13th Annual Oncology Grand Rounds A Complimentary NCPD Live Webinar Series Held During the 46th Annual ONS Congress **Breast Cancer Tuesday, April 20, 2021** 8:30 AM - 10:00 AM ET **Oncology Nurse Practitioners Medical Oncologists Gretchen Santos Fulgencio, MSN, FNP-BC Carey K Anders, MD** Kathy D Miller, MD Allie Hershey, MSN, RN, ANP-BC, AOCNP Sara M Tolaney, MD, MPH **Kelly Leonard, MSN, FNP-BC**

> Moderator Neil Love, MD



Medical Oncologists

Oncology Nurse Practitioners



Carey K Anders, MD Duke Cancer Institute Durham, North Carolina



Gretchen Santos Fulgencio, MSN, FNP-BC University of California, San Francisco Berkeley, California



Kathy D Miller, MD The Indiana University Melvin and Bren Simon Cancer Center Indianapolis, Indiana



Allie Hershey, MSN, RN, ANP-BC, AOCNP Dana-Farber Cancer Institute Boston, Massachusetts



Sara M Tolaney, MD, MPH Dana-Farber Cancer Institute Associate Professor of Medicine Boston, Massachusetts



Kelly Leonard, MSN, FNP-BC Dana-Farber Cancer Institute Boston, Massachusetts



Commercial Support

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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, 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, 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, Turning Point Therapeutics Inc and Verastem Inc.



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



Dr Anders — Disclosures

Consulting Agreements	AstraZeneca Pharmaceuticals LP, Athenex, Eisai Inc, Elucida Oncology Inc, Genentech, a member of the Roche Group, Immunomedics Inc, Ipsen Biopharmaceuticals Inc, Novartis, Seagen Inc
Contracted Research	G1 Therapeutics, Lilly, Merck, Nektar, Novartis, Pfizer Inc, Puma Biotechnology Inc, Seagen Inc, Tesaro, A GSK Company, The Zion Pharma
Royalties	Jones and Bartlett Learning



Dr Miller — Disclosures

Consulting Agreements	AbbVie Inc, Athenex
Contracted Research	Astex Pharmaceuticals, BBI Solutions, CytomX Therapeutics, Pfizer Inc
Data and Safety Monitoring Board/Committee	AstraZeneca Pharmaceuticals LP, Merck, Roche Laboratories Inc



Dr Tolaney — Disclosures

Consulting Agreements	AstraZeneca Pharmaceuticals LP, Athenex, Bristol-Myers Squibb Company, Certara, CytomX Therapeutics, Daiichi Sankyo Inc, Eisai Inc, G1 Therapeutics, Genentech, a member of the Roche Group, Gilead Sciences Inc, Immunomedics Inc, Kyowa Kirin Co Ltd, Lilly, Merck, Mersana Therapeutics, NanoString Technologies, Nektar, Novartis, Odonate Therapeutics, OncoPep, OncoSec Medical, Pfizer Inc, Puma Biotechnology Inc, Samsung Bioepis, Sanofi Genzyme, Seagen Inc
Contracted Research	AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Cyclacel Pharmaceuticals Inc, Eisai Inc, Exelixis Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Immunomedics Inc, Lilly, Merck, NanoString Technologies, Nektar, Novartis, Odonate Therapeutics, Pfizer Inc, Sanofi Genzyme, Seagen Inc
Data and Safety Monitoring Board/Committee	Odonate Therapeutics



Ms Fulgencio — Disclosures

No relevant conflicts of interest to disclose.



Ms Hershey — Disclosures

No relevant conflicts of interest to disclose.

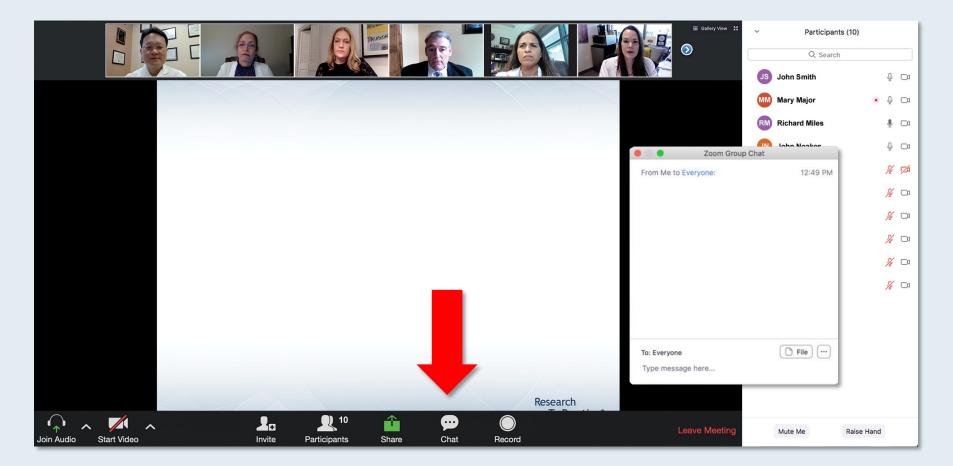


Ms Leonard — Disclosures

No relevant conflicts of interest to disclose.



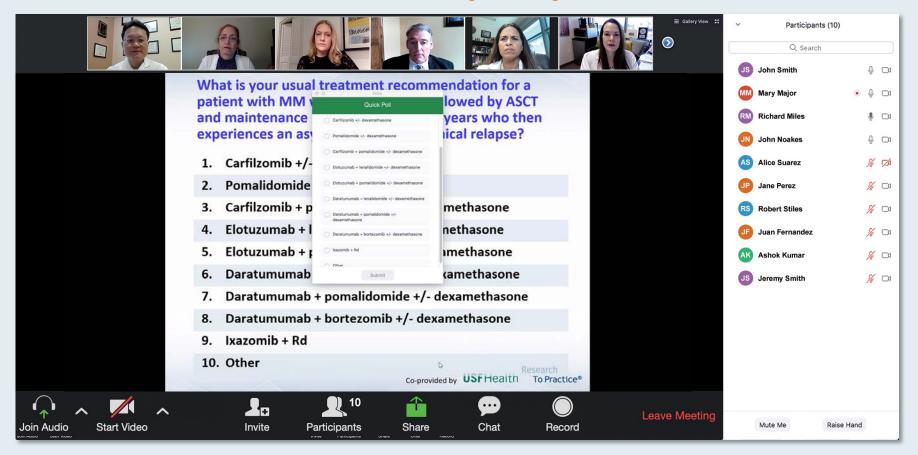
We Encourage Clinicians in Practice to Submit Questions



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



Familiarizing Yourself with the Zoom Interface How to answer poll questions

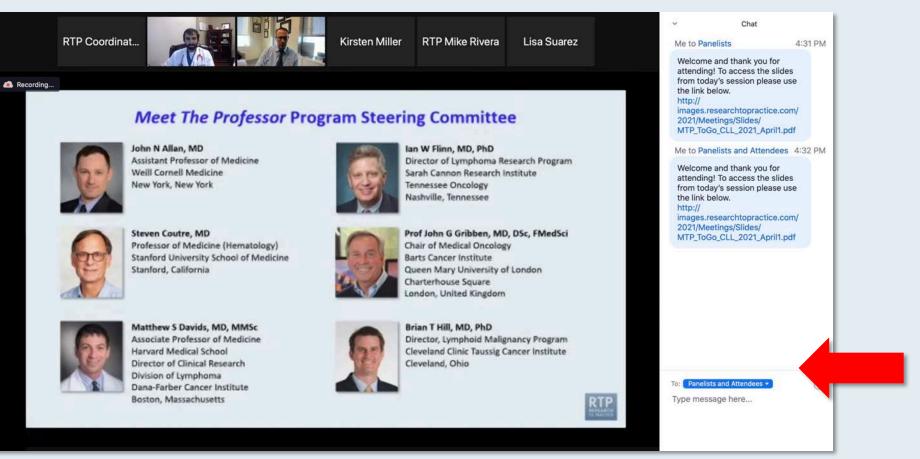


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ONCOLOGY TODAY WITH DR NEIL LOVE

Newly Approved Agents in HER2-Positive Metastatic Breast Cancer



DR MARK PEGRAM STANFORD UNIVERSITY SCHOOL OF MEDICINE









Dr Mark Pegram Newly Approved Ager Oncology Today with Dr Neil Love —

(15) (30)

13th Annual Oncology Grand Rounds

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Breast Cancer Tuesday, April 20, 2021 8:30 AM – 10:00 AM ET

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Colorectal and Gastroesophageal Cancers Wednesday, April 21, 2021 4:45 PM – 5:45 PM ET

Prostate Cancer Thursday, April 22, 2021 8:30 AM – 10:00 AM ET

Hodgkin and Non-Hodgkin Lymphomas Thursday, April 22, 2021 5:00 PM – 6:30 PM ET Multiple Myeloma Tuesday, April 27, 2021

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Chimeric Antigen Receptor T-Cell Therapy Thursday, April 29, 2021 5:00 PM – 6:30 PM ET



Ask the Expert: Clinical Investigators Provide Perspectives on the Management of Renal Cell Carcinoma

In Partnership with Project Echo® and Florida Cancer Specialists

Tuesday, May 4, 2021 5:00 PM – 6:00 PM ET

Faculty Chung-Han Lee, MD, PhD

> Moderator Neil Love, MD



Current Concepts and Recent Advances in Oncology A Daylong Clinical Summit Hosted in Partnership with Medical Oncology Association of Southern California (MOASC)

> Saturday, May 15, 2021 10:30 AM – 6:30 PM ET



Saturday, May 15, 2021

10:30 AM — Breast Cancer Ruth O'Regan, Tiffany A Traina

11:30 AM — Multiple Myeloma Kenneth Anderson, Noopur Raje

12:50 PM — Chronic Lymphocytic Leukemia and Lymphomas Craig Moskowitz, Jeff Sharman

1:50 PM — Genitourinary Cancers Joaquim Bellmunt, Sumanta Kumar Pal



Saturday, May 15, 2021

3:15 PM — Gastrointestinal Cancers Wells A Messersmith, Eileen M O'Reilly

4:15 PM — Acute Myeloid Leukemia and Myelodysplastic Syndromes Harry Paul Erba, Rami Komrokji

5:35 PM — Lung Cancer D Ross Camidge, Benjamin Levy



Up for Debate: Oncology Investigators Provide Their Take on Current Controversies in Patient Care A Daylong Multitumor Educational Webinar in Partnership with Florida Cancer Specialists

> Saturday, May 22, 2021 10:15 AM – 4:15 PM ET



Saturday, May 22, 2021

- 10:15 AM Lung Cancer John V Heymach, Stephen V Liu
- **11:30 AM Genitourinary Cancers** Maha Hussain, Elizabeth R Plimack
- **12:45 PM Chronic Lymphocytic Leukemia and Lymphomas** Jonathan W Friedberg, Laurie H Sehn
- 2:00 PM Multiple Myeloma Irene M Ghobrial, Sagar Lonial
- **3:15 PM Breast Cancer** Virginia Kaklamani, Nancy U Lin



Thank you for joining us!

NCPD credit information will be emailed to each participant within 3 business days.



