Meet The Professor Immunotherapy and Novel Agents in Gynecologic Cancers

Joyce F Liu, MD, MPH

Associate Chief and Director of Clinical Research Division of Gynecologic Oncology Dana-Farber Cancer Institute Boston, Massachusetts



Commercial Support

This activity is supported by educational grants from Eisai Inc, Merck, Seagen Inc and Tesaro, A GSK Company.



Dr Love — Disclosures

Dr Love is president and CEO of Research To Practice. Research To Practice receives funds in the form of educational grants to develop CME activities from the following companies: AbbVie Inc, Adaptive Biotechnologies Corporation, ADC Therapeutics, Agios Pharmaceuticals Inc, Alexion Pharmaceuticals, Amgen Inc, Array BioPharma Inc, a subsidiary of Pfizer Inc, Astellas, AstraZeneca Pharmaceuticals LP, Aveo Pharmaceuticals, Bayer HealthCare Pharmaceuticals, BeiGene Ltd, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Coherus BioSciences, Daiichi Sankyo Inc, Eisai Inc, Epizyme Inc, Exact Sciences Inc, Exelixis Inc, Five Prime Therapeutics Inc, Foundation Medicine, Genentech, a member of the Roche Group, Gilead Sciences Inc, GlaxoSmithKline, Grail Inc, Halozyme Inc, Helsinn Healthcare SA, ImmunoGen Inc, Incyte Corporation, Ipsen Biopharmaceuticals Inc, Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC, Jazz Pharmaceuticals Inc, Karyopharm Therapeutics, Kite, A Gilead Company, Lilly, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Merck, Novartis, Novocure Inc, Oncopeptides, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, Sanofi Genzyme, Seagen Inc, Sumitomo Dainippon Pharma Oncology Inc, Taiho Oncology Inc, Takeda Oncology, Tesaro, A GSK Company, TG Therapeutics Inc, Turning Point Therapeutics Inc and Verastem Inc.



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.

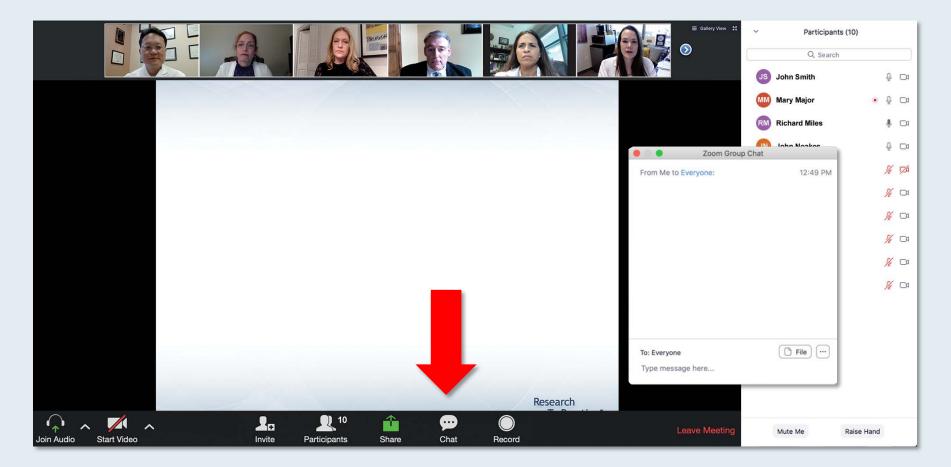


Dr Liu — Disclosures

Advisory Committee	AstraZeneca Pharmaceuticals LP, Eisai Inc, Epsila Bio, Genentech, a member of the Roche Group, GlaxoSmithKline, Regeneron Pharmaceuticals Inc
Consulting Agreement	Genentech, a member of the Roche Group



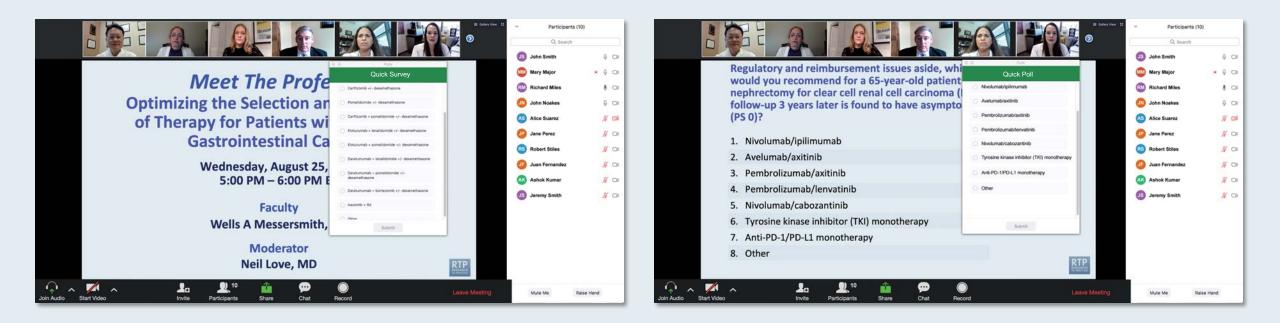
We Encourage Clinicians in Practice to Submit Questions



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



Familiarizing Yourself with the Zoom Interface How to answer survey or poll questions

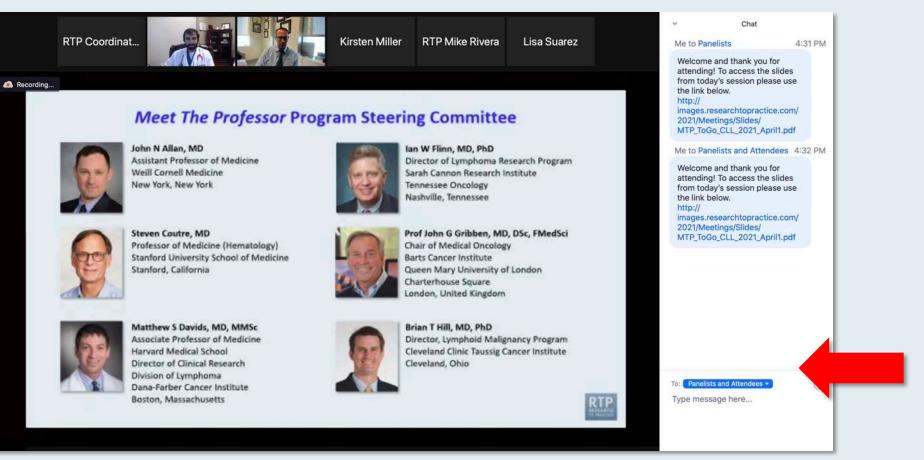


Clinicians in the audience, please click your answer choice for the premeeting survey as well as the live polling questions.



Familiarizing Yourself with the Zoom Interface

Expand chat submission box



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



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

PARP Inhibitors in Ovarian Cancer



DR ANTONIO GONZÁLEZ-MARTÍN Clínica universidad de navarra









Dr Antonio González-Martín PARP Inhi Oncology Today with Dr Neil Love —

(15)

Data + Perspectives: Clinical Investigators Discuss the Current and Future Management of Acute Myeloid Leukemia and Myelodysplastic Syndromes

> A Virtual CME Satellite Symposium During the Society of Hematologic Oncology 2021 Annual Meeting

> > Wednesday, September 8, 2021 7:30 PM – 9:00 PM Central Time

Faculty

Courtney D DiNardo, MD, MSCE Daniel A Pollyea, MD, MS David Sallman, MD Eunice S Wang, MD

Moderator

Neil Love, MD



Exploring Key Issues Affecting the Care of Patients with Metastatic Colorectal Cancer with BRAF Mutations

A CME/MOC-Accredited Virtual Event

Thursday, September 9, 2021 5:00 PM – 6:00 PM ET

Faculty Scott Kopetz, MD, PhD **Consulting Clinical Investigator** Wells A Messersmith, MD

Moderator Neil Love, MD



Expert Second Opinion: Investigators Discuss Available Clinical Research in the Care of Patients with Early-Stage Non-Small Cell Lung Cancer

A Live Webinar Held as a Satellite CME/MOC Symposium During the IASLC 2021 World Conference on Lung Cancer Worldwide Virtual Event

Sunday, September 12, 2021 9:15 PM – 10:15 PM MDT / 11:15 PM – 12:15 AM ET

Faculty

Edward B Garon, MD, MS Harvey I Pass, MD Heather Wakelee, MD

> Moderator Neil Love, MD



What Urologists Want To Know: Addressing Current Questions and Controversies in the Management of Bladder Cancer

A Virtual CME Satellite Symposium During the American Urological Association (AUA) 2021 Annual Meeting

Monday, September 13, 2021 11:00 AM – 12:30 PM ET / 8:00 AM - 9:30 AM PT

Faculty Ashish M Kamat, MD, MBBS Guru Sonpavde, MD Additional faculty to be announced Moderator Neil Love, MD



What Urologists Want To Know: Addressing Current Questions and Controversies in the Management of Prostate Cancer

A Virtual CME Satellite Symposium During the American Urological Association (AUA) 2021 Annual Meeting

Monday, September 13, 2021 5:00 PM - 6:30 PM ET / 2:00 PM - 3:30 PM PT Faculty Maha Hussain, MD, FACP, FASCO **A Oliver Sartor, MD Neal D Shore, MD** Additional faculty to be announced **Moderator** Neil Love, MD



Meet The Professor Optimizing the Clinical Management of Hodgkin and Non-Hodgkin Lymphomas

Thursday, September 16, 2021 5:00 PM – 6:00 PM ET

> Faculty Loretta Nastoupil, 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.



Meet The Professor Immunotherapy and Novel Agents in Gynecologic Cancers

Joyce F Liu, MD, MPH

Associate Chief and Director of Clinical Research Division of Gynecologic Oncology Dana-Farber Cancer Institute Boston, Massachusetts



Meet The Professor Program Participating Faculty



Deborah K Armstrong, MD Professor of Oncology Professor of Gynecology and Obstetrics Skip Viragh Outpatient Cancer Building Johns Hopkins Sidney Kimmel Comprehensive Cancer Center Baltimore, Maryland



Gottfried E Konecny, MD

Professor-in-Residence Division of Hematology-Oncology Department of Medicine, David Geffen School of Medicine UCLA Medical Center Los Angeles, California



Michael J Birrer, MD, PhD

Vice Chancellor, UAMS Director, Winthrop P Rockefeller Cancer Institute Director, Cancer Service Line University of Arkansas for Medical Sciences Little Rock, Arkansas



Joyce F Liu, MD, MPH Associate Chief and Director of Clinical Research Division of Gynecologic Oncology Dana-Farber Cancer Institute Boston, Massachusetts



Robert L Coleman, MD Chief Scientific Officer US Oncology Research Gynecologic Oncology The Woodlands, Texas



Meet The Professor Program Participating Faculty



Bradley J Monk, MD

Professor, Division of Gynecologic Oncology Arizona Oncology (US Oncology Network) University of Arizona College of Medicine Creighton University School of Medicine at St Joseph's Hospital Medical Director, US Oncology Network (McKesson) Gynecologic Program Co-Director, GOG Partners Member, Board of Directors, GOG Foundation Phoenix, Arizona



David M O'Malley, MD Professor Division Director, Gynecologic Oncology Co-Director, Gyn Oncology Phase I Program The Ohio State University and The James Cancer Center Columbus, Ohio



Richard T Penson, MD, MRCP Associate Professor of Medicine Harvard Medical School Clinical Director, Medical Gynecologic Oncology Massachusetts General Hospital Boston, Massachusetts



Ana Oaknin, MD, PhD

Head of Gynaecologic Cancer Programme Vall d'Hebron Institute of Oncology Hospital Universitari Vall d'Hebron Vall d'Hebron Barcelona Hospital Campus Barcelona, Spain



Matthew A Powell, MD Professor and Chief Division of Gynecologic Oncology Washington University School of Medicine St Louis, Missouri



Meet The Professor Program Participating Faculty



Brian M Slomovitz, MD Professor, Department of Obstetrics and Gynecology Florida International University Miami, Florida



Professor Ignace Vergote Chairman, Department of Obstetrics and Gynaecology Gynaecological Oncologist Leuven Cancer Institute University Hospital Leuven Leuven, Belgium



