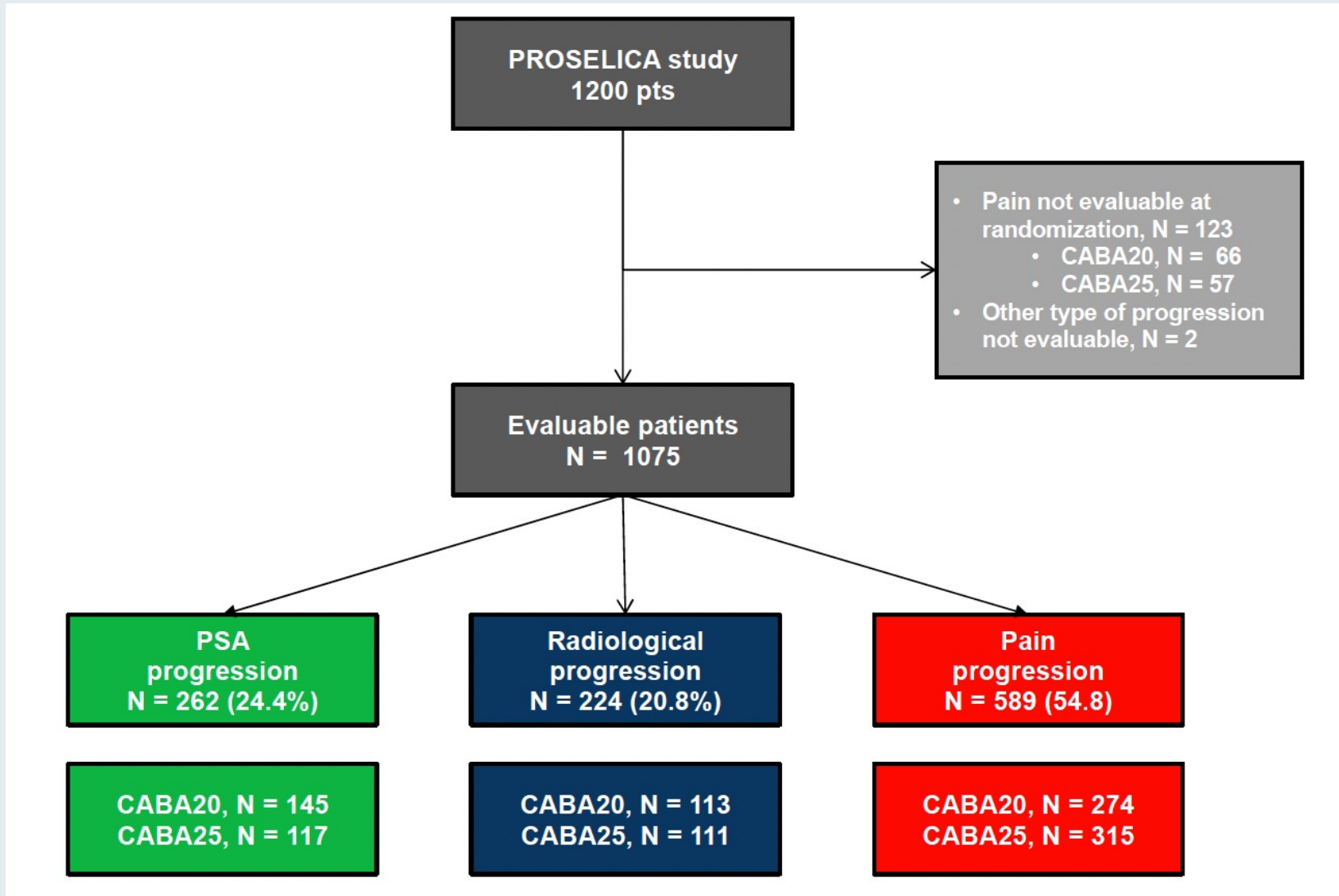
Journal Club with Dr Sartor (Continued)

- Jaeger E et al. **ctDNA pathogenic variants (PVs) in homologous recombination repair (HRR) genes in patients with metastatic CRPC.** Genitourinary Cancers Symposium 2021;Abstract 138.
- Ledet EM et al. **Comparison of germline mutations in African American and Caucasian men with metastatic prostate cancer.** *Prostate* 2021;81(7):433-9.
- Lin E et al. **Identification of somatic gene signatures in circulating cell-free DNA associated with disease progression in metastatic prostate cancer by a novel machine learning platform.** *Oncologist* 2021;26(9):751-60.