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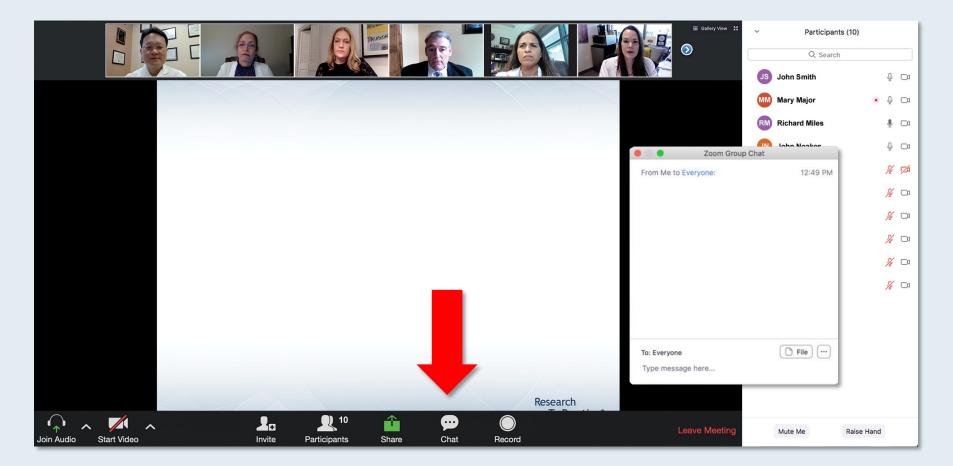
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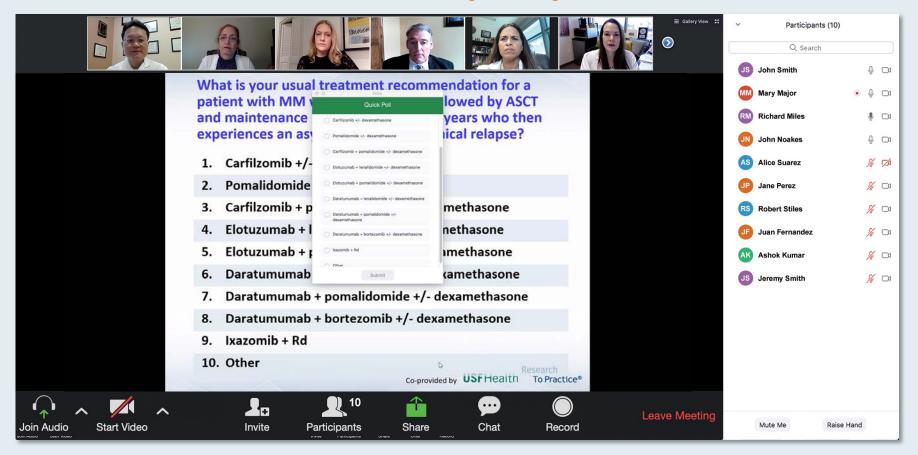
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Medical Oncologists



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Chair and Professor Department of Hematology and Medical Oncology Anne and Bernard Gray Family Chair in Cancer Chief Medical Officer Winship Cancer Institute Emory University School of Medicine Atlanta, Georgia



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Noopur Raje, MD

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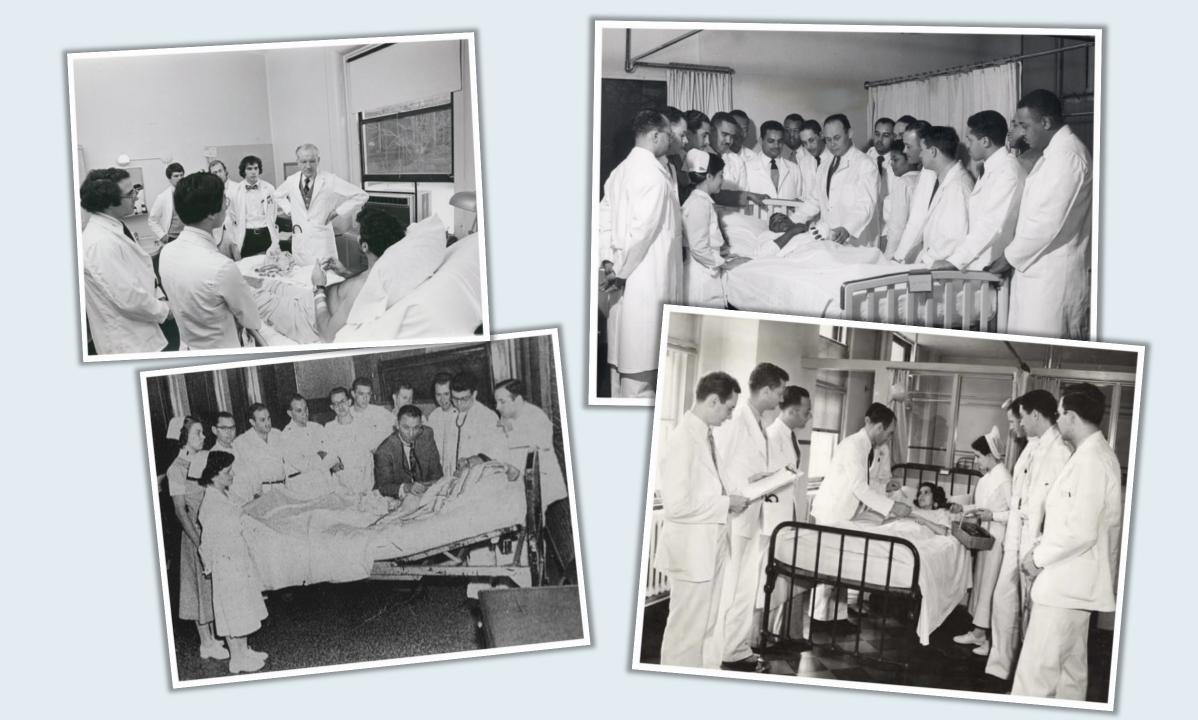
Elizabeth Zerante, MS, AGACNP-BC APN Inpatient Hematopoietic Cellular Therapy Service University of Chicago Medicine Chicago, Illinois



Oncology Grand Rounds Nursing Webinar Series

Monday	Tuesday	Wednesday	Thursday	Friday
19	20 Breast Ca 8:30 AM	AML 12:00 PM	22 Prostate Ca 8:30 AM	23
	Lung Ca 5:00 PM	CRC and GI Ca 4:45 PM	Lymphomas 5:00 PM	
26	27 Multiple Myeloma 8:30 AM GYN 5:00 PM	28 Bladder Ca 12:00 PM	29 CLL 8:30 AM CAR-T 5:00 PM	30







The Core Oncology Triad Developing an Individualized Oncology Strategy





13th Annual Oncology Grand Rounds

Oncology Nurse Practitioners Case Presentations

- Key patient-education issues
- Biopsychosocial considerations:
 - Family/loved ones
 - The bond that heals

Clinical Investigators Oncology Strategy

- New agents and regimens
- Predictive biomarkers
- Ongoing research and implications



Research To Practice's 2019 San Antonio Breast Cancer Symposia

DATA + PERSPECTIVES Clinical Investigators Explore the Current and Future Management of ER-Positive Breast Cancer

> Wednesday, December 11, 2019 7:30 PM – 9:00 PM San Antonio, Texas

> > Moderator Neil Love, MD

Faculty

Harold J Burstein, MD, PhD Matthew Goetz, MD Stephen RD Johnston, MA, PhD Joseph A Sparano, MD

DATA + PERSPECTIVES Clinical Investigators Explore the Current and Future Management of HER2-Positive Breast Cancer

Friday, December 13, 2019 7:30 PM – 9:00 PM San Antonio, Texas

> Moderator Neil Love, MD

> > Faculty

Adam M Brufsky, MD, PhD Lisa A Carey, MD Sara Hurvitz, MD Martine J Piccart-Gebhart, MD, PhD

> Research To Practice*

DATA + PERSPECTIVES Clinical Investigators Explore the Current and Future Management of Triple-Negative Breast Cancer

> Thursday, December 12, 2019 7:30 PM – 9:00 PM San Antonio, Texas

> > Moderator Neil Love, MD

> > > Faculty

Erika Hamilton, MD Professor Sherene Loi, MBBS, PhD Mark E Robson, MD Hope S Rugo, MD

> Research To Practice*



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> Moderator Neil Love, MD





Kelly Leonard, MSN, FNP-BC



Agenda

Cases from the Practices of Ms Fulgencio, Ms Hershey and Ms Leonard

Module 1: ER-Positive

- Case 1 (Ms Fulgencio): A 31-year-old woman with localized ER/PR-positive, HER2-negative breast cancer and 3 positive nodes
- Case 2 (Ms Leonard): A 53-year-old woman with ER-positive, HER2-negative metastatic breast cancer and a PIK3CA tumor mutation

Module 2: HER2-Positive

- Case 3 (Ms Leonard): A 33-year-old woman with localized ER/PR-positive, HER2-positive breast cancer and residual disease after neoadjuvant treatment
- Case 4 (Ms Fulgencio): A 70-year-old woman with metastatic HER2-positive breast cancer
- Case 5 (Ms Hershey): A 44-year-old woman with ER/PR-positive, HER2-positive metastatic breast cancer
- Case 6 (Ms Leonard): A 64-year-old woman with ER-positive, HER2-positive metastatic breast cancer and brain metastases

Module 3: Triple-Negative

• Case 7 (Ms Hershey): A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive



Ms Leonard: Reflections on Being an Oncology Nurse





Agenda

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Case Presentation – A 31-year-old woman with localized ER/PR-positive, HER2-negative breast cancer and 3 positive nodes (Part 1)



Ms Fulgencio

- Systems engineer diagnosed with Stage IIB breast cancer with 3 of 8 positive nodes
- Experienced noticeable fatigue and cognitive issues associated with adjuvant chemotherapy



Case Presentation – A 31-year-old woman with localized ER/PR-positive, HER2-negative breast cancer and 3 positive nodes (Part 2)



Ms Fulgencio

- Systems engineer diagnosed with Stage IIB breast cancer with 3 of 8 positive nodes
- Experienced noticeable fatigue and cognitive issues associated with adjuvant chemotherapy
- Started on chemotherapy, LHRH agonist, aromatase inhibitor, zoledronic acid and considering abemaciclib



Which of the following toxicities is more common with palbociclib and ribociclib than with abemaciclib?

- 1. Gastrointestinal toxicity
- 2. Neutropenia
- 3. Anemia
- 4. Peripheral neuropathy
- 5. I don't know



Which of the following toxicities is more common with abemaciclib than with palbociclib and ribociclib?

- 1. Diarrhea
- 2. Neutropenia
- 3. Anemia
- 4. Peripheral neuropathy
- 5. I don't know

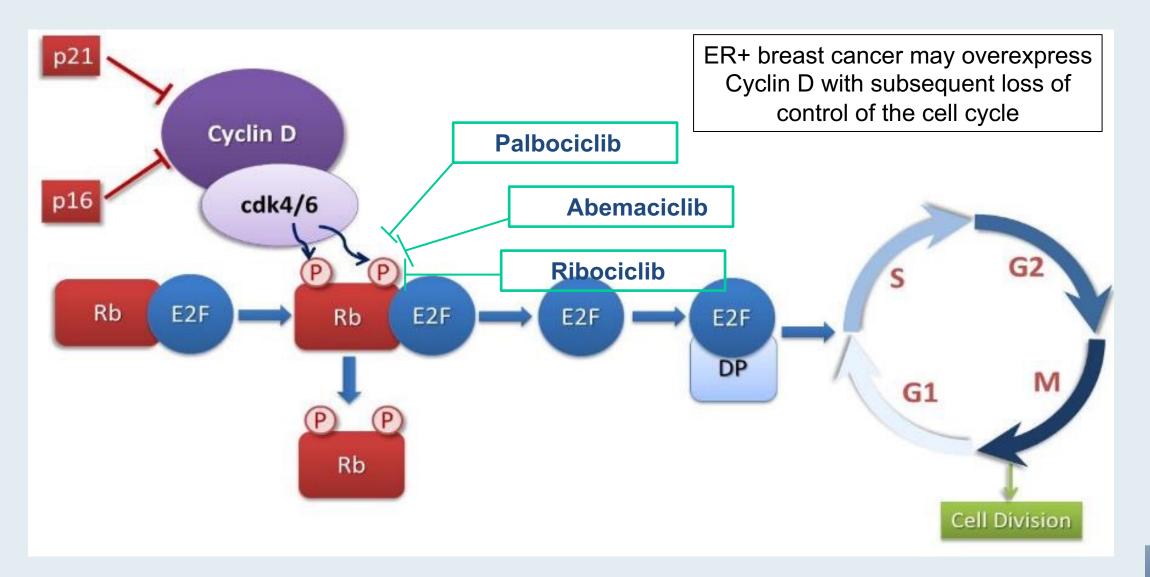


Which CDK4/6 inhibitor requires that an electrocardiogram be conducted prior to the initiation of treatment?