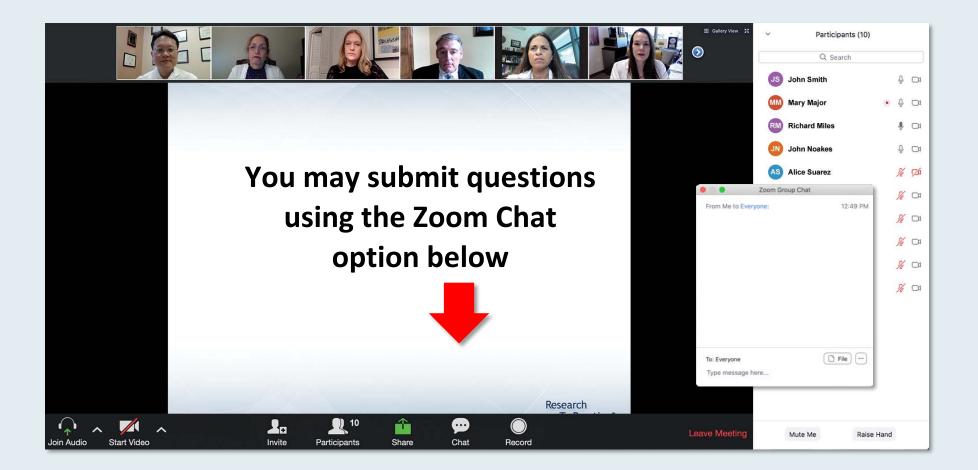
Krishnansu S Tewari, MD Professor and Division Director Division of Gynecologic Oncology University of California, Irvine Irvine, California



Moderator Neil Love, MD Research To Practice Miami, Florida



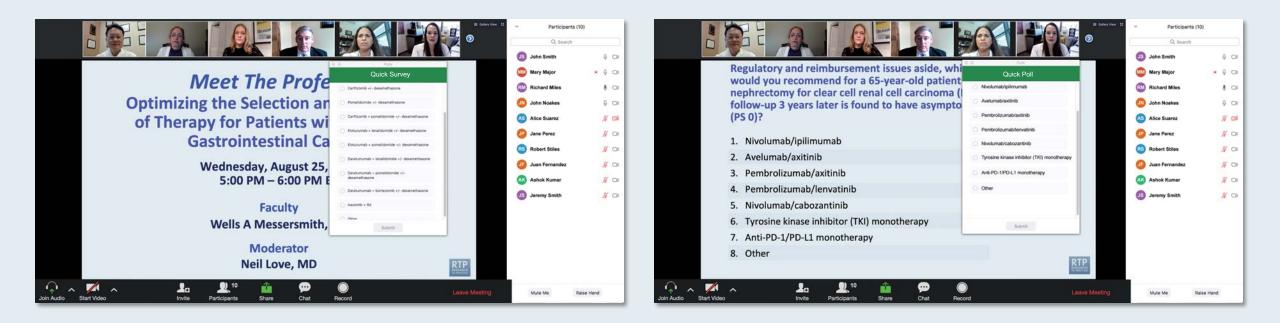
We Encourage Clinicians in Practice to Submit Questions



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



Familiarizing Yourself with the Zoom Interface How to answer survey or poll questions



Clinicians in the audience, please click your answer choice for the premeeting survey as well as the live polling questions.



ONCOLOGY TODAY WITH DR NEIL LOVE

PARP Inhibitors in Ovarian Cancer



DR ANTONIO GONZÁLEZ-MARTÍN Clínica universidad de navarra









Dr Antonio González-Martín PARP Inhi Oncology Today with Dr Neil Love —

(15)

Data + Perspectives: Clinical Investigators Discuss the Current and Future Management of Acute Myeloid Leukemia and Myelodysplastic Syndromes

> A Virtual CME Satellite Symposium During the Society of Hematologic Oncology 2021 Annual Meeting

> > Wednesday, September 8, 2021 7:30 PM – 9:00 PM Central Time

Faculty

Courtney D DiNardo, MD, MSCE Daniel A Pollyea, MD, MS David Sallman, MD Eunice S Wang, MD

Moderator

Neil Love, MD



Exploring Key Issues Affecting the Care of Patients with Metastatic Colorectal Cancer with BRAF Mutations

A CME/MOC-Accredited Virtual Event

Thursday, September 9, 2021 5:00 PM – 6:00 PM ET

Faculty Scott Kopetz, MD, PhD **Consulting Clinical Investigator** Wells A Messersmith, MD

Moderator Neil Love, MD



Expert Second Opinion: Investigators Discuss Available Clinical Research in the Care of Patients with Early-Stage Non-Small Cell Lung Cancer

A Live Webinar Held as a Satellite CME/MOC Symposium During the IASLC 2021 World Conference on Lung Cancer Worldwide Virtual Event

Sunday, September 12, 2021 9:15 PM – 10:15 PM MDT / 11:15 PM – 12:15 AM ET

Faculty

Edward B Garon, MD, MS Harvey I Pass, MD Heather Wakelee, MD

> Moderator Neil Love, MD



What Urologists Want To Know: Addressing Current Questions and Controversies in the Management of Bladder Cancer

A Virtual CME Satellite Symposium During the American Urological Association (AUA) 2021 Annual Meeting

Monday, September 13, 2021 11:00 AM – 12:30 PM ET / 8:00 AM – 9:30 AM PT

Faculty Ashish M Kamat, MD, MBBS Guru Sonpavde, MD Additional faculty to be announced Moderator Neil Love, MD



What Urologists Want To Know: Addressing Current Questions and Controversies in the Management of Prostate Cancer

A Virtual CME Satellite Symposium During the American Urological Association (AUA) 2021 Annual Meeting

Monday, September 13, 2021 5:00 PM - 6:30 PM ET / 2:00 PM - 3:30 PM PT Faculty Maha Hussain, MD, FACP, FASCO **A Oliver Sartor, MD Neal D Shore, MD** Additional faculty to be announced **Moderator** Neil Love, MD



Meet The Professor Optimizing the Clinical Management of Hodgkin and Non-Hodgkin Lymphomas

Thursday, September 16, 2021 5:00 PM – 6:00 PM ET

> Faculty Loretta Nastoupil, MD

> > Moderator Neil Love, MD



Meet The Professor Immunotherapy and Novel Agents in Gynecologic Cancers

Joyce F Liu, MD, MPH

Associate Chief and Director of Clinical Research Division of Gynecologic Oncology Dana-Farber Cancer Institute Boston, Massachusetts





Linda R Duska, MD, MPH

Professor of Obstetrics and Gynecology Division of Gynecologic Oncology University of Virginia School of Medicine Charlottesville, Virginia



Heidi E Godoy, DO

Women's Cancer Care Associates Albany, New York



Richard T Penson, MD, MRCP

Associate Professor of Medicine Harvard Medical School Clinical Director, Medical Gynecologic Oncology Massachusetts General Hospital Boston, Massachusetts





Bhavana Pothuri, MD

Professor, Department of Obstetrics and Gynecology Division of Gynecologic Oncology New York University Grossman School of Medicine New York, New York



Nasfat Shehadeh, MD

Medical Oncologist Oncology Specialists of Charlotte Charlotte, North Carolina



Shannon N Westin, MD, MPH

Associate Professor Director, Early Drug Development Department of Gynecologic Oncology and Reproductive Medicine The University of Texas MD Anderson Cancer Center Houston, Texas



Meet The Professor with Dr Liu

MODULE 1: Cases from the Practices of Gynecologic and Medical Oncologists

Cervical Cancer

- Dr Westin: A 52-year-old woman with metastatic squamous cell carcinoma of the cervix
- Dr Penson: A 39-year-old woman with metastatic squamous cell carcinoma of the cervix PD-L1-negative
- Dr Godoy: A 72-year-old woman with metastatic squamous cell carcinoma of the vulva PD-L1 50%

Endometrial Cancer

- Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus MSI-H, TMB-H, PD-L1-negative
- Dr Pothuri: A 78-year-old woman with HER2-positive metastatic endometrial cancer MSI-H/dMMR, TMB high, BRCA WT
- Dr Penson: A 74-year-old woman with MSS endometrioid adenocarcinoma PD-L1 0%
- Dr Duska: A 60-year-old woman with metastatic, MSS carcinosarcoma
- Dr Duska: A 69-year-old woman with ER/PR-positive metastatic endometrioid adenocarcinoma MMR proficient

MODULE 2: Journal Club with Dr Liu

MODULE 3: Beyond the Guidelines – Clinical Investigator Approaches to Common Clinical Scenarios MODULE 4: Key Recent Data Sets



Meet The Professor with Dr Liu

MODULE 1: Cases from the Practices of Gynecologic and Medical Oncologists

Cervical Cancer

- Dr Westin: A 52-year-old woman with metastatic squamous cell carcinoma of the cervix
- Dr Penson: A 39-year-old woman with metastatic squamous cell carcinoma of the cervix PD-L1-negative
- Dr Godoy: A 72-year-old woman with metastatic squamous cell carcinoma of the vulva PD-L1 50%

Endometrial Cancer

- Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus MSI-H, TMB-H, PD-L1-negative
- Dr Pothuri: A 78-year-old woman with HER2-positive metastatic endometrial cancer MSI-H/dMMR, TMB high, BRCA WT
- Dr Penson: A 74-year-old woman with MSS endometrioid adenocarcinoma PD-L1 0%
- Dr Duska: A 60-year-old woman with metastatic, MSS carcinosarcoma
- Dr Duska: A 69-year-old woman with ER/PR-positive metastatic endometrioid adenocarcinoma MMR proficient

MODULE 2: Journal Club with Dr Liu

MODULE 3: Beyond the Guidelines – Clinical Investigator Approaches to Common Clinical Scenarios MODULE 4: Key Recent Data Sets



Phase III KEYNOTE-826 Trial of First-Line Pembrolizumab with Chemotherapy with and without Bevacizumab Improves Survival in Cervical Cancer

Press Release – June 22, 2021

"The pivotal Phase 3 KEYNOTE-826 trial investigating pembrolizumab, an anti-PD-1 therapy, in combination with platinum-based chemotherapy (paclitaxel plus cisplatin or paclitaxel plus carboplatin) with or without bevacizumab, met its primary endpoints of overall survival (OS) and progression-free survival (PFS) for the first-line treatment of patients with persistent, recurrent or metastatic cervical cancer. Based on an interim analysis conducted by an independent Data Monitoring Committee, pembrolizumab plus platinum-based chemotherapy with or without bevacizumab demonstrated statistically significant and clinically meaningful improvements in OS and PFS compared to the same platinum-based chemotherapy regimens with or without bevacizumab alone, regardless of PD-L1 status... The safety profile of pembrolizumab in this trial was consistent with that observed in previously reported studies. Results will be presented at an upcoming medical meeting and will be submitted to regulatory authorities."

https://www.merck.com/news/merck-announces-phase-3-keynote-826-trial-met-dual-primary-endpoints-of-overall-survival-osand-progression-free-survival-pfs-in-patients-with-persistent-recurrent-or-metastatic-cervical-cancer/



Case Presentation – Dr Westin: A 52-year-old woman with metastatic squamous cell carcinoma of the cervix

- Diagnosed with metastatic Grade 3 squamous cell carcinoma of the cervix
- Cisplatin/paclitaxel/bevacizumab x 6, with near CR → Bevacizumab maintenance x 12 months
 Proteinuria

Questions

 How long would you continue the maintenance bevacizumab – indefinitely or for a certain amount of time?

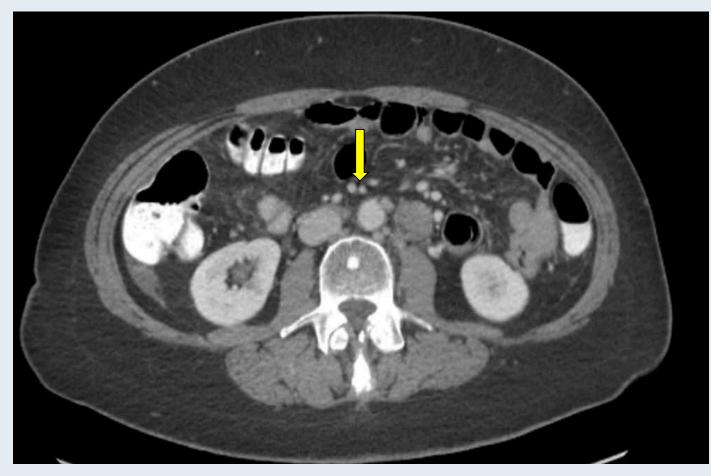




Case Presentation – Dr Westin: A 52-year-old woman with metastatic squamous cell carcinoma of the cervix



Dr Shannon Westin



Omental disease along the colon, peritoneal nodularity



Case Presentation – Dr Penson: A 39-year-old woman with metastatic squamous cell carcinoma of the cervix, PD-L1-negative

- 2016: Diagnosed with Stage IB1, Grade 2-3 squamous cell carcinoma of the cervix
- RT/cisplatin
- 2018: Carboplatin/paclitaxel/bevacizumab
- 2019: Pembrolizumab, with poor response
- 2020: Gemcitabine/cisplatin
- 2020: Clinical trial of HPV vaccine (PDS0101), IL-2 and bifunctional fusion protein targeting PD-L1 and TGFb (M7824)
- 2020: Capecitabine

Questions

- How do you think about pembrolizumab, particularly in a patient without PD-L1 staining for positivity, where the chance of at least tumor shrinkage, if not clinical benefit, is very low?
- In a young, fit person with good organ function, what's your "go-to" choice? Do you use tisotumab or something else?