Journal Club with Dr Sartor (Continued)

- Sokolova AO et al. **Efficacy of systemic therapies in men with metastatic castration resistant prostate cancer harboring germline ATM versus BRCA2 mutations.** *Prostate* 2021;81(16):1382-9.
- Delanoy N et al. **Pain progression at initiation of cabazitaxel in metastatic castration-resistant prostate cancer (mCRPC): A post hoc analysis of the PROSELICA study.** *Cancers (Basel)* 2021;13(6):1284.
- Thiery-Vuillemin A et al. **Post hoc health-related quality of life analysis according to response among patients with prostate cancer in the PROSELICA and FIRSTANA studies.** *Oncologist* 2021;26(7):e1179-88.

PROSELICA Flow Chart



Journal Club with Dr Sartor (Continued)

- Sartor O et al. **Lutetium-177–PSMA-617 for metastatic castration-resistant prostate cancer.** *N Engl J Med* 2021;385(12):1091-103.
- Sartor AO et al. **A multicenter, randomized, controlled phase II study: Efficacy and safety of PSMA-targeted radioligand therapy I-131-1095 (1095) plus enzalutamide (enza) in 18F-DCFPyL PSMA scan avid, metastatic castration-resistant prostate cancer (mCRPC) patients post-abiraterone (abi) progression (ARROW).** Genitourinary Cancers Symposium 2021;Abstract TPS187.
- Sartor AO. **PSMA-targeted radiotherapy in metastatic castration-resistant prostate cancer.** *Clin Adv Hematol Oncol* 2021;19(8):494-6.
- Chi KN et al. **Study evaluating metastatic castrate resistant prostate cancer (mCRPC) treatment using 177Lu-PNT2002 PSMA therapy after second-line hormonal treatment (SPLASH).** ASCO 2021;Abstract TPS5087.

Journal Club with Dr Sartor (Continued)

- Fizazi K et al. **Health-related quality of life (HRQoL), pain and safety outcomes in the phase 3 VISION study of 177Lu-PSMA-617 in patients with metastatic castration-resistant prostate cancer.** ESMO 2021;Abstract 576MO.
- Tagawa ST et al. **Final results of phase I/II trial of fractionated dose 177Lu-PSMA-617 for metastatic castration-resistant prostate cancer (mCRPC).** ESMO 2021;Abstract 600P.

Journal Club with Dr Sartor (Continued)

- Denmeade SR et al. **TRANSFORMER: A randomized phase II study comparing bipolar androgen therapy versus enzalutamide in asymptomatic men with castration-resistant metastatic prostate cancer.** *J Clin Oncol* 2021;39(12):1371-82.
- Buelow B et al. **TNB585.001: A multicenter, phase 1, open-label, dose-escalation and expansion study of tnb-585, a bispecific T-cell engager targeting PSMA in subjects with metastatic castrate resistant prostate cancer.** ASCO 2021;Abstract TPS5092.
- Fong L et al. **A Phase Ib study of atezolizumab with radium-223 dichloride in men with metastatic castration-resistant prostate cancer.** *Clin Cancer Res* 2021;27(17):4746-56.

Journal Club with Dr Sartor (Continued)

- Marshall CH et al. **Randomized phase II trial of sipuleucel-T with or without radium-223 in men with bone-metastatic castration-resistant prostate cancer.** *Clin Cancer Res* 2021;27(6):1623-30.
- Sartor O et al. **Clinical outcomes, management, and treatment patterns in patients with metastatic castration-resistant prostate cancer treated with radium-223 in community compared to academic settings.** *Prostate* 2021;81(10):657-66.

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MODULE 7: Appendix

A 65-year-old man with MSS prostate cancer metastatic to the bone and a germline BRCA2 mutation who is receiving an LHRH agonist alone for hormone-sensitive disease develops new low-volume asymptomatic bone metastases. Which systemic treatment would you most likely recommend?