- 1. Palbociclib
- 2. Ribociclib
- 3. Abemaciclib
- 4. I don't know



CDK4/6 Regulates Cell Cycle Progression





Adapted from Finn et al, 2016.

What effect was observed in the Phase III trial of adjuvant abemaciclib?

- 1. Fewer recurrences
- 2. Fewer deaths
- 3. Both



J Clin Oncol 2020;38(34):3987-98.

Abemaciclib Combined With Endocrine Therapy for the Adjuvant Treatment of HR+, HER2-, Node-Positive, High-Risk, Early Breast Cancer (monarchE) Stephen R. D. Johnston, MD, PhD¹; Nadia Harbeck, MD, PhD²; Roberto Hegg, MD, PhD³; Masakazu Toi, MD, PhD⁴; Miguel Martin, MD, PhD⁵; Zhi Min Shao, MD⁶; Qing Yuan Zhang, MD, PhD⁷; Jorge Luis Martinez Rodriguez, MD⁸;

Stephen R. D. Johnston, MD, PhD¹; Nadia Harbeck, MD, PhD²; Roberto Hegg, MD, PhD³; Masakazu Toi, MD, PhD⁴; Miguel Martin, MD, PhD⁵; Zhi Min Shao, MD⁶; Qing Yuan Zhang, MD, PhD⁷; Jorge Luis Martinez Rodriguez, MD⁸; Mario Campone, MD, PhD⁹; Erika Hamilton, MD¹⁰; Joohyuk Sohn, MD, PhD¹¹; Valentina Guarneri, MD, PhD¹²; Morihito Okada, MD, PhD¹³; Frances Boyle, MD, MBBS, PhD¹⁴; Patrick Neven, MD, PhD¹⁵; Javier Cortés, MD, PhD¹⁶; Jens Huober, MD¹⁷; Andrew Wardley, MD, MBChB¹⁸; Sara M. Tolaney, MD, MPH¹⁹; Irfan Cicin, MD²⁰; Ian C. Smith, MD^{21,22}; Martin Frenzel, PhD²²; Desirée Headley, MSc²²; Ran Wei, PhD²²; Belen San Antonio, PhD²²; Maarten Hulstijn, PhD²²; Joanne Cox, MD²²; Joyce O'Shaughnessy, MD²³; and Priya Rastogi, MD²⁴; on behalf of the monarchE Committee Members and Investigators

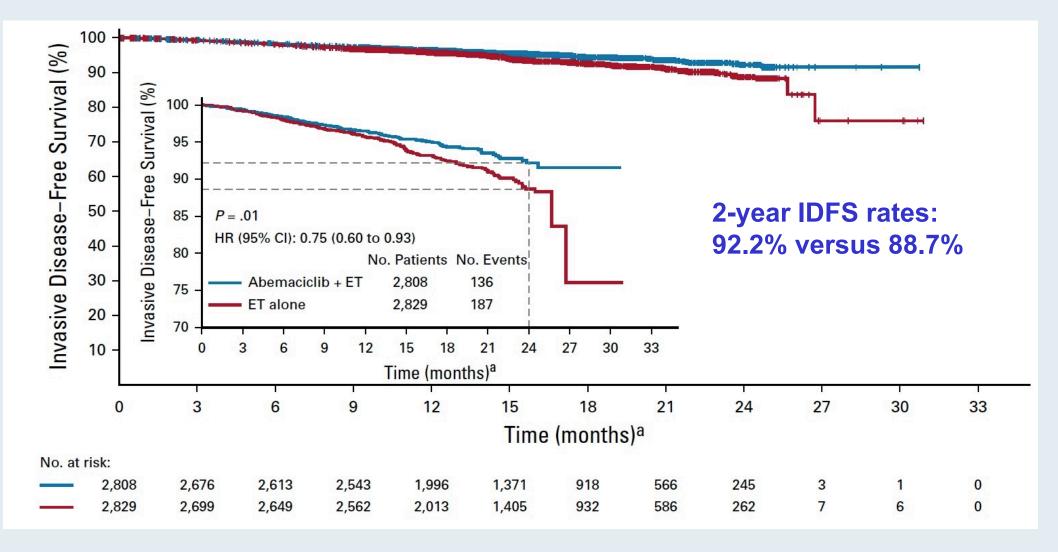
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monarchE: Invasive Disease-Free Survival (IDFS) (Zoomed in to better show separation of curves)





Johnston SRD et al. J Clin Oncol 2020;38(34):3987-98.

Articles

Lancet Oncol 2021;22:212-22



Palbociclib with adjuvant endocrine therapy in early breast cancer (PALLAS): interim analysis of a multicentre, open-label, randomised, phase 3 study

Erica L Mayer, Amylou C Dueck, Miguel Martin, Gabor Rubovszky, Harold J Burstein, Meritxell Bellet-Ezquerra, Kathy D Miller, Nicholas Zdenkowski, Eric P Winer, Georg Pfeiler, Matthew Goetz, Manuel Ruiz-Borrego, Daniel Anderson, Zbigniew Nowecki, Sibylle Loibl, Stacy Moulder, Alistair Ring, Florian Fitzal, Tiffany Traina, Arlene Chan, Hope S Rugo, Julie Lemieux, Fernando Henao, Alan Lyss, Silvia Antolin Novoa, Antonio C Wolff, Marcus Vetter, Daniel Egle, Patrick G Morris, Eleftherios P Mamounas, Miguel J Gil-Gil, Aleix Prat, Hannes Fohler, Otto Metzger Filho, Magdalena Schwarz, Carter DuFrane, Debora Fumagalli, Kathy Puyana Theall, Dongrui Ray Lu, Cynthia Huang Bartlett, Maria Koehler, Christian Fesl, Angela DeMichele^{*}, Michael Gnant^{*}



Therapy for premenopausal women with ER-positive metastatic breast cancer who undergo ovarian suppression or ablation is generally approached in the same manner as is therapy for postmenopausal patients.

- 1. Agree
- 2. Disagree
- 3. I don't know



Randomized Trials of Endocrine Therapy +/- CDK4/6 Inhibition

Line	Trial	Schema	PFS HR compared to endocrine alone	OS HR compared to endocrine alone	
First line	PALOMA-1	Letrozole ± palbociclib	0.49	0.897	
	PALOMA-2	Letrozole ± palbociclib	0.58	NR	
	MONALEESA-2	Letrozole ± ribociclib	0.56	0.75	
	MONALEESA-3	Fulvestrant ± ribociclib	0.55	0.72	
	MONALEESA-7 (premenopausal)	Goserelin + Al or tamoxifen ± ribociclib	0.55	0.71	
	MONARCH 3	Letrozole or anastrozole, ± abemaciclib	0.54	NR	
Second line	PALOMA-3	Fulvestrant ± palbociclib	0.46	0.75	
	MONARCH 2	Fulvestrant ± abemaciclib	0.55	0.757	



Courtesy of Dr Harold Burstein; Updated with MONALEESA-3 and MONALEESA-7

Common Side Effects and Dosing of CDK4/6 Inhibitors

	Palbociclib		Abemaciclib		Ribociclib	
Dosing	125 mg qd		200 mg BID		600 mg qd	
	3 wk on, 1 wk off		continuously		3 wk on, 1 wk off	
Common adverse events	All grades	Grade 3/4	All grades	Grade 3/4	All grades	Grade 3/4
Neutropenia	95%	54%	88%	27%	46%	29%
Thrombocytopenia	76%	19%	42%	2%	37%	10%
Diarrhea	16%	0	90%	20%	22%	3%
Nausea	23%	0	65%	5%	46%	2%
Vomiting	5%	0	35%	2%	25%	0



Barroso-Sousa R et al. *Breast Care* 2016;11:167-73.

Agenda

Cases from the Practices of Ms Fulgencio, Ms Hershey and Ms Leonard

Module 1: ER-Positive

- Case 1 (Ms Fulgencio): A 31-year-old woman with localized ER/PR-positive, HER2-negative breast cancer and 3 positive nodes
- Case 2 (Ms Leonard): A 53-year-old woman with ER-positive, HER2-negative metastatic breast cancer and a PIK3CA tumor mutation

Module 2: HER2-Positive

- Case 3 (Ms Leonard): A 33-year-old woman with localized ER/PR-positive, HER2-positive breast cancer and residual disease after neoadjuvant treatment
- Case 4 (Ms Fulgencio): A 70-year-old woman with metastatic HER2-positive breast cancer
- Case 5 (Ms Hershey): A 44-year-old woman with ER/PR-positive, HER2-positive metastatic breast cancer
- Case 6 (Ms Leonard): A 64-year-old woman with ER-positive, HER2-positive metastatic breast cancer and brain metastases

Module 3: Triple-Negative

• Case 7 (Ms Hershey): A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive



Case Presentation – A 53-year-old woman with ER-positive, HER2-negative metastatic breast cancer and a PIK3CA tumor mutation



Ms Leonard

- Married mother of 2 teenage children whose disease has progressed on CDK4/6 inhibitors, everolimus and multiple chemotherapies
- Treated with alpelisib with fulvestrant
- Management of hyperglycemia associated with alpelisib



Ms Fulgencio: Patient Education on Alpelisib (Part 1)





Ms Fulgencio: Patient Education on Alpelisib (Part 2)



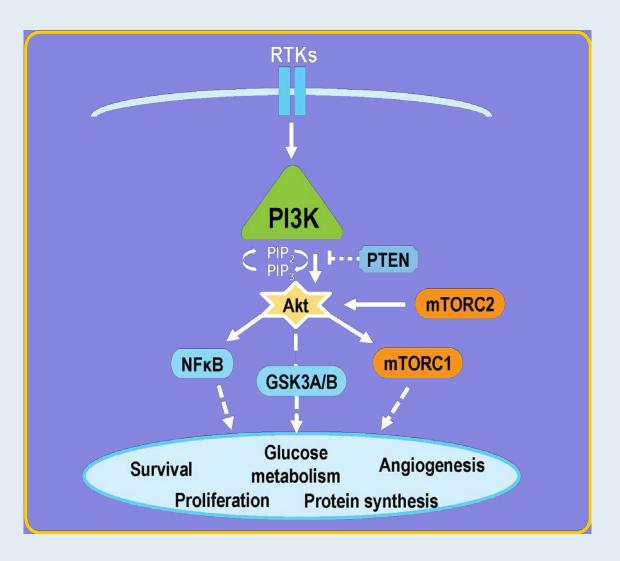


The PI3 kinase inhibitor alpelisib is used for patients with metastatic ER-positive, HER2-negative breast cancer with a...