Dr Richard Penson

Tisotumab Vedotin in Previously Treated Recurrent or Metastatic Cervical Cancer: Results from the Phase II innovaTV 204/GOG-3023/ENGOT-cx6 Study

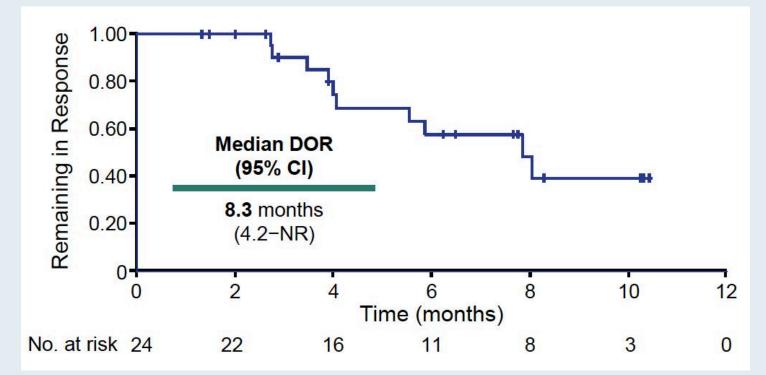
Coleman RL et al. ESMO 2020;Abstract LBA32.



innovaTV 204: Antitumor Activity by IRC Assessment



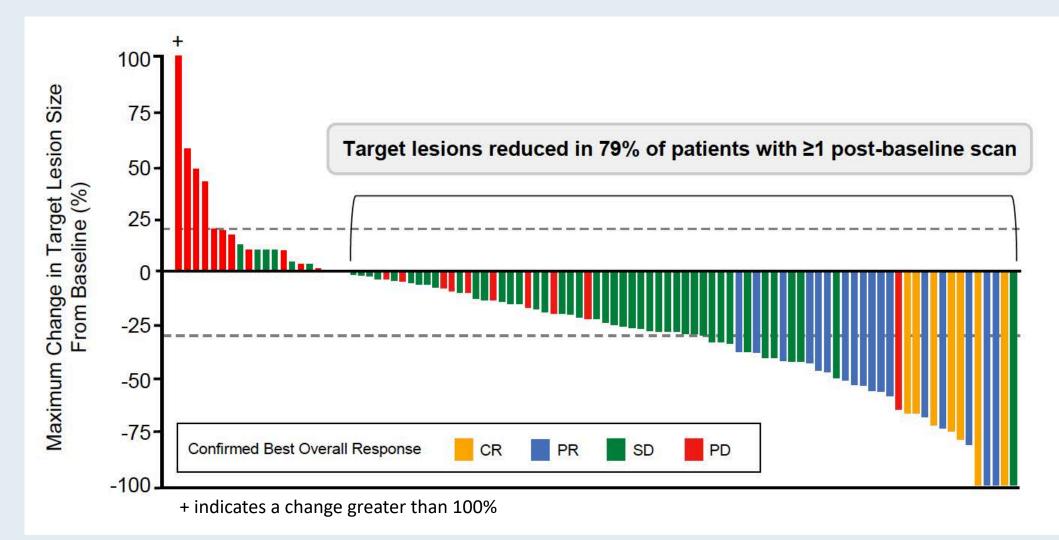
Clinical Variable	N = 101
Confirmed ORR	24%
CR	7%
PR	17%
SD	49%
PD	24%
Not evaluable	4%





Coleman RL et al. ESMO 2020; Abstract LBA32.

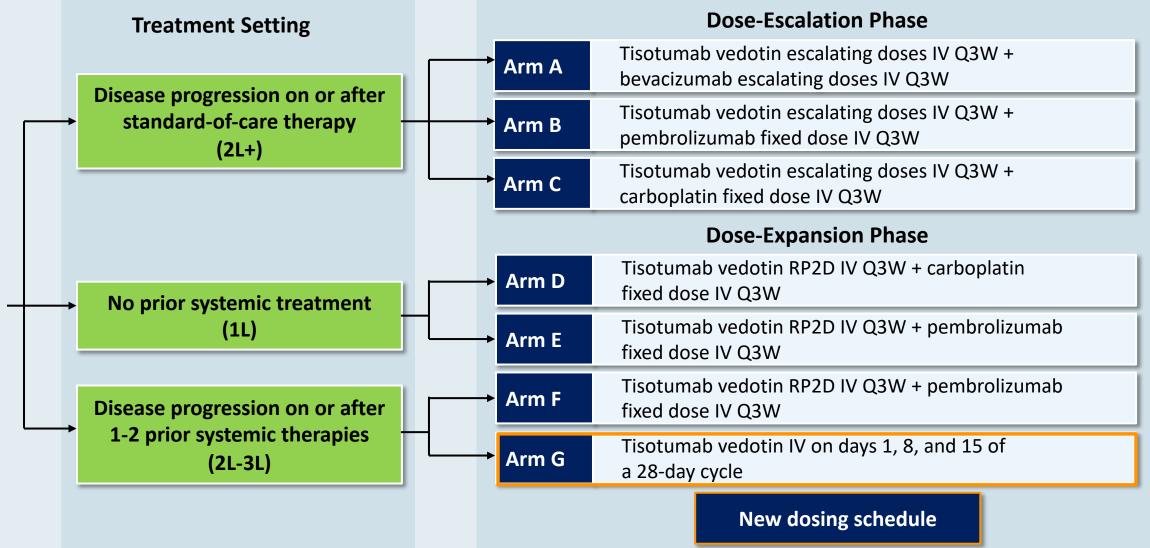
innovaTV 204: Maximum Change in Target Lesion Size by IRC Assessment





Coleman RL et al. ESMO 2020; Abstract LBA32.

innovaTV 205 (GOG 3024): Recurrent or Metastatic Cervical Cancer



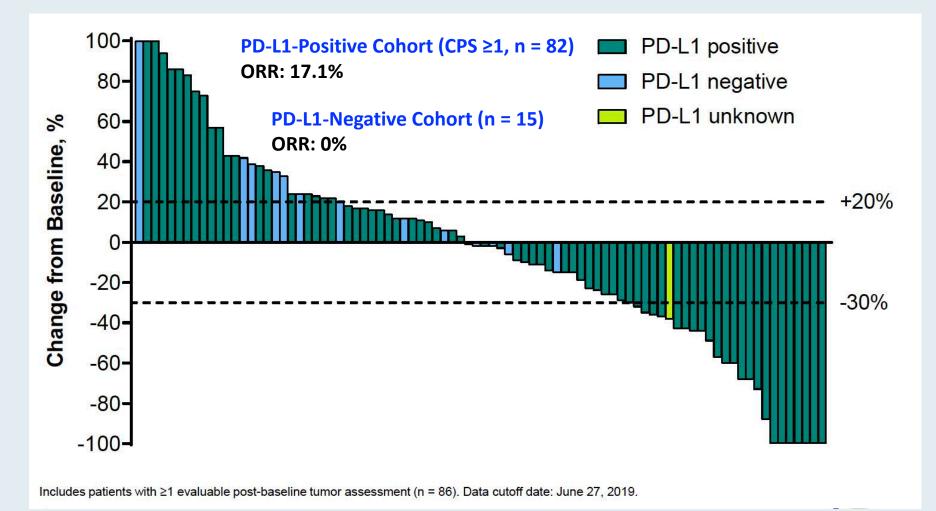


Pembrolizumab Treatment of Advanced Cervical Cancer: Updated Results from the Phase II KEYNOTE-158 Study

Chung HC et al. SGO 2021;Abstract 10440.



Phase II KEYNOTE-158: Updated Results with Pembrolizumab for Previously Treated Advanced Cervical Cancer



Combined Positive Score (CPS) = PD-L1+ cells (tumor cells, lymphocytes, macrophages) / Total number of tumor cells x 100 Chung HC et al. SGO 2021;Abstract 10440.



12 & 13 May 2021



Krishnansu Tewari

ESMO VIRTUAL PLENARY



EMPOWER-CERVICAL 1/GOG-3016/ENGOT-CX9: RESULTS OF PHASE 3 TRIAL OF CEMIPLIMAB VS INVESTIGATOR'S CHOICE (IC) CHEMOTHERAPY (CHEMO) IN RECURRENT/METASTATIC (R/M) CERVICAL CARCINOMA

Krishnansu S Tewari, * Bradley J Monk, * Ignace Vergote, Austin Miller, Andreia Cristina de Melo, Hee Seung Kim, Yong Man Kim, Alla Lisyanskaya, Vanessa Samouëlian, Domenica Lorusso, Fernanda Damian, Chih-Long Chang, Evgeniy A Gotovkin, Shunji Takahashi, Daniella Ramone, Joanna Pikiel, Beata Maćkowiak-Matejczyk, Eva Maria Guerra, Nicoletta Colombo, Yulia Makarova, Jingjin Li, Shaheda Jamil, Vladimir Jankovic, Chieh-I Chen, Frank Seebach, David M Weinreich, George D Yancopoulos, Israel Lowy, Melissa Mathias, Matthew G Fury, and Ana Oaknin

12 May 2021



*Contributed equally to this presentation.

This study (NCT03257267) was sponsored by Regeneron Pharmaceuticals, Inc. and Sanofi.



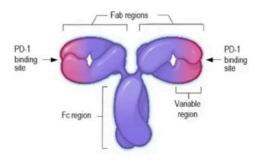
12 & 13 May 2021

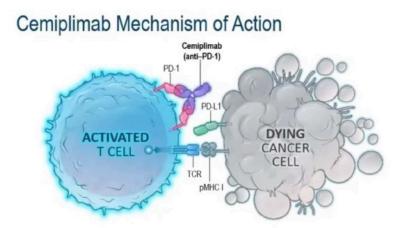


Krishnansu Tewari

CEMIPLIMAB

Cemiplimab Molecular Structure





- High-affinity, human, hinge-stabilised IgG4 monoclonal antibody to the PD-1 receptor¹
- Phase 1 R/M cervical cancer (n=23; includes Dose Escalation + Expansion Cohorts)²
 - Safety profile similar to that of other PD-1 inhibitors²
- 17% ORR²

Ig, immunoglobin; Fc, fragment crystallizable; ORR, objective response rate; PD-1, programmed cell death-1; PD-L1, PD-ligand 1; pMHC I, peptide-bound major histocompatibility complex I; R/M, recurrent or metastatic; TCR, T-cell receptor.

1. Burova E et al. Mol Cancer Ther. 2017;16:861-870. 2. Rischin D et al. Gynecol Oncol. 2020;159:322-328.

ESMO VIRTUAL PLENARY



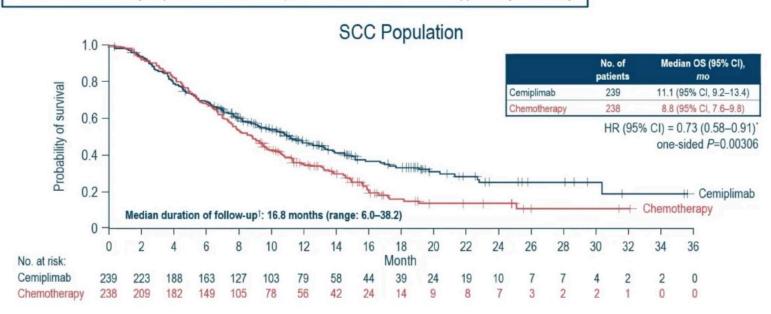
12 & 13 May 2021



Krishnansu Tewari

OVERALL SURVIVAL

• At second interim analysis (85% of total OS events), IDMC recommended trial be stopped early for efficacy



*Stratified by geographic region (North America vs Asia vs ROW) according to interactive web response system. †From randomisation to data cutoff date. CI, confidence interval; HR, hazard ratio; IDMC, Independent Data Monitoring Committee; mo, month; OS, overall survival; ROW, rest of world; SCC, squamous cell carcinoma.

ESMO VIRTUAL PLENARY

Data cutoff date: 4 Jan 2021

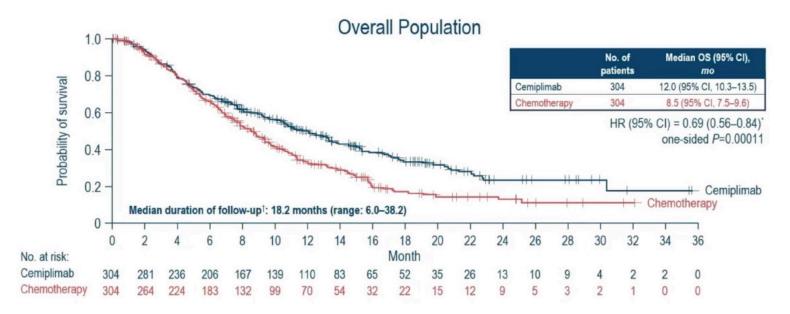


12 & 13 May 2021



Krishnansu Tewari

OVERALL SURVIVAL



*Stratified by geographic region (North America vs Asia vs ROW) and Histology (SCC vs AC) according to interactive web response system. †From randomisation to data cutoff date. AC, adenocarcinoma or adenosquamous carcinoma; CI, confidence interval; HR, hazard ratio; mo, month; OS, overall survival; ROW, rest of world; SCC, squamous cell carcinoma.