 Dr Armstrong	Enzalutamide or Sip-T → enzalutamide	 Prof Fizazi	Abiraterone or enzalutamide
 Dr Bryce	Abiraterone or enzalutamide	 Dr Morgans	Abiraterone
 Prof Chowdhury	Enzalutamide	 Dr Sartor	Abiraterone

Sip-T = sipuleucel-T

A 65-year-old man with MSS prostate cancer metastatic to the bone and a germline BRCA2 mutation who is receiving an LHRH agonist alone for hormone-sensitive disease develops new high-volume symptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Enzalutamide



Prof Fizazi

Abiraterone or enzalutamide



Dr Bryce

Abiraterone



Dr Morgans

Abiraterone



Prof Chowdhury

Enzalutamide



Dr Sartor

Abiraterone

A 65-year-old man with BRCA wild-type, MSS prostate cancer metastatic to the bone who is receiving abiraterone/dexamethasone for hormone-sensitive metastatic disease develops new low-volume asymptomatic bone metastases. Which systemic treatment would you most likely recommend?

 Dr Armstrong	Sipuleucel-T	 Prof Fizazi	Docetaxel
 Dr Bryce	Docetaxel	 Dr Morgans	Sipuleucel-T
 Prof Chowdhury	Docetaxel	 Dr Sartor	Docetaxel

A 65-year-old man with MSS prostate cancer metastatic to the bone and a germline BRCA2 mutation who is receiving abiraterone/dexamethasone for hormone-sensitive metastatic disease develops new low-volume asymptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Sipuleucel-T followed by olaparib or docetaxel at further progression



Prof Fizazi

Olaparib



Dr Bryce

Olaparib



Dr Morgans

Olaparib



Prof Chowdhury

Olaparib



Dr Sartor

Olaparib

A 65-year-old man with BRCA wild-type, MSS prostate cancer metastatic to the bone who is receiving abiraterone/dexamethasone for hormone-sensitive metastatic disease develops new high-volume symptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Docetaxel



Dr Bryce

Docetaxel



Prof Chowdhury

Docetaxel



Prof Fizazi

Docetaxel



Dr Morgans

Radium-223



Dr Sartor

Docetaxel

A 65-year-old man with MSS prostate cancer metastatic to the bone and a germline BRCA2 mutation who is receiving abiraterone/dexamethasone for hormone-sensitive metastatic disease develops new high-volume symptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Olaparib



Prof Fizazi

Olaparib



Dr Bryce

Olaparib



Dr Morgans

Radium-223



Prof Chowdhury

Olaparib



Dr Sartor

Olaparib

A 65-year-old man with BRCA wild-type, MSS prostate cancer metastatic to the bone who is receiving enzalutamide for hormone-sensitive metastatic disease develops new low-volume asymptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Sipuleucel-T



Prof Fizazi

Docetaxel



Dr Bryce

Docetaxel



Dr Morgans

Sipuleucel-T



Prof Chowdhury

Docetaxel



Dr Sartor

Docetaxel

A 65-year-old man with MSS prostate cancer metastatic to the bone and a germline BRCA2 mutation who is receiving enzalutamide for hormone-sensitive metastatic disease develops new low-volume asymptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Sipuleucel-T



Prof Fizazi

Olaparib



Dr Bryce

Olaparib



Dr Morgans

Olaparib



Prof Chowdhury

Olaparib



Dr Sartor

Olaparib

A 65-year-old man with BRCA wild-type, MSS prostate cancer metastatic to the bone who is receiving enzalutamide for hormone-sensitive disease develops new high-volume symptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Docetaxel



Prof Fizazi

Docetaxel



Dr Bryce

Docetaxel



Dr Morgans

Radium-223



Prof Chowdhury

Docetaxel



Dr Sartor

Docetaxel

A 65-year-old man with MSS prostate cancer metastatic to the bone and a germline BRCA2 mutation who is receiving enzalutamide for hormone-sensitive disease develops new high-volume symptomatic bone metastases. Which systemic treatment would you most likely recommend?