- 1. PIK3CA germline mutation
- 2. PIK3CA somatic mutation
- 3. PIK3CA amplification
- 4. All of the above
- 5. I don't know



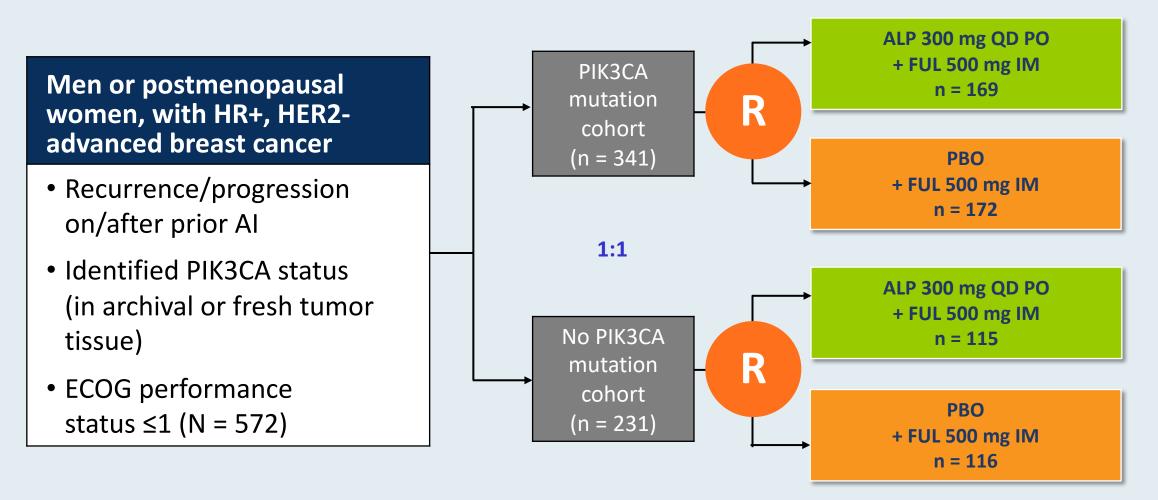
PI3K Inhibitors: Mechanism of Action



- PI3K is involved in the activation of Akt.
- Hyperactivation of the PI3K pathway is implicated in malignant transformation, cancer progression and endocrine therapy resistance.
- PIK3CA encodes the alpha isoform of the PI3K catalytic subunit.
- Around 40% of patients with HR+, HER- BC present with an activating PIK3CA tumor mutation.
- Alpelisib is a specific inhibitor of the PI3K alpha isoform.



SOLAR-1 Phase III Study Design



Primary endpoint: Locally assessed PFS in PIK3CA mutation cohort







ORIGINAL ARTICLE

Alpelisib plus fulvestrant for *PIK3CA*-mutated, hormone receptor-positive, human epidermal growth factor receptor-2—negative advanced breast cancer: final overall survival results from SOLAR-1

F. André^{1*}, E. M. Ciruelos², D. Juric³, S. Loibl⁴, M. Campone⁵, I. A. Mayer⁶, G. Rubovszky⁷, T. Yamashita⁸, B. Kaufman⁹, Y.-S. Lu¹⁰, K. Inoue¹¹, Z. Pápai¹², M. Takahashi¹³, F. Ghaznawi¹⁴, D. Mills¹⁵, M. Kaper¹⁴, M. Miller¹⁴, P. F. Conte¹⁶, H. Iwata¹⁷ & H. S. Rugo¹⁸

¹Department of Medical Oncology, Institut Gustave Roussy, Villejuif and Paris Saclay University, Orsay, France; ²Medical Oncology, Hospital Universitario 12 de Octubre, Madrid, Spain; ³Department of Medicine, Massachusetts General Hospital Cancer Center, Boston, USA; ⁴Department of Medicine and Research, German Breast Group, GBG Forschungs GmbH, Neu-Isenburg, Germany; ⁵Medical Oncology, Institut de Cancerologie de l'Ouest, Saint-Herblain, Nantes Cedex, France; ⁶Hematology/ Oncology, Vanderbilt University, Nashville, USA; ⁷Department of Medical Oncology and Clinical Pharmacology, National Institute of Oncology, Budapest, Hungary; ⁸Department of Breast and Endocrine Surgery, Kanagawa Cancer Center, Yokohama, Japan; ⁹Medical Oncology, Tel Aviv University, Sheba Medical Centre, Tel Hashomer, Israel; ¹⁰Medical Oncology, National Taiwan University Hospital, Taipei, Taiwan; ¹¹Breast Surgery, Saitama Cancer Center, Saitama, Japan; ¹²Medical Oncology, Hungarian Defence Forces Medical Centre, Budapest, Hungary; ¹³Breast Surgery, NHO Hokkaido Cancer Center, Sapporo, Japan; ¹⁴Novartis Pharmaceuticals Corporation, East Hanover, USA; ¹⁵Novartis Pharma AG, Basel, Switzerland; ¹⁶Medical Oncology, Universita di Padova and Oncologia Medica 2, Istituto Oncologico Veneto IRCCS, Padua, Italy; ¹⁷Breast Oncology, Aichi Cancer Center Hospital, Aichi, Japan; ¹⁸Breast Department, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, USA



Available online 25 November 2020

Ann Oncol 2021;32(2):208-17.



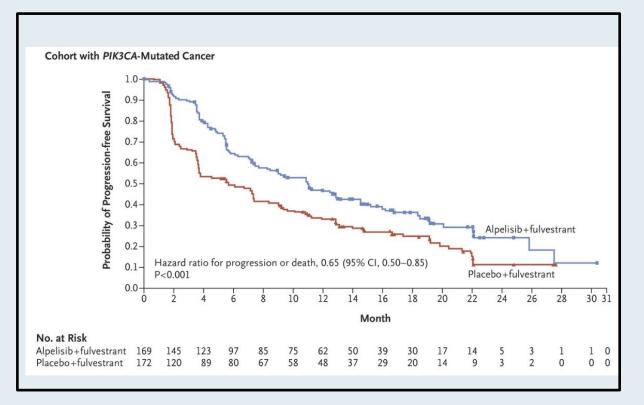
SOLAR-1: Response

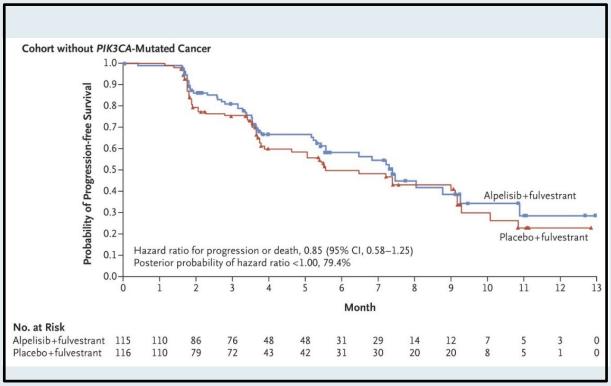
Response	Alpelisib-Fulvestrant Group	Placebo-Fulvestrant Group
All patients		
No. of patients	169	172
Confirmed best overall response — no. (%)		
Complete response	1 (0.6)	2 (1.2)
Partial response	44 (26.0)	20 (11.6)
Stable disease	58 (34.3)	63 (36.6)
Neither complete response nor progressive disease*	38 (22.5)	25 (14.5)
Progressive disease	16 (9.5)	53 (30.8)
Unknown status	12 (7.1)	9 (5.2)
Overall response†		
No. of patients	45	22
Percentage of patients (95% CI)	26.6 (20.1-34.0)	12.8 (8.2-18.7)
Clinical benefit:		
No. of patients	104	78
Percentage of patients (95% CI)	61.5 (53.8-68.9)	45.3 (37.8-53.1)



André F et al. *N Engl J Med* 2019;380:1929-40.

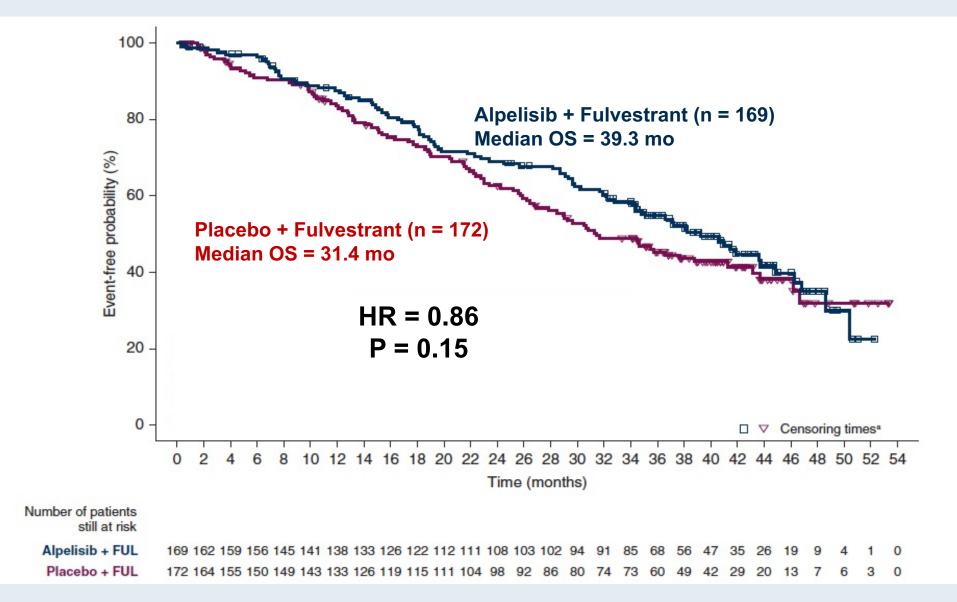
SOLAR-1: PFS Outcomes by PIK3CA Mutation Status







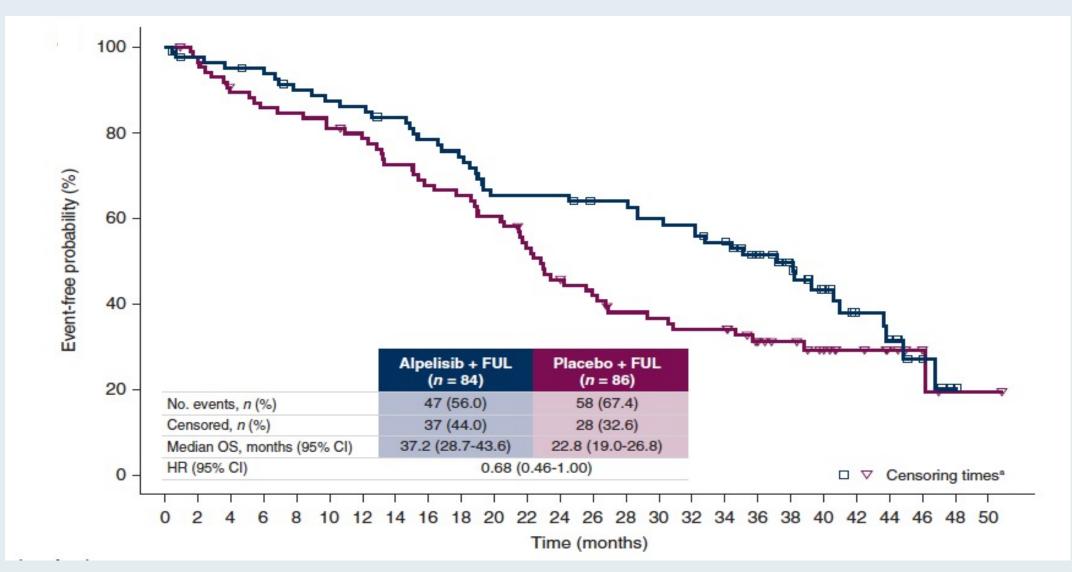
SOLAR-1: OS in Patients with Advanced BC with a PIK3CA Mutation





André F et al. Ann Oncol 2021;32(2):208-17.

SOLAR-1: OS in Patients with BC with PIK3CA Mutations and Lung/Liver Metastases





André F et al. Ann Oncol 2021;32(2):208-17.