ESMO VIRTUAL PLENARY

Data cutoff date: 4 Jan 2021



Case Presentation – Dr Godoy: A 72-year-old woman with metastatic squamous cell carcinoma of the vulva – PD-L1 50%



Dr Heidi Godoy

- PMH: Lichen sclerosis, s/p clobetasol and estradiol cream with no improvement after 4 months, lesion on the right side of the vulva
- 5/2014 Biopsy: Stage IB squamous cell carcinoma of the vulva, with no residual disease s/p vulvectomy
- 9/2017 Vulvar biopsy: Squamous cell carcinoma
- 10/2017: Radical vulvectomy/distal urethrectomy, with positive margins
- 1/2018: Cisplatin/RT
- 10/2018: Hyperbaric O2 planned x 30
- 1/2019: Recurrence, with extensive disease spread to vagina and perineum
- 4/2019: Carboplatin/paclitaxel/bevacizumab
- NGS: PD-L1 TPS 50%
- 7/2019: Pembrolizumab, with response x 6 months followed by disease progression and referral to hospice



Endometrial Cancer



Case Presentation – Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus – MSI-H, TMB high, PD-L1-negative

- 2/2018: Presents with large pelvic mass, fistula between mass and colon, abscess requiring diverting colostomy
 - Biopsy: Poorly differentiated adenocarcinoma of the uterus, MMR-proficient
- Carboplatin/paclitaxel x 4, with minor response, continued to be symptomatic
- 4/2018 NGS: MSI-high, TMB 18 mut/Mb, PD-L1-negative, non-germline BRCA2-positive (sporadic?), PI3K and PTEN mutations
- 6/2018: Pembrolizumab, with great response, no pain, improved QoL
- 9/2019: Colostomy reversed
- 3/2020: Pembrolizumab discontinued, in CR, due to COVID-19 pandemic

Questions

- Would you discontinue the immunotherapy in a patient who achieved a CR and is doing well?
- If she progresses down the road, could I use a PARP inhibitor in this patient? Are the PI3 kinase and PTEN mutations actionable?



Dr Nasfat Shehadeh



Case Presentation – Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus – MSI-H, TMB high, PD-L1-negative



Dr Nasfat Shehadeh

	a carden and the second	elevant Blomarkers
MSI	NGS	High
Total Mutational Load		High 18 Mutations/Mb
	Other Notah	ale Diomorker Results
PD-L1	IHC	Negative 0, 100%
ARID1A		Mutated, Pathogenic
		Exon 16 p.R1335X
BDCA3	RCA2 NGS	Mutated, Pathogenic
		Exon 10 p.V323fs
		Mutated, Pathogenic
	INGS	Exon 4 [p.N193fs
من من المراجع ا المراجع المراجع		Mutated, Pathogenic
······	NGS	Exon 5 p.R215W
CTNNB1	NICE	Mutated, Pathogenic
	NGS	Exon 3 p.G34E
21.477.252	NIC C	Mutated, Pathogenic
KMT2D	NGS	Exon 31 [p.A2119fs

BIOMARKER HIGHLIGHTS

A Superior State Strate Store	- Method Notoble Bi	Repuit Iomarker Brouits (cont)
PIK3CA	NGS	Mutated, Pathogenic
		Exon 2 p.R108H
DTEN.	N/CC	Mutated, Pathogenic
FIEN	INGS	Exon 5 p.R130G
RNF43	NGS	Mutated, Pathogenic
		Exon 9 p.G659fs
ATM	NGS	Mutation Not Detected
BRA⊦	NGS	Mutation Not Detected
BRCAT	NGS	Mutation Not Detected
EGFR	NGS	Mutation Not Detected
KRAS	NGS	Mutation Not Detected
NRAS	NGS	Mutation Not Detected
ERBB2 (Her2/Neu)	NGS	Amplification Not Detected
ERCC1	IHC	Negative 0, 100%
RRM1	IHC	Positive 2+, 75%
TOPO1	IIIC	Positive 2+, 75%
T5	IHC	Positive 24,25%



Case Presentation – Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus – MSI-H, TMB high, PD-L1-negative

PET scan before surgery:



Dr Nasfat Shehadeh





Case Presentation – Dr Pothuri: A 78-year-old woman with HER2-positive metastatic endometrial cancer – MSI-H/dMMR, TMB high, BRCA wild type

- 9/2016: Diagnosed with Stage IIA, grade 2 endometrial cancer, s/p hysterectomy BSO, LND
- 2/2017: Sandwich RT
- 5/2017: Carboplatin/paclitaxel x 6
- Germline genetic testing: Negative
- NGS: HER2-positive, MSI-High, TMB-High,
- 6/2018: Recurrence
- 9/2018: Pembrolizumab x 6, with CR on 1/2019
- 2/2109: Hospitalized with influenza A encephalitis, with significant neurologic deficit
 - Pembrolizumab discontinued and still NED 2 years after her last treatment



Dr Bhavana Pothuri



ASCO 2021; Abstract 2565

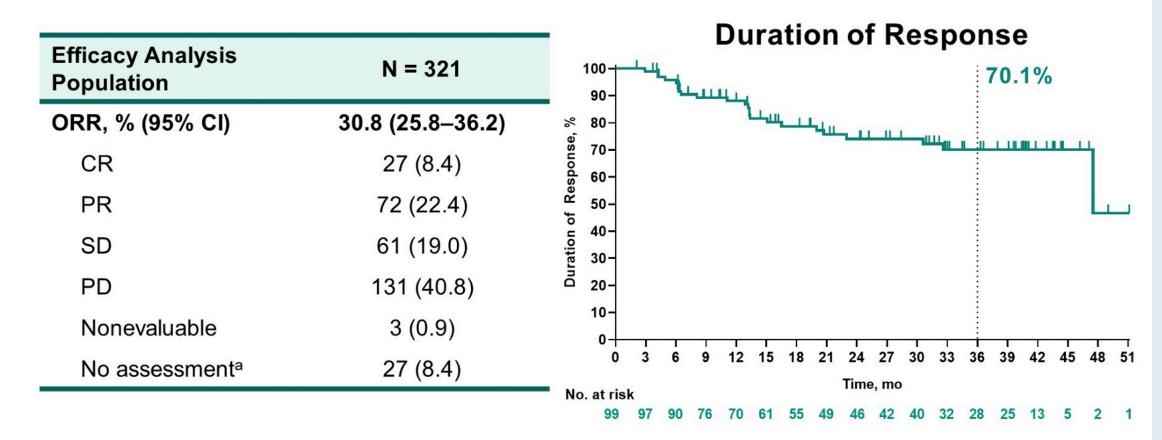
Pembrolizumab in Microsatellite Instability High/Mismatch Repair–Deficient Cancers: Updated Analysis From Phase 2 KEYNOTE-158 Study

<u>M. Maio¹</u>; P.A. Ascierto²; L. Manzyuk³; D. Motola-Kuba⁴; N. Penel⁵; P.A. Cassier⁶; G. Mendonca Bariani⁷; A. De Jesus Acosta⁸; T. Doi⁹; F. Longo Muñoz¹⁰; W.H. Miller, Jr¹¹; D.-Y. Oh¹²; M. Gottfried¹³; R. Wang¹⁴; F. Jin¹⁴; K. Norwood¹⁴; A. Marabelle¹⁵

¹Center for Immuno-Oncology, University Hospital of Siena, Siena, Italy; ²Istituto Nazionale Tumori Istituto di Ricovero e Cura a Carattere Scientifico Fondazione Pascale, Naples, Italy; ³NN Blokhin National Medical Research Center of Oncology, Moscow, Russia; ⁴COMOP A.C., Clinical Investigation, Mexico City, Mexico; ⁵Centre Oscar Lambret and Lille University, Lille, France; ⁶Department of Medical Oncology, Centre Léon Bérard, Lyon, France; ⁷Instituto do Câncer do Estado de São Paulo, Universidade de São Paulo, São Paulo, Brazil; ⁸Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD; ⁹National Cancer Center Hospital East, Kashiwa, Japan; ¹⁰Hospital Universitario Ramón y Cajal, IRYCIS, CIBERONC, Madrid, Spain; ¹¹Jewish General Hospital and McGill University, Montréal, QC, Canada; ¹²Department of Internal Medicine, Seoul National University Hospital, and Cancer Research Institute, Seoul National University College of Medicine, Seoul, Republic of Korea; ¹³Meir Medical Center, Tel Aviv, Israel; ¹⁴Merck & Co., Inc., Kenilworth, NJ, USA; ¹⁵Gustave Roussy, Institut National de la Santé et de la Recherche Médicale U1015, Villejuif, France.



KEYNOTE-158: Updated Response Analyses

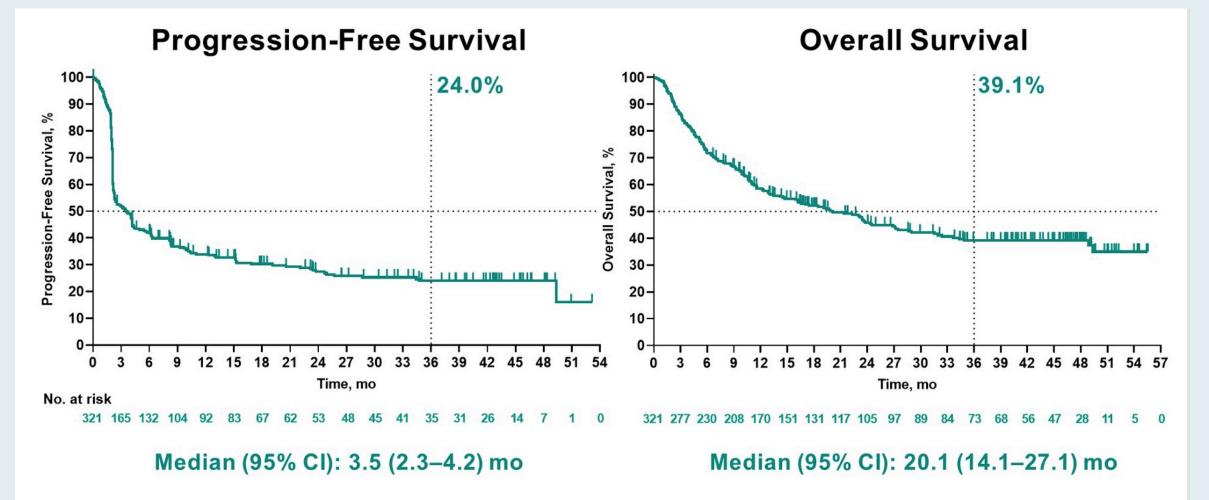


CI, confidence interval. "+" indicates no PD by the time of last disease assessment. ^aPatients who had no postbaseline imaging assessment. Data cutoff: October 5, 2020



Maio M et al. ASCO 2021; Abstract 2565.

KEYNOTE-158: Updated Survival Analyses



Data cutoff: October 5, 2020



Maio M et al. ASCO 2021; Abstract 2565.

Case Presentation – Dr Penson: A 74-year-old woman with MSS endometrioid endometrial adenocarcinoma – PD-L1 0%



Dr Richard Penson

- 2013: Diagnosed with Stage IA, grade 2 MSS endometrioid adenocarcinoma
- Robotic-assisted laparoscopic hysterectomy, BSO, brachytherapy
- 2017: Carboplatin/paclitaxel
- 2017: Phase I study of lenvatinib/pembrolizumab x 12, with "spectacular" response
 - Hypothyroidism, hypertension, Grade 3 myalgias, gastric perforation
- 2017-Present: Continues pembrolizumab q6wks
- NGS assay: PIK3CA, PTEN, BRCA2, ARID1A, APC mutations

Questions

• As you approach the 2-year milestone with immunotherapy, do you stop treatment?



A Multicenter, Open-Label, Randomized, Phase III Study to Compare the Efficacy and Safety of Lenvatinib in Combination with Pembrolizumab versus Treatment of Physician's Choice in Patients with Advanced Endometrial Cancer: Study 309/KEYNOTE-775

Makker V et al. SGO 2021;Abstract 11512.