Dr Armstrong

Olaparib



Prof Fizazi

Olaparib



Dr Bryce

Olaparib



Dr Morgans

Radium-223



Prof Chowdhury


Olaparib



Dr Sartor

Olaparib

Which of the following genomic evaluations do you generally order for patients with mCRPC and no specific family history of cancer?

 Dr Armstrong	Germline and somatic panel	 Prof Fizazi	Germline and somatic panel
 Dr Bryce	Germline and somatic panel	 Dr Morgans	BRCA germline and somatic
 Prof Chowdhury	Somatic panel	 Dr Sartor	Germline and somatic panel

At what point, if any, do you generally recommend a PARP inhibitor to a patient with metastatic prostate cancer and a germline BRCA mutation?



Dr Armstrong

After at least 1 line of both hormonal therapy and chemotherapy



Dr Bryce

After 1 line of hormonal therapy



Prof Chowdhury

After 1 line of hormonal therapy



Prof Fizazi

After 1 line of hormonal therapy



Dr Morgans

After 1 line of hormonal therapy



Dr Sartor

After 1 line of hormonal therapy

For a patient with metastatic prostate cancer and a germline BRCA mutation to whom you would administer a PARP inhibitor, which treatment strategy would you likely use?



Dr Armstrong

Olaparib monotherapy



Prof Fizazi

Olaparib monotherapy



Dr Bryce

Olaparib or rucaparib monotherapy



Dr Morgans

Olaparib monotherapy



Prof Chowdhury

Olaparib monotherapy



Dr Sartor

Olaparib monotherapy

Have you administered or would you administer a PARP inhibitor to a patient with metastatic prostate cancer and a high LOH score?



Dr Armstrong

I have not and would not



Prof Fizazi

I have not and would not



Dr Bryce

I have not but would for the right patient



Dr Morgans

I have not and would not



Prof Chowdhury







I have not and would not



Dr Sartor

I have not and would not

Have you administered or would you administer a PARP inhibitor to a patient with metastatic prostate cancer that is HRD (homologous recombination deficiency) positive?

 Dr Armstrong	I have (mCRPC) I have not (mHSPC)	 Prof Fizazi	I have not and would not
 Dr Bryce	I have not but would for the right patient	 Dr Morgans	I have not and would not
 Prof Chowdhury	I have not and would not	 Dr Sartor	I have

In general, when administering a PARP inhibitor to a patient with metastatic prostate cancer, do you discuss the risk of developing myelodysplastic syndromes?



Dr Armstrong

Yes



Prof Fizazi

No



Dr Bryce

Yes



Dr Morgans

No



Prof Chowdhury

Yes



Dr Sartor

No

Regulatory and reimbursement issues aside, in which line of therapy would you administer 177Lu-PSMA-617 for patients with metastatic prostate cancer?



Regulatory and reimbursement issues aside, in which line of therapy would you administer 177Lu-PSMA-617 for a patient with metastatic prostate cancer and a germline BRCA mutation?



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MODULE 7: Appendix

Abiraterone acetate plus prednisolone with or without enzalutamide added to androgen deprivation therapy compared to ADT alone for men with high-risk nonmetastatic prostate cancer: primary combined analysis from two comparisons in the STAMPEDE platform protocol

Gerhardt Attard, Louise Brown, Noel Clarke, Laura Murphy, William Cross, Rob Jones, Silke Gillessen, J.Martin Russell, Adrian Cook, Jo Bowen, Anna Lydon, Ian Pedley, Omi Parikh, Simon Chowdhury, Zafar Malik, David Matheson, Chris Parker, Matthew Sydes, Mahesh Parmar, Nicholas James **on behalf of the STAMPEDE investigators***

Conducted by Medical Research Council Trials Unit at University College London, U.K.