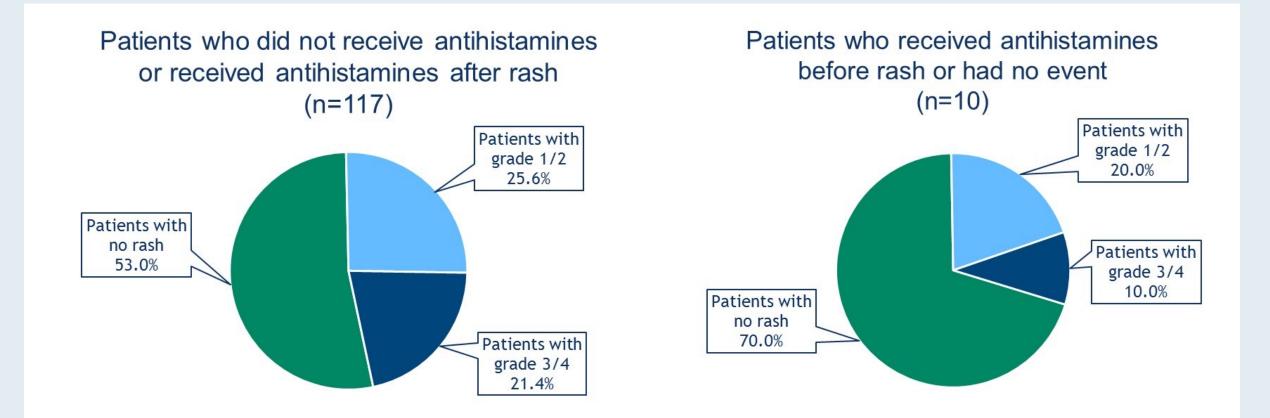
SOLAR-1: Select Adverse Events in Overall Patient Population

Adverse Event	Alpelisib–Fulvestrant Group (N = 284)		Placebo–Fulvestrant Group (N=287)			
	Any Grade	Grade 3	Grade 4	Any Grade	Grade 3	Grade 4
	number of patients (percent)					
Any adverse event	282 (99.3)	183 (64.4)	33 (11.6)	264 (92.0)	87 (30.3)	15 (5.2)
Hyperglycemia	181 (63.7)	93 (32.7)	11 (3.9)	28 (9.8)	1 (0.3)	1 (0.3)
Diarrhea	164 (57.7)	19 (6.7)	0	45 (15.7)	1 (0.3)	0
Nausea	127 (44.7)	7 (2.5)	0	64 (22.3)	1 (0.3)	0
Decreased appetite	101 (35.6)	2 (0.7)	0	30 (10.5)	1 (0.3)	0
Rash	101 (35.6)	28 (9.9)	0	17 (5.9)	1 (0.3)	0



André F et al. *N Engl J Med* 2019;380:1929-40.

BYLieve: Incidence of Rash with and without Prophylactic Antihistamines





Rugo HS et al. ASCO 2020; Abstract 1006.

Agenda

Cases from the Practices of Ms Fulgencio, Ms Hershey and Ms Leonard

Module 1: ER-Positive

- Case 1 (Ms Fulgencio): A 31-year-old woman with localized ER/PR-positive, HER2-negative breast cancer and 3 positive nodes
- Case 2 (Ms Leonard): A 53-year-old woman with ER-positive, HER2-negative metastatic breast cancer and a PIK3CA tumor mutation

Module 2: HER2-Positive

- Case 3 (Ms Leonard): A 33-year-old woman with localized ER/PR-positive, HER2-positive breast cancer and residual disease after neoadjuvant treatment
- Case 4 (Ms Fulgencio): A 70-year-old woman with metastatic HER2-positive breast cancer
- Case 5 (Ms Hershey): A 44-year-old woman with ER/PR-positive, HER2-positive metastatic breast cancer
- Case 6 (Ms Leonard): A 64-year-old woman with ER-positive, HER2-positive metastatic breast cancer and brain metastases

Module 3: Triple-Negative

• Case 7 (Ms Hershey): A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive



Case Presentation – A 33-year-old woman with localized ER/PR-positive, HER2-positive breast cancer and residual disease after neoadjuvant treatment (Part 1)



Ms Leonard

- Veterinary technician with residual disease after treatment with neoadjuvant TCHP and surgery
- Currently treated with T-DM1 and tolerating treatment well



Case Presentation – A 33-year-old woman with localized ER/PR-positive, HER2-positive breast cancer and residual disease after neoadjuvant treatment (Part 2)



Ms Leonard

- Veterinary technician with residual disease after treatment with neoadjuvant TCHP and surgery
- Currently treated with T-DM1 and tolerating treatment well
- Fertility preservation



A 60-year-old woman presents with a palpable 2.5-cm breast mass that on biopsy is diagnosed as an ER-negative, HER2-positive infiltrating ductal carcinoma (IDC). Biopsy of a small axillary lymph node is positive. In general, the most common next step in this situation is...

- Surgery to remove the primary tumor and axillary dissection followed by systemic therapy
- 2. Neoadjuvant systemic therapy followed by surgery
- 3. Either a or b
- 4. Neither a nor b
- 5. I don't know

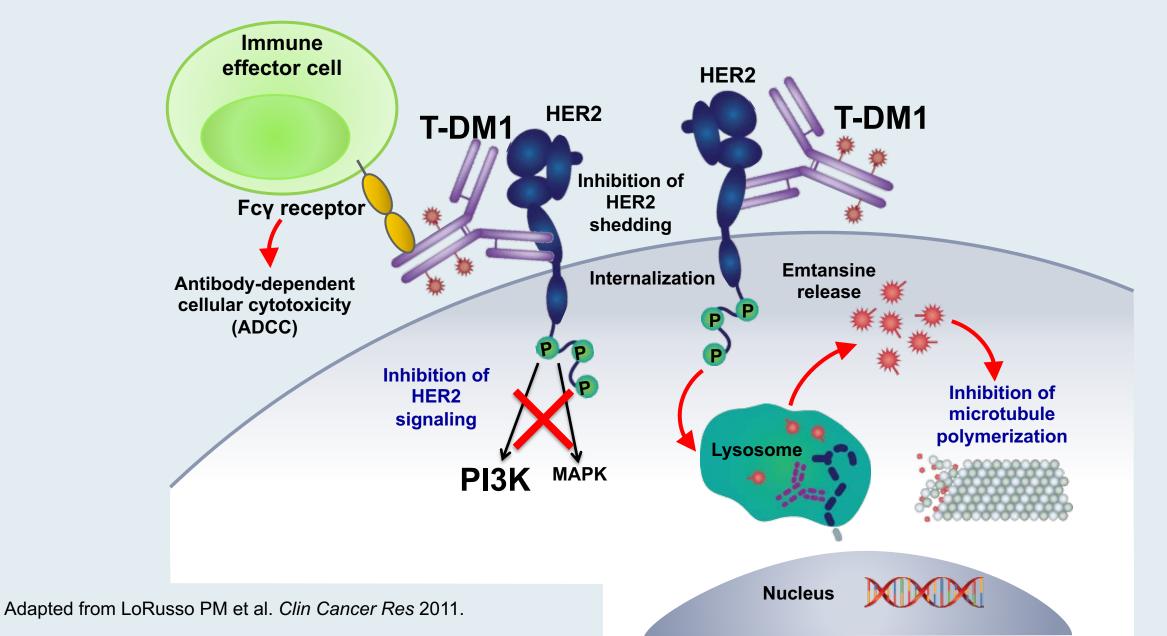


A patient with a HER2-positive IDC responds to neoadjuvant chemotherapy and trastuzumab/pertuzumab, but at surgery residual disease is detected. In general, the most common next treatment is...

- 1. Trastuzumab
- 2. Trastuzumab/pertuzumab
- 3. T-DM1
- 4. Any of the above
- 5. I don't know



Trastuzumab Emtansine (T-DM1): Mechanisms of Action



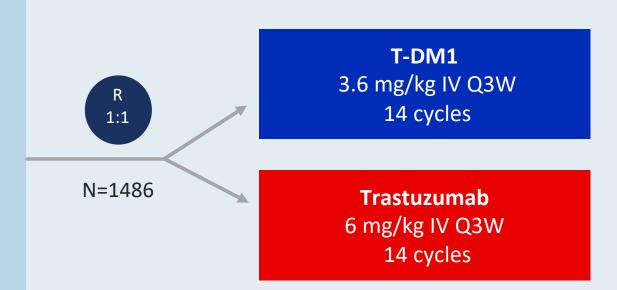


KATHERINE Study Design

- cT1-4/N0-3/M0 at presentation (cT1a-b/N0 excluded)
- Centrally confirmed HER2-positive breast cancer
- Neoadjuvant therapy must have consisted of
 - Minimum of 6 cycles of chemotherapy
 - Minimum of 9 weeks of taxane
 - Anthracyclines and alkylating agents allowed
 - All chemotherapy prior to surgery
 - Minimum of 9 weeks of trastuzumab
 - Second HER2-targeted agent allowed
- Residual invasive tumor in breast or axillary nodes
- Randomization within 12 weeks of surgery

Stratification factors:

- Clinical presentation: Inoperable (stage cT4 or cN2–3) vs operable (stages cT1-3N0-1)
- Hormone receptor: ER or PR positive vs ER negative and PR negative/unknown
- Preoperative therapy: Trastuzumab vs trastuzumab plus other HER2-targeted therapy
- Pathological nodal status after neoadjuvant therapy: Positive vs negative/not done



Radiation and endocrine therapy per protocol and local guidelines

Geyer CE et al. SABCS[®] 2018;Abstract GS1-10.



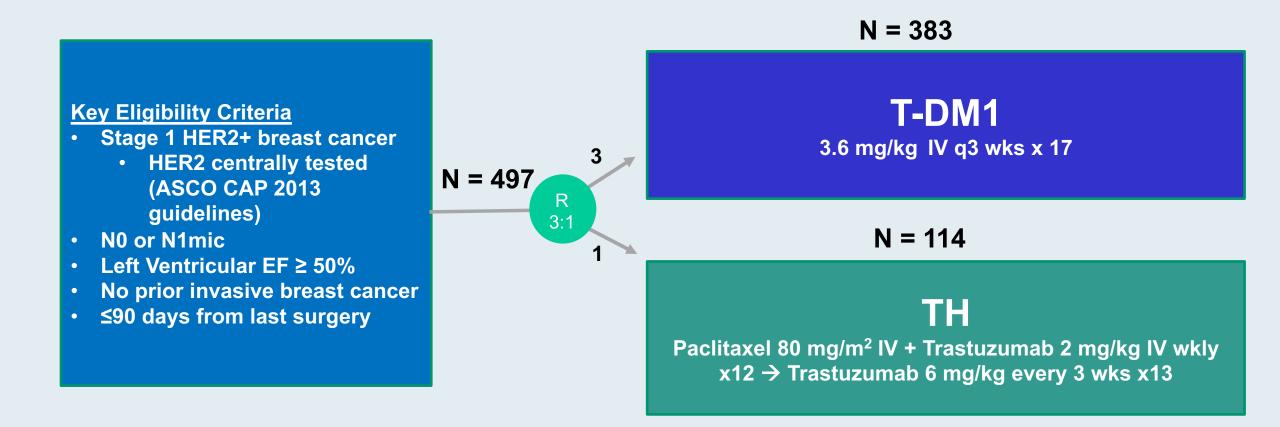
KATHERINE: Invasive Disease-Free Survival (IDFS) Outcomes

IDFS	T-DM1 (n = 743)	Trastuzumab (n = 743)	
IDFS events 3-year IDFS	12.2% 88.3%	22.2% 77.0%	
	HR = 0.50; <i>p</i> < 0.0001		
Distant recurrence			
3-year event-free rate	89.7%	83.0%	
	HR = 0.60		



Von Minckwitz G, et al. N Engl J Med 2019;380:617-28.