Study 309/KEYNOTE-775: Phase III Trial Schema

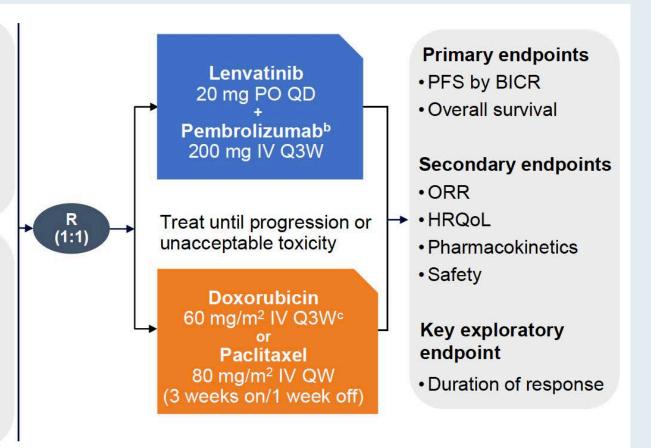
Key eligibility criteria

- Advanced, metastatic, or recurrent endometrial cancer
- Measurable disease by BICR
- 1 Prior platinum-based CT^a
- ECOG PS 0-1
- Tissue available for MMR testing

Stratification factors

MMR status (pMMR vs dMMR) and further stratification within pMMR by:

- Region (R1: Europe, USA, Canada, Australia, New Zealand, and Israel, vs R2: rest of the world)
- ECOG PS (0 vs 1)
- Prior history of pelvic radiation (Y vs N)



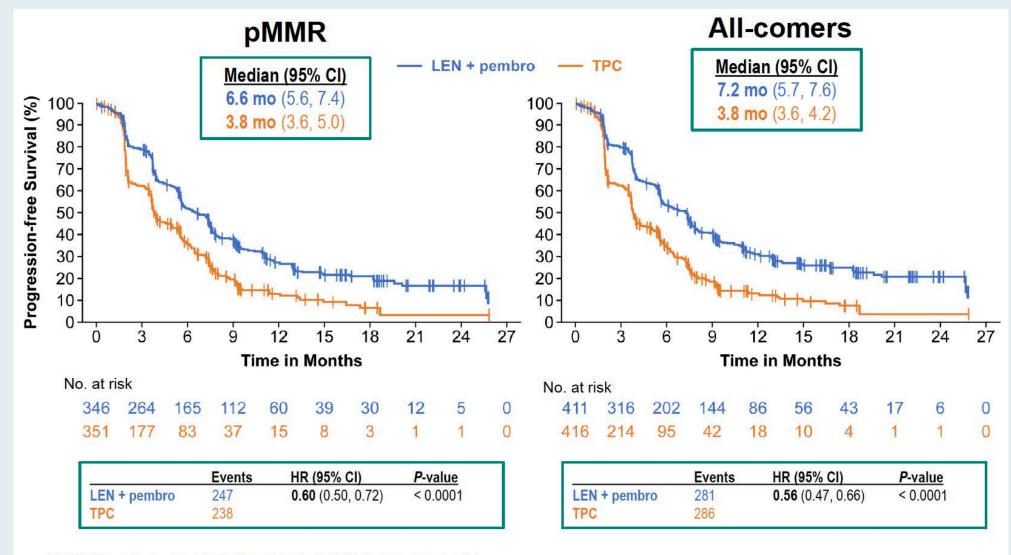
^aPatients may have received up to 2 prior platinum-based CT regimens if 1 is given in the neoadjuvant or adjuvant treatment setting. ^bMaximum of 35 doses. ^cMaximum cumulative dose of 500 mg/m².

BICR, blinded independent central review; ECOG PS, Eastern Cooperative Oncology Group performance status; HRQoL, health-related quality of life; IV, intravenous; PFS, progression-free survival; pMMR, mismatch repair-proficient; ORR, objective response rate; PO, per os (by mouth); QD, once daily; Q3W, every 3 weeks; QW, once weekly.



Makker V et al. SGO 2021; Abstract 11512.

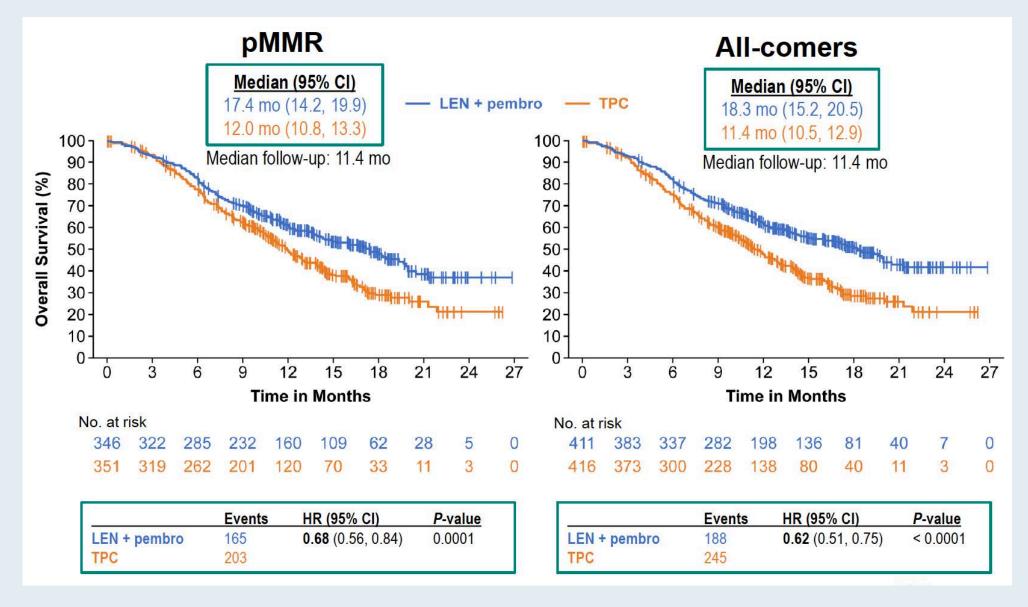
Study 309/KEYNOTE-775: Progression-Free Survival



^aBy BICR per Response Evaluation Criteria in Solid Tumors version 1.1.

Makker V et al. SGO 2021; Abstract 11512.

Study 309/KEYNOTE-775: Overall Survival





Makker V et al. SGO 2021; Abstract 11512.

Case Presentation – Dr Duska: A 60-year-old woman with metastatic, MSS carcinosarcoma

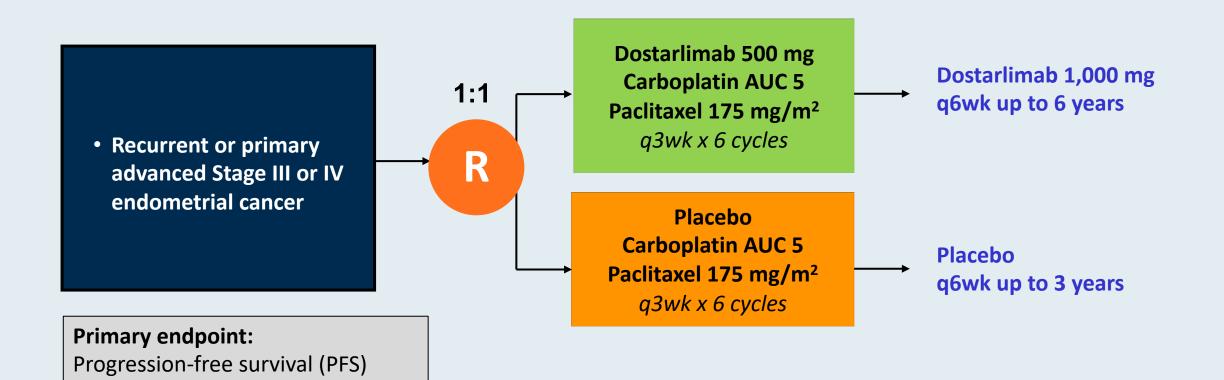


- PMH: Dyslipidemia, hypertension, seizure disorder, stroke, smoker
- Presents with progressive fatigue, nausea, abdominal pain
- Endometrial biopsy: Carcinosarcoma (malignant mixed Mullerian tumor), microsatellite stable
- CT: Bulky mass in the uterus extending to pelvis and lower abdomen c/w metastatic disease
- Enrolled on RUBY trial: carboplatin/paclitaxel +/- dostarlimab





ENGOT-EN6/NSGO-RUBY Phase III Schema





Mirza MR et al. ASCO 2020; Abstract TPS6107.

FDA Grants Accelerated Approval to Dostarlimab-gxly for dMMR Endometrial Cancer Press Release – April 22, 2021

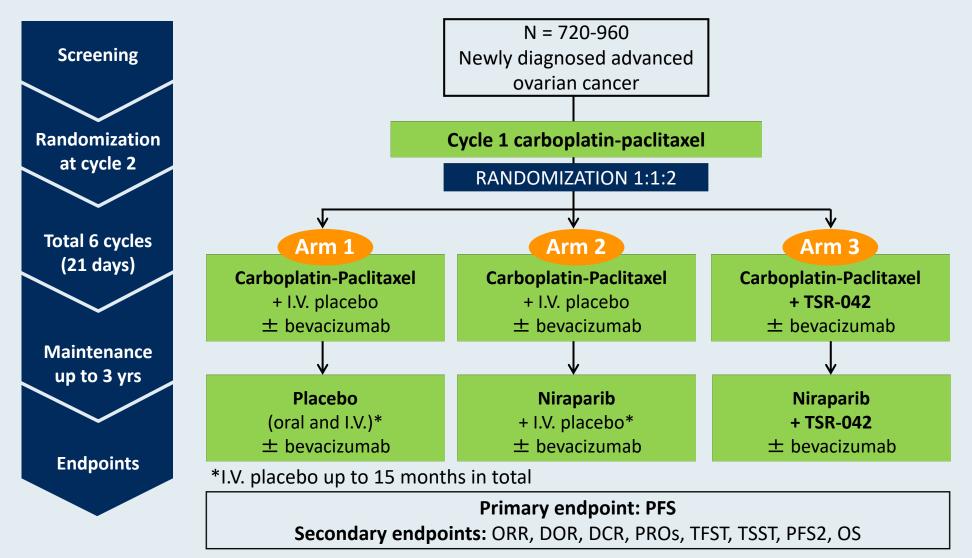
"The Food and Drug Administration granted accelerated approval to dostarlimab-gxly for adult patients with mismatch repair deficient (dMMR) recurrent or advanced endometrial cancer, as determined by an FDA-approved test, that has progressed on or following a prior platinum-containing regimen.

Efficacy was evaluated based on cohort (A1) in GARNET Trial (NCT02715284), a multicenter, multicohort, open-label trial in patients with advanced solid tumors. The efficacy population consisted of 71 patients with dMMR recurrent or advanced endometrial cancer who progressed on or after a platinum-containing regimen. Patients received dostarlimab-gxly, 500 mg intravenously, every 3 weeks for 4 doses followed by 1,000 mg intravenously every 6 weeks.

The main efficacy endpoints were overall response rate (ORR) and duration of response (DOR), as assessed by blinded independent central review (BICR) according to RECIST 1.1. Confirmed ORR was 42.3%. The complete response rate was 12.7% and partial response rate was 29.6%. Median DOR was not reached, with 93.3% of patients having durations ≥6 months (range: 2.6 to 22.4 months, ongoing at last assessment)."



FIRST Phase III Trial of Dostarlimab (TSR-042) in Newly Diagnosed Ovarian Cancer





Case Presentation – Dr Duska: A 69-year-old woman with ER/PR-positive metastatic endometrioid adenocarcinoma – MMR proficient



Dr Linda Duska

- PMH: Hyperlipidemia, nephrolithiasis, recurrent UTI, prior lumpectomy
- Postmenopausal bleeding → Endometrial biopsy: Grade 1 endometrioid adenocarcinoma
- Laparoscopic TLH/BSO BPLND: Grade 1, Stage IB, ER/PR-positive, MMR-proficient
- Nine years later: Presents with cough
- Chest x-ray: Multiple lung nodules, biopsy-confirmed metastatic adenocarcinoma c/w endometrial primary
- Tamoxifen/megesterol acetate, with decreasing disease one year later



Meet The Professor with Dr Liu

MODULE 1: Cases from the Practices of Gynecologic and Medical Oncologists

Cervical Cancer

- Dr Westin: A 52-year-old woman with metastatic squamous cell carcinoma of the cervix
- Dr Penson: A 39-year-old woman with metastatic squamous cell carcinoma of the cervix PD-L1-negative
- Dr Godoy: A 72-year-old woman with metastatic squamous cell carcinoma of the vulva PD-L1 50%

Endometrial Cancer

- Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus MSI-H, TMB-H, PD-L1-negative
- Dr Pothuri: A 78-year-old woman with HER2-positive metastatic endometrial cancer MSI-H/dMMR, TMB high, BRCA WT
- Dr Penson: A 74-year-old woman with MSS endometrioid adenocarcinoma PD-L1 0%
- Dr Duska: A 60-year-old woman with metastatic, MSS carcinosarcoma
- Dr Duska: A 69-year-old woman with ER/PR-positive metastatic endometrioid adenocarcinoma MMR proficient

MODULE 2: Journal Club with Dr Liu

MODULE 3: Beyond the Guidelines – Clinical Investigator Approaches to Common Clinical Scenarios MODULE 4: Key Recent Data Sets



Journal Club with Dr Liu – Part 1

ASCO 2021 Annual Meeting: A review and summary of selected abstracts

Trials in Progress

- innovaTV 301: Ongoing trial of tisotumab vedotin vs investigator's choice of chemotherapy for second- or third-line recurrent or metastatic cervical cancer (CC). Abstract TPS5596.
- ROCSAN: Dostarlimab/niraparib vs niraparib vs chemotherapy for endometrial/ovarian carcinosarcoma after ≥1 line of platinum-based chemotherapy. Abstract TPS5604.
- KEYNOTE-B21: Pembrolizumab with adjuvant chemotherapy ± RT for newly diagnosed high-risk endometrial cancer (EC). Abstract TPS5608.
- ENGOT-OV54/Swiss-GO-2/MATAO Including LOGOS (Low-Grade Ovarian Cancer Substudy): Maintenance therapy with aromatase inhibitor for epithelial ovarian cancer (OC). Abstract TPS5598.
- Paclitaxel/carboplatin and maintenance letrozole vs letrozole monotherapy for Stage II-IV primary low-grade serous carcinoma of the ovary or peritoneum. Abstract TPS5601.
- AdvanTIG-202: Anti-TIGIT monoclonal antibody ociperlimab with anti-PD-1 monoclonal antibody tislelizumab for previously treated recurrent or metastatic CC. Abstract TPS5595.