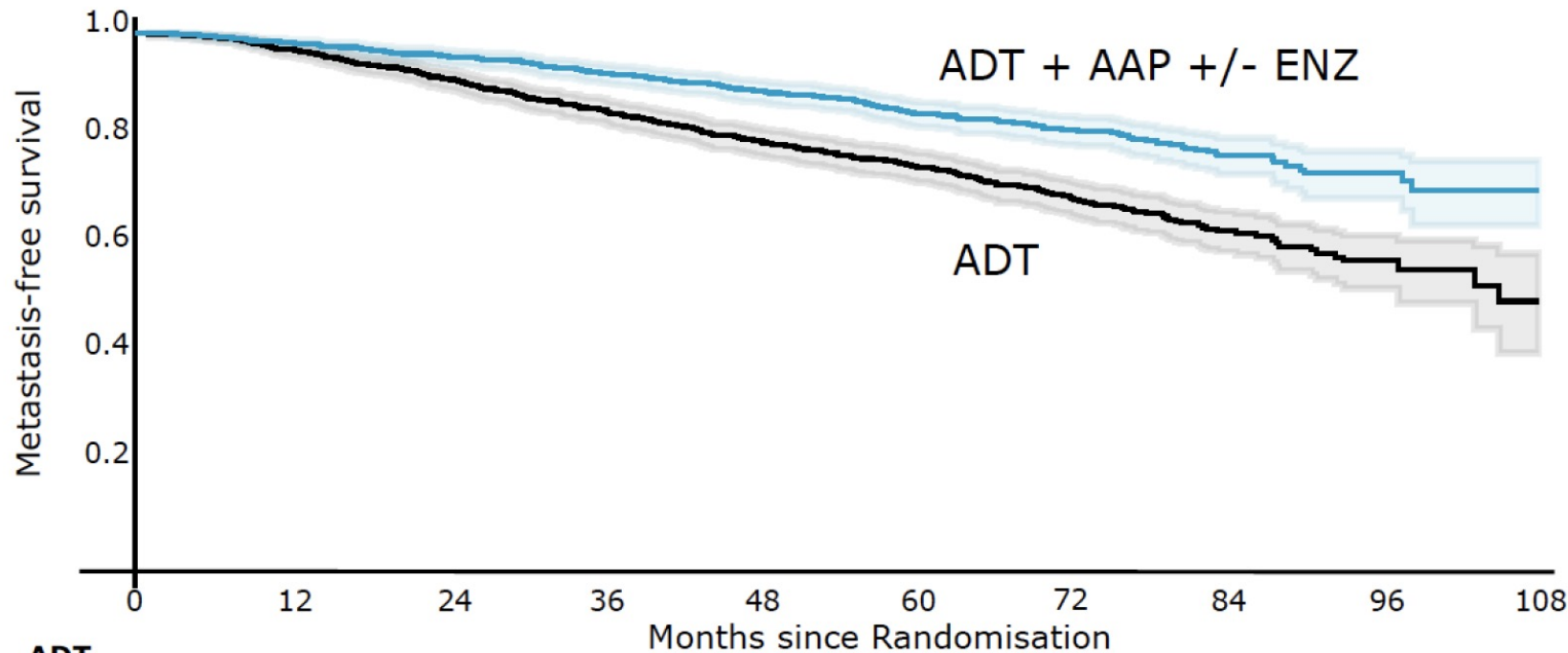
ClinicalTrials.gov number, NCT00268476 & Current Controlled Trials number, ISRCTN78818544

*113 U.K. and Swiss sites: list of investigators and collaborators at www.stampedetrial.org

www.stampedetrial.org



Metastasis-Free Survival with the Addition of Abiraterone Acetate and Prednisolone with or without Enzalutamide to ADT for High-Risk M0 Prostate Cancer