ATEMPT Study Schema



*Radiation and endocrine therapy could be initiated after 12 weeks on study therapy

Tolaney S et al. SABCS 2019; Abstract GS1-05.

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- Case 6 (Ms Leonard): A 64-year-old woman with ER-positive, HER2-positive metastatic breast cancer and brain metastases

Module 3: Triple-Negative

• Case 7 (Ms Hershey): A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive



Case Presentation – A 70-year-old woman with metastatic HER2-positive breast cancer



Ms Fulgencio

- Physicist initially diagnosed with metastatic disease in 2002
- Currently treated with tucatinib, capecitabine and trastuzumab
- Experiencing issues with fatigue, hair thinning, appetite changes and muscle cramps



The recently approved trastuzumab deruxtecan is classified as which type of anti-HER2 agent?

- 1. Monoclonal antibody
- 2. Antibody-drug conjugate
- 3. Small molecule tyrosine kinase inhibitor
- 4. I don't know

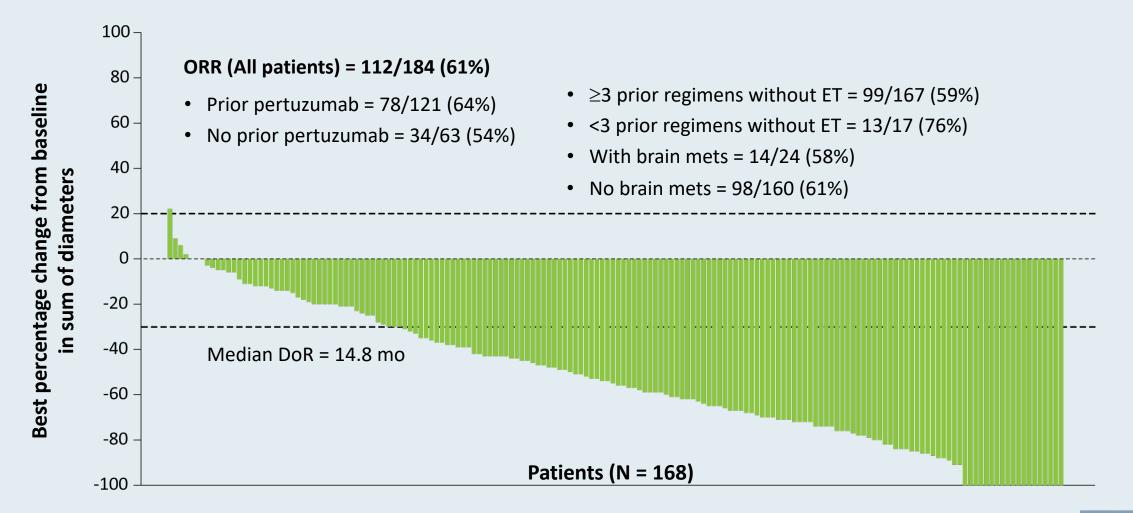


Trastuzumab deruxtecan carries a black box warning for...

- 1. QT interval prolongation
- 2. Interstitial lung disease
- 3. Cardiovascular events
- 4. I don't know



DESTINY-Breast01: Response According to Tumor Size and Subgroup Analyses





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Module 3: Triple-Negative

• Case 7 (Ms Hershey): A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive



Case Presentation – A 44-year-old woman with ER/PR-positive, HER2-positive metastatic breast cancer (Part 1)



Ms Hershey

- Former research scientist with recurrence and multiple symptomatic brain metastases in 2014
- Treated with multiple lines of therapy and has experienced many complications, including substantial vision decline (legally blind)
- Currently treated with trastuzumab deruxtecan



Case Presentation – A 44-year-old woman with ER/PR-positive, HER2-positive metastatic breast cancer (Part 2)



Ms Hershey

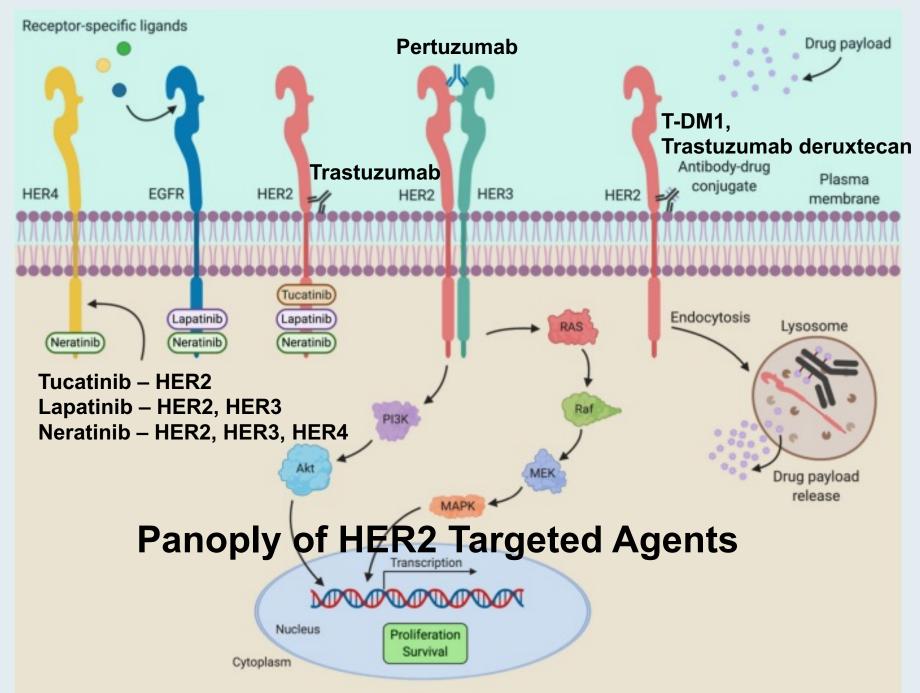
- Former research scientist with recurrence and multiple symptomatic brain metastases in 2014
- Treated with multiple lines of therapy and has experienced many complications, including substantial vision decline (legally blind)
- Currently treated with trastuzumab deruxtecan
 - Tolerating treatment well



A Phase III trial evaluating the addition of tucatinib to trastuzumab/capecitabine for metastatic HER2-positive breast cancer resulted in an improvement in overall survival for all patients, including those with brain metastases.

- 1. Agree
- 2. Disagree
- 3. I don't know

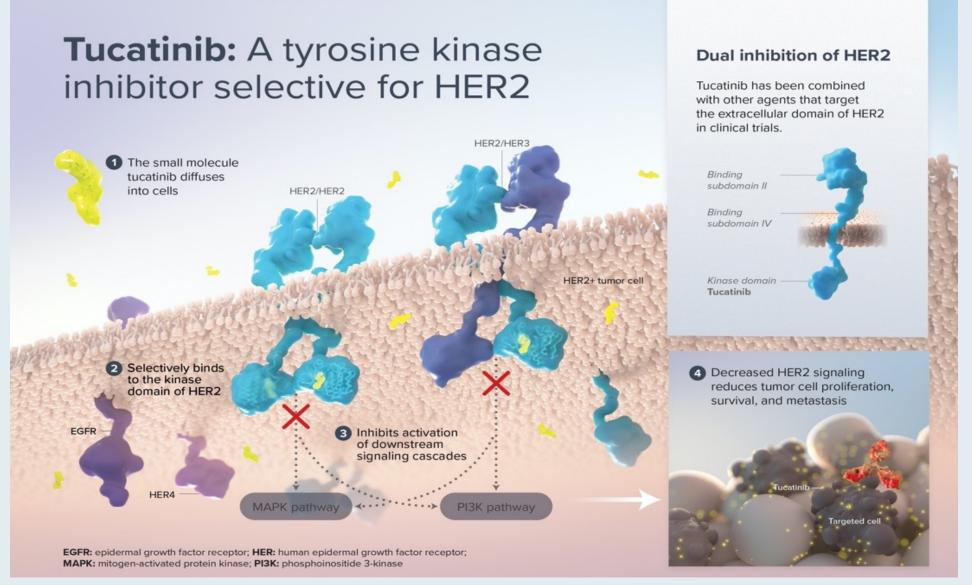


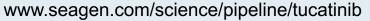


Tesch ME, Gelmon KA. Drugs 2020;80:1811-30.



Tucatinib Mechanism of Action







The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

FEBRUARY 13, 2020

VOL. 382 NO. 7

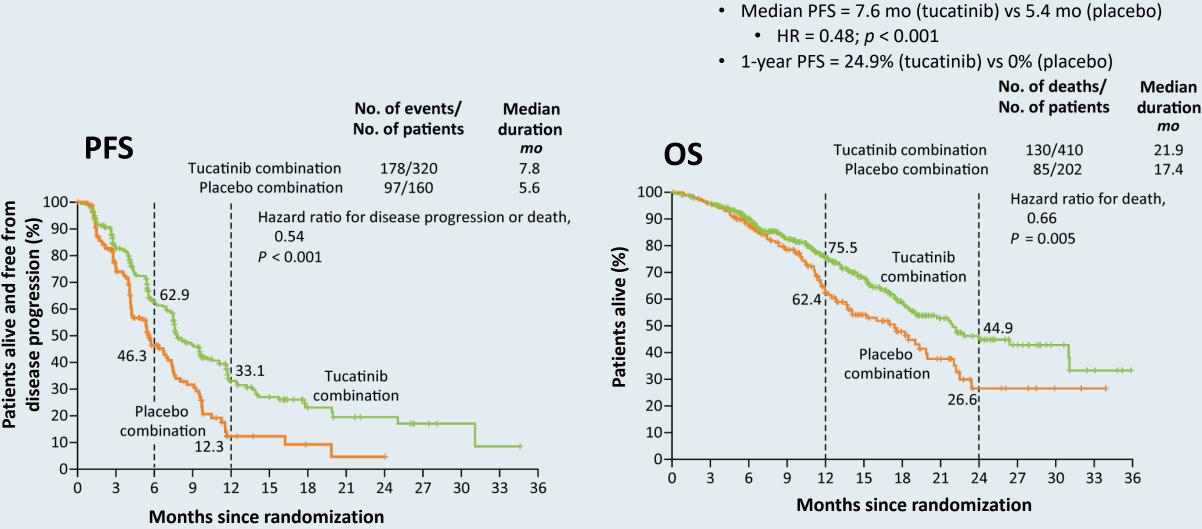
Tucatinib, Trastuzumab, and Capecitabine for HER2-Positive Metastatic Breast Cancer

R.K. Murthy, S. Loi, A. Okines, E. Paplomata, E. Hamilton, S.A. Hurvitz, N.U. Lin, V. Borges, V. Abramson, C. Anders, P.L. Bedard, M. Oliveira, E. Jakobsen, T. Bachelot, S.S. Shachar, V. Müller, S. Braga, F.P. Duhoux, R. Greil, D. Cameron, L.A. Carey, G. Curigliano, K. Gelmon, G. Hortobagyi, I. Krop, S. Loibl, M. Pegram, D. Slamon, M.C. Palanca-Wessels, L. Walker, W. Feng, and E.P. Winer



HER2CLIMB: Survival Outcomes

Among the patients with brain metastases:



Murthy R et al. San Antonio Breast Cancer Symposium 2019; Abstract GS1-01; Murthy RK et al. *N Engl J Med* 2020; 382(7):597-609.