Journal Club with Dr Liu – Part 1

ASCO 2021 Annual Meeting: A review and summary of selected abstracts

Other Abstracts

- NEOPEMBROV: Neoadjuvant chemotherapy ± pembrolizumab (P) → Interval debulking surgery and standard systemic therapy ± P for advanced high-grade serous carcinoma. Abstract 5500.
- AnIotinib with sintilimab for recurrent advanced CC. Abstract 5524.
- OUTBACK: Adjuvant chemotherapy after chemoradiation as primary treatment for locally advanced CC. Abstract LBA3.
- TAPUR: Pertuzumab with trastuzumab for uterine cancer with ERBB2 or ERBB3 amplification, overexpression or mutation. Abstract 5508.
- Mirvetuximab soravtansine/bevacizumab for platinum-agnostic OC: Final analysis. Abstract 5504.
- Optimal treatment duration of bevacizumab combined with carboplatin/paclitaxel for epithelial OC. Abstract 5501.
- TOTEM: Intensive vs minimalist follow-up for patients who receive treatment for EC. Abstract 5506.



Gynecologic Oncology 162 (2021) 245–248



Meeting Report

The American Society of Clinical Oncology 2021 annual (virtual) meeting: A review and summary of selected abstracts

Ritu Salani ^{a,*}, Joyce F. Liu ^b



Tisotumab Vedotin versus Investigator's Choice Chemotherapy in Second- or Third-Line Recurrent or Metastatic Cervical Cancer (innovaTV 301/ENGOT-cx12/GOG 3057, Trial in Progress)

Vergote I et al. ASCO 2021;Abstract TPS5596.



ROCSAN Trial (GINECO-EN203b/ENGOT-EN8): A Multicentric Randomized Phase II/III Evaluating Dostarlimab in Combination with Niraparib versus Niraparib Alone Compared to Chemotherapy in the Treatment of Endometrial/Ovarian Carcinosarcoma After at Least One Line of Platinum Based Chemotherapy

Ray-Coquard IL et al. ASCO 2021;Abstract TPS5604.



ENGOT-en11/GOG-3053/KEYNOTE-B21: Phase 3 Study of Pembrolizumab or Placebo in Combination with Adjuvant Chemotherapy with/without Radiotherapy in Patients with Newly Diagnosed High-Risk Endometrial Cancer

Gorp TV et al. ASCO 2021;Abstract TPS5608.



ENGOT-ov54/Swiss-GO-2/MATAO Including LOGOS (Low-Grade Ovarian Cancer Sub-study): Maintenance Therapy with Aromatase Inhibitor in Epithelial Ovarian Cancer — A Randomized, Double-Blinded, Placebo-Controlled, Multicenter Phase III Trial

Heinzelmann-Schwarz VA et al. ASCO 2021;Abstract TPS5598.



A Randomized Phase III, Two-Arm Trial of Paclitaxel, Carboplatin, and Maintenance Letrozole versus Letrozole Monotherapy in Patients with Stage II-IV, Primary Low-Grade Serous Carcinoma of the Ovary or Peritoneum

Fader AM et al. ASCO 2021;Abstract TPS5601.



AdvanTIG-202: A Phase 2 Study Investigating Anti-TIGIT Monoclonal Antibody Ociperlimab plus Anti-PD-1 Monoclonal Antibody Tislelizumab in Patients with Previously Treated Recurrent or Metastatic Cervical Cancer

Wu L et al. ASCO 2021;Abstract TPS5595.



Efficacy and Safety Results from Neopembrov Study, a Randomized Phase II Trial of Neoadjuvant Chemotherapy (CT) with or without Pembrolizumab (P) Followed by Interval Debulking Surgery and Standard Systemic Therapy \pm P for Advanced High-Grade Serous Carcinoma (HGSC): A GINECO Study

Ray-Coquard IL et al. ASCO 2021;Abstract 5500.



Anlotinib plus Sintilimab in Patients with Recurrent Advanced Cervical Cancer: A Prospective, Multicenter, Single-Arm, Phase II Clinical Trial

Xu Q et al. ASCO 2021;Abstract 5524.



Adjuvant Chemotherapy Following Chemoradiation as Primary Treatment for Locally Advanced Cervical Cancer Compared to Chemoradiation Alone: The Randomized Phase III OUTBACK Trial (ANZGOG 0902, RTOG 1174, NRG 0274)

Mileshkin LR et al. ASCO 2021;Abstract LBA3.



Pertuzumab plus Trastuzumab (P + T) in Patients (Pts) with Uterine Cancer (UC) with *ERBB2* or *ERBB3* Amplification, Overexpression or Mutation: Results from the Targeted Agent and Profiling Utilization Registry (TAPUR) Study

Ali-Ahmad HM et al. ASCO 2021;Abstract 5508.



Mirvetuximab Soravtansine, a Folate Receptor Alpha (FRα)-Targeting Antibody-Drug Conjugate (ADC), in Combination with Bevacizumab in Patients (pts) with Platinum-Agnostic Ovarian Cancer: Final Analysis

O'Malley DM et al. ASCO 2021;Abstract 5504.



Optimal Treatment Duration of Bevacizumab (BEV) Combined with Carboplatin and Paclitaxel in Patients (pts) with Primary Epithelial Ovarian (EOC), Fallopian **Tube (FTC) or Peritoneal Cancer (PPC): A Multicenter Open-Label Randomized 2-Arm Phase 3 ENGOT/GCIG Trial of the AGO Study Group, GINECO, and NSGO** (AGO-OVAR 17/BOOST, GINECO OV118, ENGOT Ov-15, **NCT01462890)**

Pfisterer J et al. ASCO 2021;Abstract 5501.



Intensive versus Minimalist Follow-Up in Patients Treated for Endometrial Cancer: A Multicentric Randomized Controlled Trial (The TOTEM Study— NCT00916708)

Zola P et al. ASCO 2021;Abstract 5506.



Journal Club with Dr Liu – Part 2

- OPAL Cohort A: Dostarlimab, bevacizumab and niraparib for platinum-resistant OC
- Mirvetuximab soravtansine/pembrolizumab for MSS EC
- Phase II study of talazoparib and avelumab for MSS recurrent/persistent EC
- Avelumab/axitinib in mismatch repair-proficient recurrent or persistent EC
- Adapting protein sequences for optimized therapeutic efficacy



An Open-Label Phase 2 Study of Dostarlimab, Bevacizumab, and Niraparib Combination in Patients with Platinum-Resistant Ovarian Cancer: Cohort A of the OPAL Trial

Joyce F. Liu,¹ Stéphanie Gaillard,² Andrea E. Wahner Hendrickson,³ John W. Moroney,⁴ Oladapo Yeku,⁵ Elisabeth Diver,⁶ Camille Gunderson,⁷ Rebecca Arend,⁸ Elena Ratner,⁹ Vivek Samnotra,¹⁰ Divya Gupta,¹⁰ Lena Evilevitch,¹⁰ Zebin Wang,¹⁰ Ping Wang,¹⁰ Joseph Tang,¹⁰ Emeline Bacqué,¹⁰ Xiaohong Liu,¹⁰ Gottfried E. Konecny¹¹

Poster #23

¹Dana-Farber Cancer Institute, Boston, MA, USA; ²Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD, USA; ³Mayo Clinic Rochester, Rochester, NY, USA; ⁴University of Chicago Medicine Comprehensive Cancer Center, Chicago, IL, USA; ⁵Massachusetts General Cancer Center, Boston, MA, USA; ⁶Stanford Women's Cancer Center, Palo Alto, CA, USA; ⁷University of Oklahoma Stephenson Cancer Center, Oklahoma City, OK, USA; ⁸The University of Alabama at Birmingham, UAB Comprehensive Cancer Center, Birmingham, AL, USA; ⁹Yale University, New Haven, CT, USA; ¹⁰GlaxoSmithKline, Waltham, MA, USA; ¹¹Ronald Reagan UCLA Medical Center, Los Angeles, CA, USA.

SGO VIRTUAL ANNUAL MEETING 2021 ON WOMEN'S CANCER®

Abstract 10415





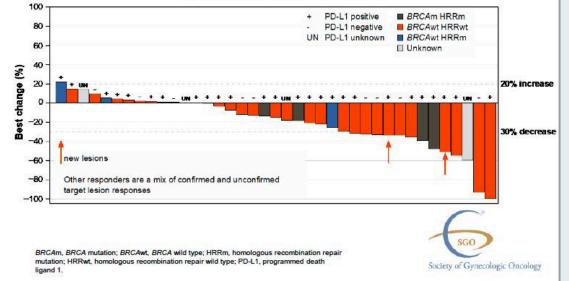
Antitumor Activity

- Antitumor activity was assessed in the response-evaluable population (n=39)
 - 2 patients in the safety population did not have a postbaseline scan and were excluded from the responseevaluable population
- Response data required that patients with a best response of complete response or partial response had a confirmation scan ≥4 weeks after the first scan in which a response was observed

SGO	VIRTUAL ANNUAL MEETING
2021	ON WOMEN'S CANCER®

Antitumor Activity per RECIST v1.1				
Variable, n (%)	Response-evaluable population (n=39)			
Complete response	0			
Partial response	7 (17.9)			
Stable disease	23 (59.0)			
Progressive disease	8 (20.5)			
Inconclusive	1 (2.6)			
ORR (90% CI), %	17.9 (8.7–31.1)			
DCR (90% CI), %	76.9 (63.2-87.4)			

Best Percent Change from Baseline Sum of Target Lesions by HRR and PD-L1 Status





Liu JF et al. SGO 2021;Abstract 10415.

A Phase 2, Two-Stage Study of Mirvetuximab Soravtansine (IMGN853) in Combination with Pembrolizumab in Patients with Microsatellite Stable (MSS) Endometrial Cancer (EC)

Porter RL et al. ASCO 2021;Abstract TPS5611.





Phase 2 study of PARP inhibitor Talazoparib and PD-L1 inhibitor Avelumab in patients (pts) with Recurrent Microsatellite Stable (MSS) Endometrial Cancer

Panagiotis Konstantinopoulos MD, PhD

Director of Translational Research Gynecologic Oncology Program Dana-Farber Cancer Institute Associate Professor of Medicine Harvard Medical School





A Phase 2, Two-Stage Study of Avelumab and Axitinib in Patients with Mismatch Repair Proficient (MMR-P) Recurrent or Persistent Endometrial Cancer (EC)

Lee EK et al. ASCO 2021;Abstract TPS5609.