Events
 180 ADT+ AAP +/- ENZ
 306 ADT

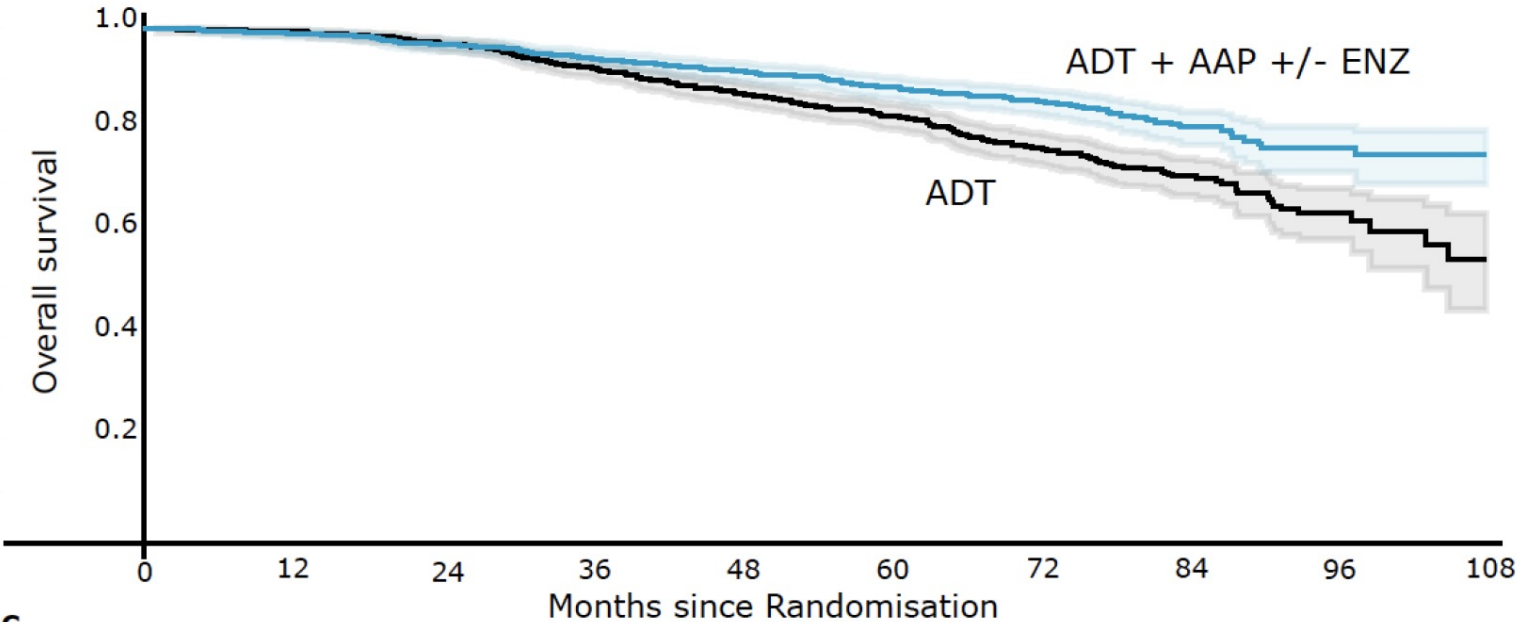
HR: 0.53
 95% CI: 0.44-0.64
 P value 2.9×10^{-11}

6-year MFS improved from 69% to 82%

	0	12	24	36	48	60	72	84	96	108
ADT										
At-risk	988	950	894	836	767	550	329	172	53	9
Censored	0	8	11	14	26	201	387	522	632	673
Event	0	30	83	138	195	237	272	294	303	306
ADT+AAP+/-ENZ										
At-risk	986	948	917	884	839	622	369	198	71	14
Censored	0	21	28	31	45	225	460	615	737	792
Event	0	17	41	71	102	139	157	173	178	180

Overall Survival with the Addition of Abiraterone Acetate and Prednisolone with or without Enzalutamide to ADT for High-Risk M0 Prostate Cancer

Overall survival



Events
 147 ADT+AAP +/- ENZ
 236 ADT

HR: 0.60
 95% CI 0.48 to 0.73
 P value 9.3×10^{-7}

6-year survival improved from 77% to 86%

	0	12	24	36	48	60	72	84	96	108
SOC										
At-risk	988	974	947	901	837	610	368	200	63	10
Censored	0	8	11	14	28	216	421	568	693	742
Event	0	6	30	73	123	162	199	220	232	236
SOC+AAP+/-ENZ										
At-risk	986	956	928	899	861	645	386	205	74	16
Censored	0	21	29	32	46	234	477	641	766	823
Event	0	9	29	55	79	107	123	140	146	147

Meet The Professor

Optimizing the Management of Acute Myeloid Leukemia

Wednesday, December 1, 2021

5:00 PM – 6:00 PM ET

Faculty

Andrew H Wei, MBBS, PhD

Moderator

Neil Love, MD

Thank you for joining us!

***CME and MOC credit information will be emailed
to each participant within 5 business days.***