HER2CLIMB: Safety Outcomes

	Tucatinib (n = 404)		Placebo (n = 197)		
Select AE	Any grade	Grade ≥3	Any grade	Grade ≥3	
Any	99.3%	55.2%	97.0%	48.7%	
Diarrhea	80.9%	12.9%	53.3%	8.6%	
PPE syndrome	63.4%	13.1%	52.8%	9.1%	
Nausea	58.4%	3.7%	43.7%	3.0%	
Fatigue	45.0%	4.7%	43.1%	4.1%	
Vomiting	35.9%	3.0%	25.4%	3.6%	
Stomatitis	25.5%	2.5%	14.2%	0.5%	
Increased AST	21.3%	4.5%	11.2%	0.5%	
Increased ALT	20.0%	5.4%	6.6%	0.5%	



Research

JAMA Oncology | Original Investigation

Efficacy of Margetuximab vs Trastuzumab in Patients With Pretreated ERBB2-Positive Advanced Breast Cancer A Phase 3 Randomized Clinical Trial

Hope S. Rugo, MD; Seock-Ah Im, MD, PhD; Fatima Cardoso, MD; Javier Cortés, MD, PhD; Giuseppe Curigliano, MD, PhD; Antonino Musolino, MD, PhD, MSc; Mark D. Pegram, MD; Gail S. Wright, MD; Cristina Saura, MD, PhD; Santiago Escrivá-de-Romaní, MD; Michelino De Laurentiis, MD, PhD; Christelle Levy, MD; Ursa Brown-Glaberman, MD; Jean-Marc Ferrero, MD; Maaike de Boer, MD, PhD; Sung-Bae Kim, MD, PhD; Katarína Petráková, MD, PhD; Denise A. Yardley, MD; Orit Freedman, MD, MSc; Erik H. Jakobsen, MD; Bella Kaufman, MD; Rinat Yerushalmi, MD; Peter A. Fasching, MD; Jeffrey L. Nordstrom, PhD; Ezio Bonvini, MD; Scott Koenig, MD, PhD; Sutton Edlich, MS, PA; Shengyan Hong, PhD; Edwin P. Rock, MD, PhD; William J. Gradishar, MD; for the SOPHIA Study Group

JAMA Oncol 2021;[Online ahead of print].



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Module 3: Triple-Negative

• Case 7 (Ms Hershey): A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive



Case Presentation – A 64-year-old woman with ER-positive, HER2-positive metastatic breast cancer and brain metastases (Part 1)



Ms Leonard

- Progression of metastatic disease on multiple HER2-targeted therapies, including:
 - Neratinib/capecitabine
 - Tucatinib
- Patient education on typical toxicities associated with capecitabine and tucatinib



Case Presentation – A 64-year-old woman with ER-positive, HER2-positive metastatic breast cancer and brain metastases (Part 2)



Ms Leonard

- Progression of metastatic disease on multiple HER2-targeted therapies, including:
 - Neratinib/capecitabine
 - Tucatinib
- Patient education on typical toxicities associated with capecitabine and tucatinib
- Impact of CNS involvement on patient's quality of life



Ms Leonard: Challenges and Rewards of Being an Oncology Nurse





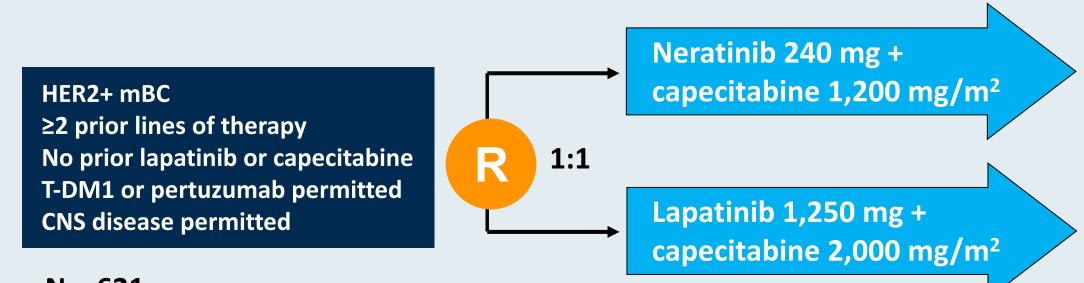
Brain Metastases Are Common in Advanced Cancers

Primary site	Incidence rate	
Lung cancer – overall	16%-20%	
SCLC NSCLC	~30% ~13%	
Breast cancer – overall	10%-15%	
HER2-positive Triple-negative	25%-50% 20%	

Barnholtz-Sloan JS et al. *J Clin Oncol* 2004;22(14):2865-72 Chamberlain MC et al. *Neuro-Oncology* 2017;19(1):i1-24



NALA: Phase III Trial Design



N = 621

Coprimary endpoints: PFS (central) and OS



Saura C et al. J Clin Oncol 2020;38(27):3138-49.

Intracranial Efficacy and Survival With Tucatinib Plus Trastuzumab and Capecitabine for Previously Treated HER2-Positive Breast Cancer With Brain Metastases in the HER2CLIMB Trial

Nancy U. Lin, MD¹; Virginia Borges, MMSc, MD²; Carey Anders, MD³; Rashmi K. Murthy, MD, MBE⁴; Elisavet Paplomata, MD⁵;

Erika Hamilton, MD⁶; Sara Hurvitz, MD⁷; Sherene Loi, MD, PhD⁸; Alicia Okines, MBChB, MD⁹; Vandana Abramson, MD¹⁰;

Philippe L. Bedard, MD¹¹; Mafalda Oliveira, MD, PhD¹²; Volkmar Mueller, MD¹³; Amelia Zelnak, MD¹⁴;

Michael P. DiGiovanna, MD, PhD¹⁵; Thomas Bachelot, MD¹⁶; A. Jo Chien, MD¹⁷; Ruth O'Regan, MD⁵;

Andrew Wardley, MBChB, MSc, MD¹⁸; Alison Conlin, MD, MPH¹⁹; David Cameron, MD, MA²⁰; Lisa Carey, MD²¹;

Giuseppe Curigliano, MD, PhD²²; Karen Gelmon, MD²³; Sibylle Loibl, MD, PhD²⁴; JoAl Mayor, PharmD²⁵;

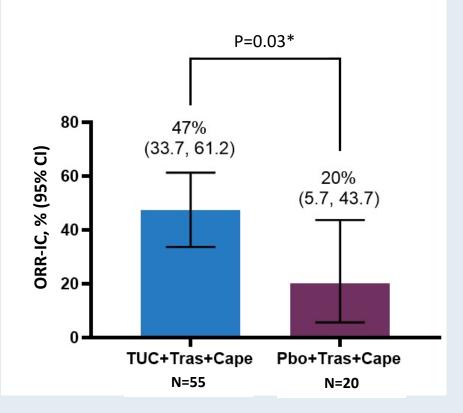
Suzanne McGoldrick, MD, MPH²⁵; Xuebei An, PhD²⁵; and Eric P. Winer, MD¹

J Clin Oncol 2020;38(23):2610-9.



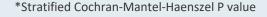
HER2CLIMB: Intracranial Response Rate (ORR-IC) in Patients with Active Brain Metastases and Measurable Intracranial Lesions at Baseline

Confirmed Objective Response Rate (RECIST 1.1)



Best Overall Intracranial Response ^a , n (%)		
Complete Response (CR)	3 (5.5)	1 (5.0)
Partial Response (PR)	23 (41.8)	3 (15.0)
Stable Disease (SD)	24 (43.6)	16 (80.0)
Progressive Disease (PD)	2 (3.6)	0
Not Available ^b	3 (5.5)	0
Subjects with Objective Response of Confirmed CR or PR, n	26	4
Duration of Intracranial Response (DOR-IC) ^e (95% CI) ^f , months	6.8 (5.5, 16.4)	3.0 (3.0, 10.3)

(a) Confirmed Best overall response assessed per RECIST 1.1. (b) Subjects with no post-baseline response assessments. (c) Twosided 95% exact confidence interval, computed using the Clopper-Pearson method (1934). (d Cochran-Mantel-Haenszel test controlling for stratification factors (ECOG performance status: 0/1, and Region of world: North America/Rest of World) at randomization. (e) As estimated using Kaplan-Meier methods. (f) Calculated using the complementary log-log transformation method (Collett, 1994).





Courtesy of Carey K Anders, MD

Agenda

Cases from the Practices of Ms Fulgencio, Ms Hershey and Ms Leonard

Module 1: ER-Positive

- Case 1 (Ms Fulgencio): A 31-year-old woman with localized ER/PR-positive, HER2-negative breast cancer and 3 positive nodes
- Case 2 (Ms Leonard): A 53-year-old woman with ER-positive, HER2-negative metastatic breast cancer and a PIK3CA tumor mutation

Module 2: HER2-Positive

- Case 3 (Ms Leonard): A 33-year-old woman with localized ER/PR-positive, HER2-positive breast cancer and residual disease after neoadjuvant treatment
- Case 4 (Ms Fulgencio): A 70-year-old woman with metastatic HER2-positive breast cancer
- Case 5 (Ms Hershey): A 44-year-old woman with ER/PR-positive, HER2-positive metastatic breast cancer
- Case 6 (Ms Leonard): A 64-year-old woman with ER-positive, HER2-positive metastatic breast cancer and brain metastases

Module 3: Triple-Negative

• Case 7 (Ms Hershey): A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive



Case Presentation – A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive (Part 1)



Ms Hershey

- Former school teacher with progression after first-line atezolizumab/ nab paclitaxel
- Currently treated with sacituzumab govitecan
- Coping with anxieties and uncertainties of having metastatic disease



October 2020 – Widespread Erythemia





January 2021 – Disease Progression





Case Presentation – A 52-year-old woman with metastatic BRCA wild-type TNBC, PD-L1-positive (Part 2)



Ms Hershey

- Former school teacher with progression after first-line atezolizumab/ nab paclitaxel
- Currently treated with sacituzumab govitecan
- Coping with anxieties and uncertainties of having metastatic disease
 - Initially hesitant to take prescription pain medicine

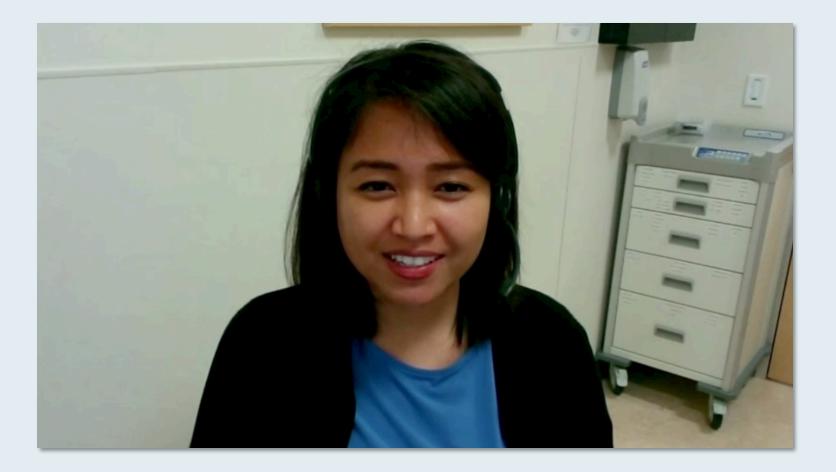


Ms Hershey: Reflections on Being an Oncology Nurse





Ms Fulgencio: Personal Experiences with Caregiving for a Loved One with Breast Cancer





The anti-PD-L1 antibody atezolizumab is currently FDA approved in combination with *nab* paclitaxel as first-line treatment for...

- 1. All patients with metastatic breast cancer
- 2. Metastatic triple-negative breast cancer
- 3. Metastatic PD-L1-positive triple-negative breast cancer
- 4. I don't know



A germline mutation is found in every cell in the body and a somatic mutation is found in the tumor.