Meet The Professor with Dr Liu

MODULE 1: Cases from the Practices of Gynecologic and Medical Oncologists

Cervical Cancer

- Dr Westin: A 52-year-old woman with metastatic squamous cell carcinoma of the cervix
- Dr Penson: A 39-year-old woman with metastatic squamous cell carcinoma of the cervix PD-L1-negative
- Dr Godoy: A 72-year-old woman with metastatic squamous cell carcinoma of the vulva PD-L1 50%

Endometrial Cancer

- Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus MSI-H, TMB-H, PD-L1-negative
- Dr Pothuri: A 78-year-old woman with HER2-positive metastatic endometrial cancer MSI-H/dMMR, TMB high, BRCA WT
- Dr Penson: A 74-year-old woman with MSS endometrioid adenocarcinoma PD-L1 0%
- Dr Duska: A 60-year-old woman with metastatic, MSS carcinosarcoma
- Dr Duska: A 69-year-old woman with ER/PR-positive metastatic endometrioid adenocarcinoma MMR proficient

MODULE 2: Journal Club with Dr Liu

MODULE 3: Beyond the Guidelines – Clinical Investigator Approaches to Common Clinical Scenarios

MODULE 4: Key Recent Data Sets

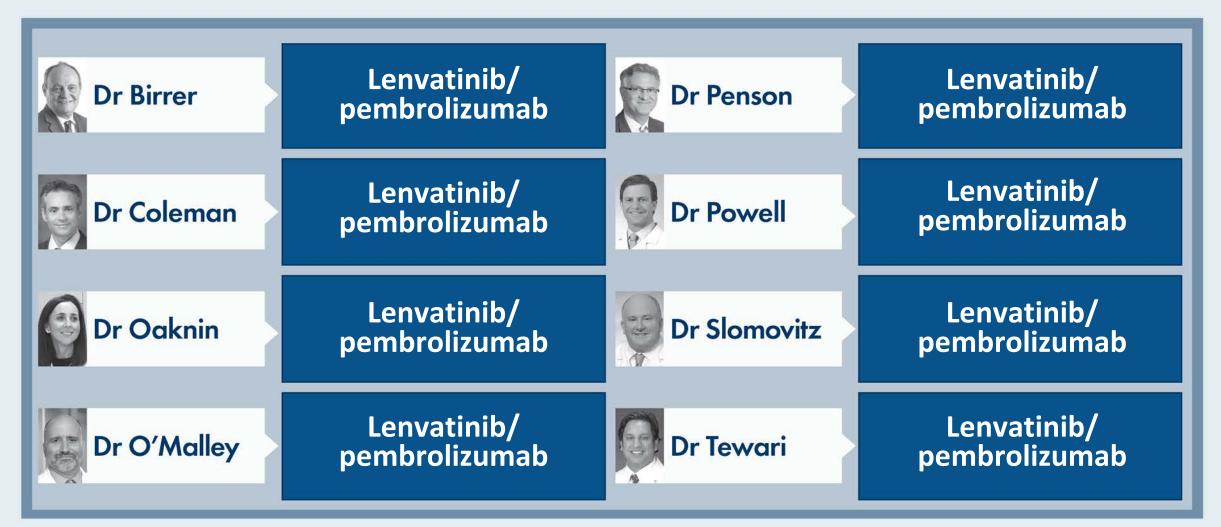


In general, what treatment would you recommend for a patient with <u>microsatellite-stable</u> metastatic endometrial cancer who experienced disease progression on carboplatin/paclitaxel?

- 1. Cisplatin/doxorubicin
- 2. Carboplatin/docetaxel
- 3. Lenvatinib/pembrolizumab
- 4. Test for PD-L1 combined positive score (CPS) and administer pembrolizumab if 1% or higher
- 5. Pembrolizumab
- 6. Other chemotherapy
- 7. Other



In general, what treatment would you recommend for a patient with metastatic endometrial cancer who experienced disease progression on carboplatin/paclitaxel if their disease was microsatellite stable (MSS)?





In general, what treatment would you recommend for a patient with <u>MSI-high</u> metastatic endometrial cancer who experienced disease progression on carboplatin/paclitaxel?

- 1. Cisplatin/doxorubicin
- 2. Carboplatin/docetaxel
- 3. Lenvatinib/pembrolizumab
- 4. Pembrolizumab
- 5. Other chemotherapy
- 6. Other

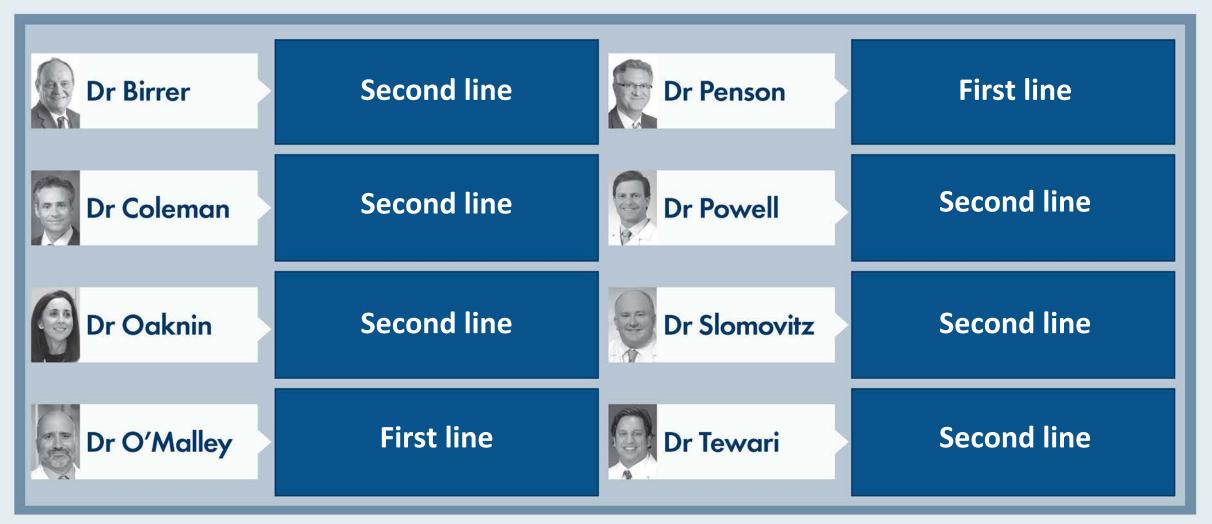


In general, what treatment would you recommend for a patient with metastatic endometrial cancer who experienced disease progression on carboplatin/paclitaxel if their disease was MSI high?

Dr Birrer	Pembrolizumab	Dr Penson	Pembrolizumab
Dr Coleman	Pembrolizumab	Dr Powell	Pembrolizumab
Dr Oaknin	Dostarlimab	Dr Slomovitz	Pembrolizumab
Dr O'Malley	Pembrolizumab	Dr Tewari	Pembrolizumab



For a patient with <u>MSI-high</u> metastatic endometrial cancer, outside of a clinical trial setting and regulatory and reimbursement issues aside, what is the earliest point at which you would introduce an anti-PD-1/PD-L1 antibody?





Regulatory and reimbursement issues aside, in general, what would be your preferred second-line therapy for a patient with MSS metastatic cervical cancer who experiences disease progression on carboplatin/paclitaxel/bevacizumab?

- 1. Other chemotherapy
- 2. Test for PD-L1 CPS and administer pembrolizumab if 1% or higher
- 3. Pembrolizumab
- 4. Cemiplimab
- 5. Other



In general, what would be your preferred second-line therapy for a patient with MSS metastatic cervical cancer who experienced disease progression on carboplatin/paclitaxel/bevacizumab?

Dr Birrer	Pembrolizumab	Dr Penson	Test for PD-L1 CPS and administer pembrolizumab if 1% or higher
Dr Coleman	Test for PD-L1 CPS and administer pembrolizumab if 1% or higher	Dr Powell	Test for PD-L1 CPS and administer pembrolizumab if 1% or higher
Dr Oaknin	Anti-PD-1/PD-L1 antibody in general	Dr Slomovitz	Test for PD-L1 CPS and administer pembrolizumab if 1% or higher
Dr O'Malley	Test for PD-L1 CPS and administer pembrolizumab if 1% or higher	Dr Tewari	Test for PD-L1 CPS and administer pembrolizumab if 1% or higher



A patient with PD-L1-positive metastatic cervical cancer experiences disease progression on platinum-based therapy and has significant symptoms from her disease. If tisotumab vedotin and cemiplimab were accessible, what would likely be your next line of treatment?

- 1. Pembrolizumab
- 2. Cemiplimab
- 3. Tisotumab vedotin
- 4. Other



Do you generally evaluate microsatellite instability status in your patients with advanced ovarian cancer?

- 1. Yes
- 2. No



Do you generally evaluate microsatellite instability status in your patients with advanced ovarian cancer?





Meet The Professor with Dr Liu

MODULE 1: Cases from the Practices of Gynecologic and Medical Oncologists

Cervical Cancer

- Dr Westin: A 52-year-old woman with metastatic squamous cell carcinoma of the cervix
- Dr Penson: A 39-year-old woman with metastatic squamous cell carcinoma of the cervix PD-L1-negative
- Dr Godoy: A 72-year-old woman with metastatic squamous cell carcinoma of the vulva PD-L1 50%

Endometrial Cancer

- Dr Shehadeh: An 84-year-old woman with metastatic adenocarcinoma of the uterus MSI-H, TMB-H, PD-L1-negative
- Dr Pothuri: A 78-year-old woman with HER2-positive metastatic endometrial cancer MSI-H/dMMR, TMB high, BRCA WT
- Dr Penson: A 74-year-old woman with MSS endometrioid adenocarcinoma PD-L1 0%
- Dr Duska: A 60-year-old woman with metastatic, MSS carcinosarcoma
- Dr Duska: A 69-year-old woman with ER/PR-positive metastatic endometrioid adenocarcinoma MMR proficient

MODULE 2: Journal Club with Dr Liu

MODULE 3: Beyond the Guidelines – Clinical Investigator Approaches to Common Clinical Scenarios



Anti-PD-1/PD-L1 Checkpoint Inhibitors in Endometrial Cancer



Interim Analysis of the Immune-Related Endpoints of the Mismatch Repair Deficient (dMMR) and Proficient (MMRp) Endometrial Cancer Cohorts from the GARNET Study

Pothuri B et al. SGO 2021;Abstract 10417.



GARNET: Immune-Related Secondary Endpoints

(irRECIST by investigator assessment)				
	dMMR	MMRp		
Variable	N=110	N=144		
Follow-up, median (range),	16.5	13.7		
months	(0.03–30.6)	(0.03–33.1)		
irORR, n (%)	50 (45.5)	20 (13.9)		
irCR	7 (6.4)	3 (2.1)		
irPR	43 (39.1)	17 (11.8)		
irSD	20 (18.2)	41 (28.5)		
irPD	36 (32.7)	63 (43.8)		
NE	4 (3.6)	20 (13.9)		
irDCR, ^a n (%)	70 (63.6)	61 (42.4)		
irDOR, ^b months	NR	12.2		

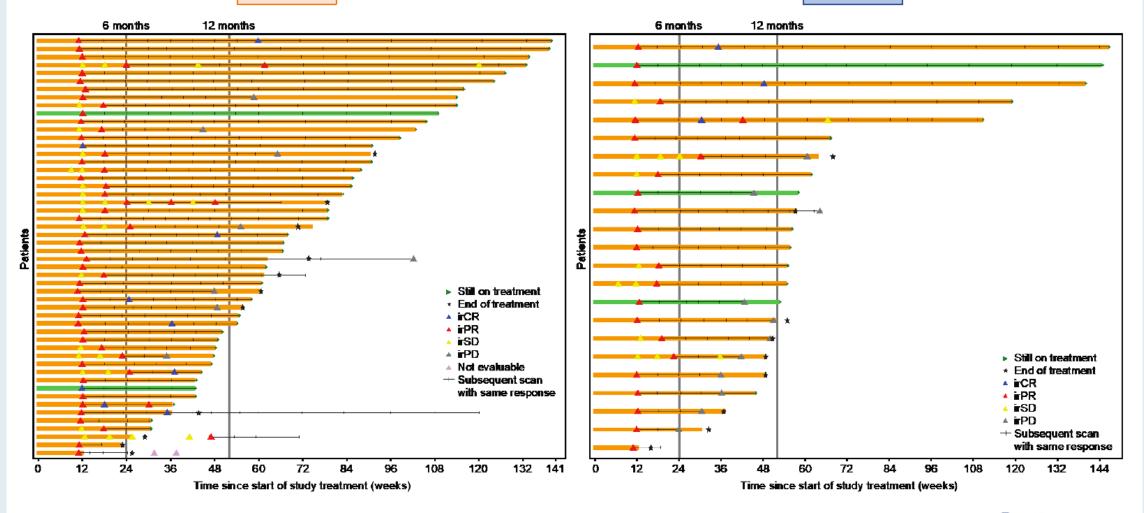
^aIncludes CR, PR, and SD \geq 12 weeks; ^bOnly includes responders.



GARNET: Duration of Response

dMMR



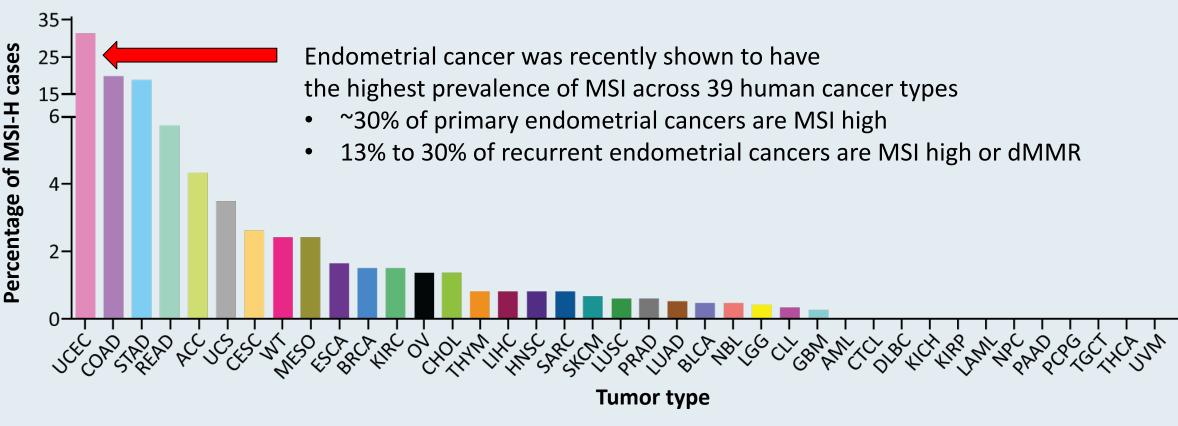




Pothuri B et al. SGO 2021;Abstract 10417.

High MSI Across 39 Cancer Types

Whole-exome data from 11,139 tumor-normal pairs from The Cancer Genome Atlas and Therapeutically Applicable Research to Generate Effective Treatments projects



UCEC = uterine corpus endometrial carcinoma



Bonneville R et al. JCO Precis Oncol 2017;2017:10.1200/PO.17.00073; Green AK et al. ASCO Educational Book 2020.

Anti-PD-1/PD-L1 Antibodies in Cervical Cancer



Phase III Trial of Cemiplimab Monotherapy in Advanced Cervical Cancer Stopped Early for Positive Result on Overall Survival Press Release – March 15, 2021

"Positive results demonstrating an overall survival (OS) benefit from the Phase 3 trial investigating the PD-1 inhibitor cemiplimab monotherapy compared to chemotherapy, in patients previously treated with chemotherapy whose cervical cancer is recurrent or metastatic were announced today. The trial will be stopped early based on a unanimous recommendation by the Independent Data Monitoring Committee (IDMC), and the data will form the basis of regulatory submissions in 2021 ...

"This is the largest Phase 3 randomized clinical trial in advanced cervical cancer and included women (median age: 51 years) with either squamous cell carcinoma or adenocarcinoma. Patients were randomized to receive cemiplimab monotherapy (350 mg every 3 weeks) or an investigator's choice of commonly used chemotherapy (pemetrexed, vinorelbine, topotecan, irinotecan or gemcitabine). Compared to chemotherapy, patients receiving cemiplimab experienced: Total population: 31% reduced risk of death; Squamous cell carcinoma: 27% reduced risk of death; Adenocarcinoma: 44% reduced risk of death. The primary endpoint for the trial was OS, analyzed first among patients with squamous cell carcinoma, then in the total population...

"Detailed results will be presented at an upcoming medical meeting."

https://finance.yahoo.com/news/phase-3-trial-libtayo-cemiplimab-060000401.html?guccounter=1



Anti-PD-1/PD-L1 Antibodies in Ovarian Cancer



Phase II MOONSTONE Study Design

Eligibility

- Completed 1-3 prior lines of therapy for advanced or metastatic ovarian cancer
- Previously treated with platinum-based chemo, taxane and bevacizumab
- Resistant to last administered platinum agent
- No known BRCA 1 or 2 mutation

Primary endpoint: ORR **Secondary endpoints:** DOR, PFS, OS, DCR





https://clinicaltrials.gov/ct2/show/NCT03955471?term=MOONSTONE&draw=2&rank=1

LEAP-005: Phase II Study of Lenvatinib (Len) plus Pembrolizumab (Pembro) in Patients (Pts) with Previously Treated Advanced Solid Tumours

Lwin Z et al. ESMO 2020;Abstract LBA41.



LEAP-005: Antitumor Activity in Ovarian Cancer Cohort

hort			100 - 90 -	~~~			6-month rate 47.1%		
			80- 70-	<u>د</u>		ጎ 🔰	Pts with Event	Median (95% Cl), mo	
		%	60-			1	55%	4.4 (4.0-8.5)	
		PFS,	50-				ц		
		Δ.	40-				L .		
			30-				4		
			20-						
			10-						
			0		I			1	_1
			0		3	e	5	9	12
			No. a	at risk		Time, n	nonths		
			31		23	9)	1	0

PFS: 4L Ovarian Cohort (n = 31)

	4L Ovarian Cohort (n = 31)
ORR	32.3%
CR	3%
PR	29%
DCR	74.2%
DoR (median, mo)	NR



Lwin Z et al. *ESMO* 2020; Abstract LBA41.

EFFICACY AND SAFETY RESULTS FROM NEOPEMBROV STUDY. A RANDOMIZED PHASE II TRIAL OF NEOADJUVANT CHEMOTHERAPY (CT) WITH OR WITHOUT PEMBROLIZUMAB (P) FOLLOWED BY INTERVAL DEBULKING SURGERY AND STANDARD SYSTEMIC THERAPY ± P FOR ADVANCED HIGH GRADE SEROUS CARCINOMA (HGSC). A GINECO STUDY.

Abstract 5500

<u>Isabelle Laure RAY-COQUARD¹</u>, Aude-Marie SAVOYE², Marie-Ange MOURET-REYNIER^{3,} Sylvie CHABAUD⁴, Olfa DERBEL⁵, Elsa KALBACHER⁶, Marianne LEHEURTEUR⁷, Alejandra MARTINEZ⁸, Corina CORNILA⁹, Mathilde MARTINEZ¹⁰, Leila BENGRINE LEFEVRE¹¹, Frank PRIOU¹², Nicolas CLOAREC¹³, Laurence VENAT-BOUVET¹⁴, Frederic SELLE¹⁵, Dominique BERTON¹⁶, Olivier COLLARD¹⁷, Florence JOLY¹⁸, Olivier TREDAN¹⁹

Centre Léon Bérard. University Claude Bernard. Lyon. GINECO. France¹; Institut Jean Godinot. Reims. GINECO. France²; Department of Medical Oncology. Centre Jean Perrin. Clermont-Ferrand. GINECO. France³; Departement of Clinical Research. Centre Léon-Bérard. Lyon. GINECO. France⁴; Institut de Cancérologie. Hôpital Privé Jean Mermoz. Lyon. GINECO. France⁵; CHU Jean Minjoz. Besançon. GINECO. France⁶; Centre Henri-Becquerel. Medical Oncology Department. Rouen. GINECO France⁷; Institut Claudius Régaud IUCT-O. Toulouse. GINECO France⁸; Centre Hospitalier Régional d'Orléans. Orleans. GINECO. France⁹; Clinique Pasteur. Toulouse. GINECO. France¹⁰; Centre Georges-François Leclerc. Dijon. GINECO.France¹¹; CHD Vendée-Hôpital Les Oudairies. La Roche-Sur-Yon. GINECO. France¹²; Centre Hospitalier d'Avignon. Avignon. GINECO.France¹³; Centre Hospitalier Diaconesses Croix Saint-Simon. Paris. GINECO. France¹⁵; Institut de Cancérologie de l'Ouest. Centre René Gauducheau. Saint-Herblain. GINECO. France¹⁶; Institut de Cancérologie de la Loire. St. Priest En Jarez. GINECO. France¹⁷; Department of Medical Oncology. Centre François Baclesse. Caen. GINECO. France¹⁸; Departement of Medical Oncology. Centre Léon Bérard. Lyon. GINECO. France¹⁹

Isabelle Ray-Coquard, Centre Leon Bérard

May, 2021

2021 ASCO

ANNUAL MEETING



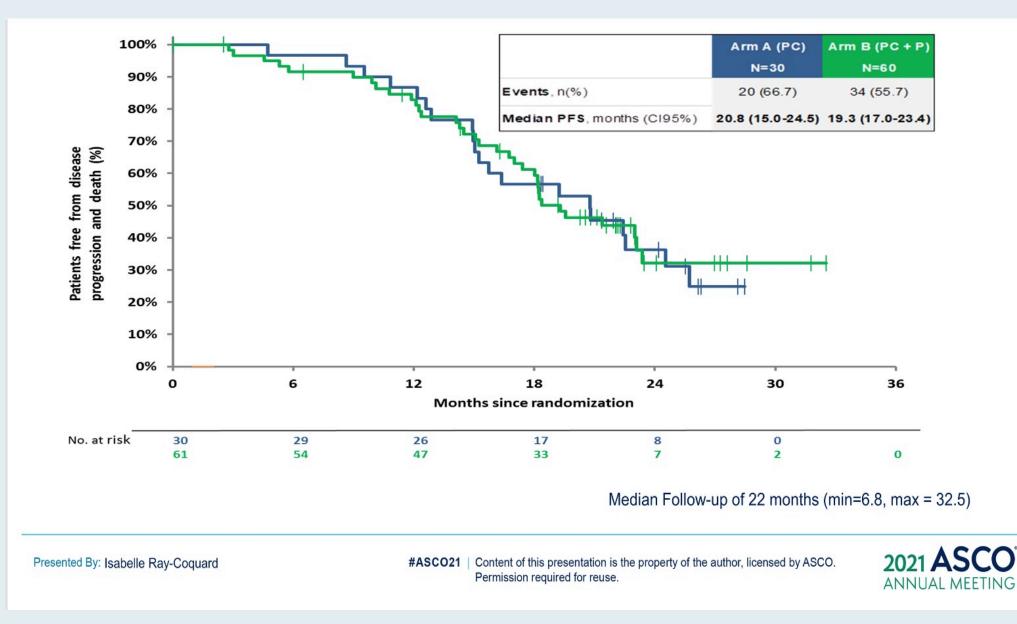
GINECO

NEOPEMBROV: Response to CT with or without Bevacizumab with or without Pembrolizumab

	Arm A (CP ± Bev) N = 30	Arm B (CP+ P ± Bev) N = 61
Interval debulking surgery performed (%) Yes No	29 (96.7) 1 (3.3)	58 (95.1) 3 (4.9)
Response at IDS (PCI Decrease) mean [std] Not evaluable	- 9.58 [8.58] 3	- 10.19 [9.27] 6
Primary Endpoint (ITT) Rate of complete debulking % [95% CI] Complete cytoreductive surgery (CC0) CC1 CC ≥ 3 or biopsies only	70% [53.5% -] 21 (72.4) 0 8 (27.6) N = 29	73.8% [62.9% -] 45 (77.5) 2 (3.4) 11 (18.9) N = 58
Response Rate after 4 cy NACT (RECIST) (%) Complete response Partial response Stable Progression Not evaluable <i>ORR (95% CI)</i>	2 (6.9) 16 (55.2) 11 (37.9) 0 (0.0) 1 62.1% [42.3-79.3]	2 (3.3) 42 (70.0) 14 (23.3) 2 (3.3) 1 73.3% [60.3-83.9]
Best Overall Response (%) Complete response Partial response Stable Not evaluable <i>CR+PR</i>	22 (75.9) 3 (10.3) 4 (13.8) 1 25 (83.3)	45 (75.0) 10 (16.7) 5 (8.3) 1 55 (90.1)
Ca125 normalization	22 (73.3)	46 (75.4)



NEOPEMBROV: Progression-Free Survival





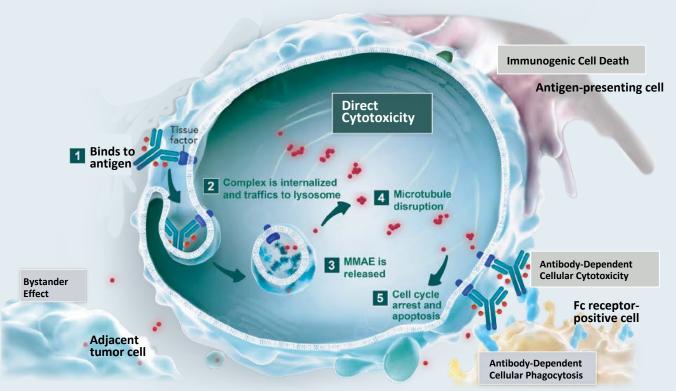
Ray-Coquard IL et al. ASCO 2021; Abstract 5500.

Tisotumab Vedotin and Other Novel Agents in Gynecologic Cancers



Mechanism of Action of Tisotumab Vedotin

- Tissue factor (TF) is aberrantly expressed in a broad range of solid tumours, including cervical cancer,^{1,2} and TF expression has been associated with higher tumour stage and grade, higher metastatic burden and poor prognosis²
- TF expression in cervical cancer makes TF a novel target for patients with cervical cancer
- ADC targets TF
 - Monoclonal Antibody targets TF
 - Payload: Microtubule disrupting MMAE
- Allowing for direct cytotoxicity and bystander killing, as well as antibody-dependent cellular cytotoxicity^{3,4}



Förster Y, et al. *Clin Chim Acta*, 2006.
 Cocco E, et al. *BMC Cancer*, 2011.
 Breij EC, et al. *Cancer Res*, 2014.
 De Goeij BE, et al. *Mol Cancer Ther*, 2015.



Data + Perspectives: Clinical Investigators Discuss the Current and Future Management of Acute Myeloid Leukemia and Myelodysplastic Syndromes

> A Virtual CME Satellite Symposium During the Society of Hematologic Oncology 2021 Annual Meeting

> > Wednesday, September 8, 2021 7:30 PM – 9:00 PM Central Time

Faculty

Courtney D DiNardo, MD, MSCE Daniel A Pollyea, MD, MS David Sallman, MD Eunice S Wang, 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.