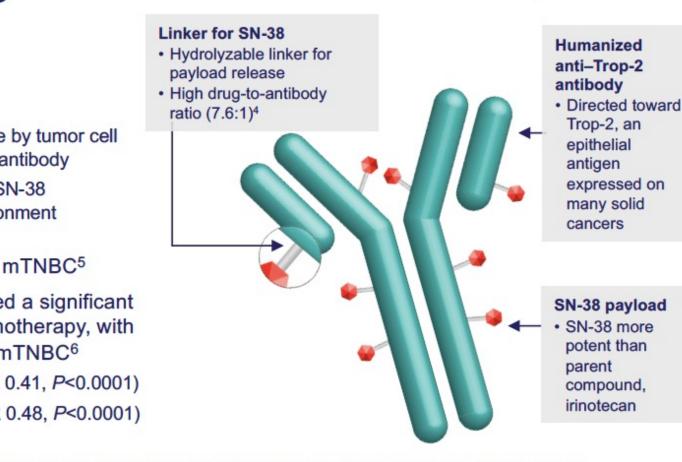
- 1. Agree
- 2. Disagree
- 3. I don't know



The PARP inhibitors olaparib and talazoparib are FDA approved for patients with metastatic breast cancer and a germline BRCA mutation...

- 1. As maintenance therapy after platinum chemotherapy
- 2. As monotherapy
- 3. Both a and b
- 4. I don't know





Sacituzumab Govitecan (SG) Is a First-in-Class Trop-2–Directed ADC

- SG is distinct from other ADCs¹⁻⁴
 - Antibody highly specific for Trop-2
 - High drug-to-antibody ratio (7.6:1)
 - Internalization and enzymatic cleavage by tumor cell not required for SN-38 liberation from antibody
 - Hydrolysis of the linker also releases SN-38 extracellularly in the tumor microenvironment (bystander effect)
- Granted FDA accelerated approval for mTNBC⁵
- Landmark ASCENT study demonstrated a significant survival improvement of SG over chemotherapy, with a tolerable safety profile in pretreated mTNBC⁶
 - Median PFS of 5.6 vs 1.7 months (HR 0.41, P<0.0001)
 - Median OS of 12.1 vs 6.7 months (HR 0.48, P<0.0001)

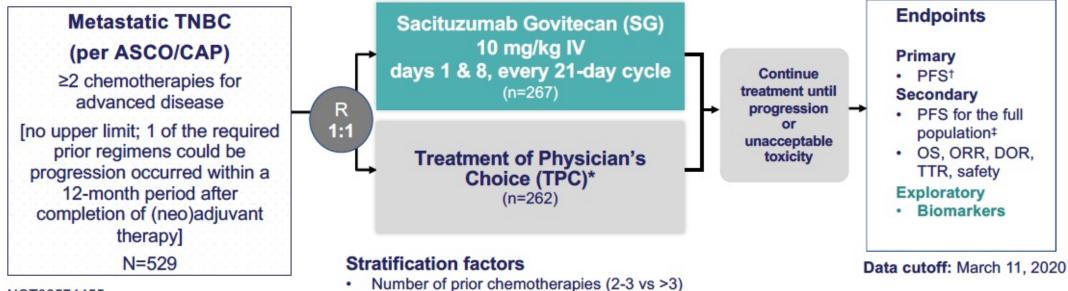
ADC, antibody-drug conjugate; FDA, US Food and Drug Administration; OS, overall survival; PFS, progression-free survival; TNBC, triple-negative breast cancer; Trop-2, trophoblast cell surface antigen 2. 1. Goldenberg DM, et al. *Expert Opin Biol Ther.* 2020;20:871-885. 2. Nagayama A, et al. *Ther Adv Med Oncol.* 2020;12:1758835920915980. 3. Cardillo TM, et al. *Bioconjugate Chem.* 2015;26:919-931. 4. Goldenberg DM, et al. *Oncotarget.* 2015;6:22496-224512. 5. Press Release. https://www.fda.gov/drugs/drug-approvals-and-databases/fda-grants-accelerated-approval-sacituzumab-govitecan-hziy-metastatic-triple-negative-breast-cancer. Accessed August 26, 2020. 6. Bardia A, et al. ESMO 2020. Abstract LBA17.

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Hurvitz SA et al. SABCS 2020; Abstract GS3-06.

San Antonio Breast Cancer Symposium®, December 8-12, 2020

ASCENT: A Phase 3 Confirmatory Study of Sacituzumab Govitecan in Refractory/Relapsed mTNBC



NCT02574455

- Geographic region (North America vs Europe)
- Presence/absence of known brain metastases (yes/no)

We report the exploratory biomarker analysis in the brain metastases-negative (Brain Mets-Negative) population

*TPC: eribulin, vinorelbine, gemcitabine, or capecitabine. *PFS measured by an independent, centralized, and blinded group of radiology experts who assessed tumor response using RECIST 1.1 criteria in patients without brain metastasis, [‡]The full population includes all randomized patients (with and without brain metastases). Baseline brain MRI only required for patients with known brain metastasis. ASCO/CAP, American Society of Clinical Oncology/College of American Pathologists; DOR, duration of response; DSMC, Data Safety Monitoring Committee; IV, intravenous; mTNBC, metastatic triple-negative breast cancer; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; R, randomization; RECIST, Response Evaluation Criteria in Solid Tumors; TTR, time to response. National Institutes of Health. https://clinicaltrials.gov/ct2/show/NCT02574455.

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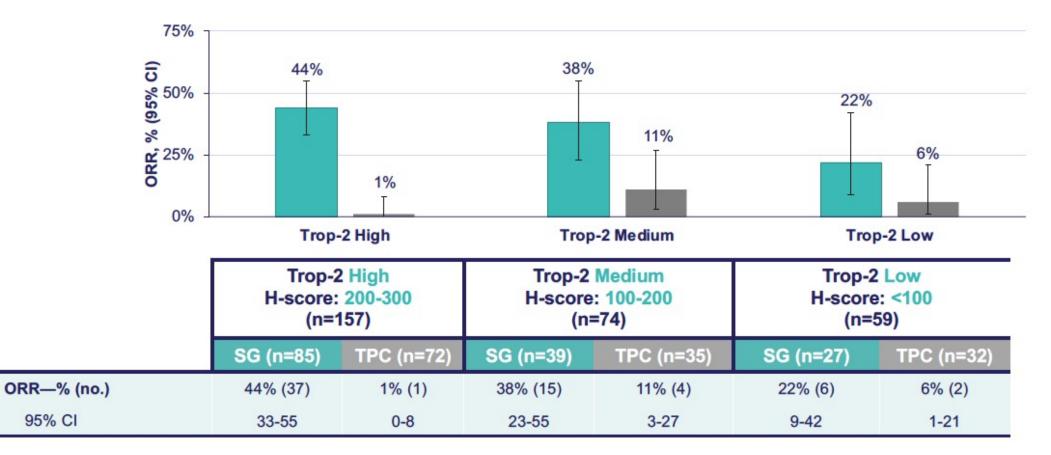
ASCENT



Hurvitz SA et al. SABCS 2020: Abstract GS3-06.

ORR by Trop-2 Expression





Assessed in the brain metastases-negative population. ORR and PFS are assessed by BICR. Trop-2 expression determined in archival samples by validated immunohistochemistry assay and H-scoring. BICR, blind independent central review; H-score, histochemical-score; ORR, objective response rate; SG, sacituzumab govitecan; TPC, treatment of physician's choice; Trop-2, trophoblast cell surface antigen-2.

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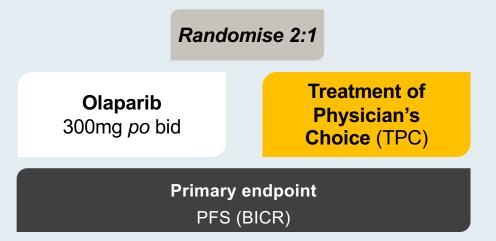
9

Hurvitz SA et al. SABCS 2020; Abstract GS3-06.

Phase III Trials of PARP Inhibitors in gBRCA HER2-Negative Metastatic Breast Cancer

OlympiAD¹

gBRCAm HER2- mBC ≤2 prior chemotherapy lines for mBC Previous treatment with anthracycline and taxane in either the (neo)adjuvant or metastatic setting



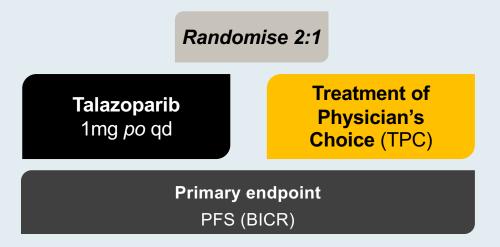
1. Robson et al. *N Engl J Med* 2017; 377:523-33; 2. Litton J et al. *N Engl J Med* 2018; 379:753-63.

EMBRACA²

gBRCAm HER2- LABC or ABC

≤3 prior lines of chemotherapy

Previous treatment with a taxane, an anthracycline, or both, unless this treatment was contraindicated





Phase III Trials of PARP Inhibitors in gBRCA HER2-Negative **Metastatic Breast Cancer**

OlympiAD: Olaparib PFS^{1,2} 100 100 -**Overall** Olaparib **TPC Talazoparib** PCT 163 (79.5) Progression-free survival (%) 71 (73.2) Events, n (%) Progression-free survival (%) 80 80 186 (65) Events, n (%) 83 (58) 7.0 mo 4.2 mo Median PFS 8.6 mo 5.6 mo Median PFS HR: 0.58 60 60 HR: 0.54, P<0.001 P<0.001 Olaparib 300 mg bid (N=205) 40 40 **TPC (N=97)** Talazoparib (N=287) Overall PCT (N=144) 20 20 0 30 33 36 12 15 18 21 24 27 39 22 24 26 28 9 42 16 18 20 0 2 10 12 6 8 14 No. at risk (event/cumulative events) Time (months) Time from randomisation (months) 55 42 29 23 TALA (50/50) (53/103)(34/137)(17/154) (9/163) (9/172) (2/174) (5/179) (4/183) (2/185) (0/185) (1/86) (0/185) (1/86)Number at risk PCT Olaparib 20520117715915412910710094 73 69 61 40 36 23 21 (7/76)(0/76) (3/79) (2/81) (0/81) (1/82) (1/83) (0/83) (0/83) (0/83) (0/83)TPC 97 88 83 46 44 29 25 24 21 13 11 11 8 7 4 4 4

EMBRACA: Talazoparib PFS³

1. Robson M, et al. N Engl J Med 2017;377:523-33; 2. Olaparib 150mg Film-Coated Tablets, SmPC. 2019;

3. Litton JK, et al. N Engl J Med 2018;379:753-63 (supplementary appendix)

Phase III Olympia Trial of Adjuvant Olaparib for High-Risk HER2-Negative Localized Breast Cancer with a BRCA Mutation Crossed the Superiority Boundary for Invasive Disease-Free Survival Press Release – February 17, 2021

"The OlympiA Phase III trial of [olaparib] will move to early primary analysis and reporting following a recommendation from the Independent Data Monitoring Committee (IDMC).

Based on the planned interim analysis, the IDMC concluded that the trial crossed the superiority boundary for its primary endpoint of invasive disease-free survival (iDFS) and demonstrated a sustainable, clinically relevant treatment effect for olaparib versus placebo for patients with germline BRCA-mutated (gBRCAm) high-risk human epidermal growth factor receptor 2 (HER2)-negative early breast cancer, and recommend primary analysis now take place.

In its communication, the IDMC did not raise any new safety concerns. The trial will continue to assess the key secondary endpoints of overall survival and distant disease-free survival."



13th Annual Oncology Grand Rounds A Complimentary NCPD Live Webinar Series Held During the 46th Annual ONS Congress **Non-Small Cell Lung Cancer Tuesday, April 20, 2021** 5:00 PM - 6:30 PM ET **Oncology Nurse Practitioners Medical Oncologists** Kelly EH Goodwin, MSN, RN, ANP-BC John V Heymach, MD, PhD Tara Plues, APRN, MSN Paul K Paik, MD Victoria Sherry, DNP, CRNP, AOCNP Zofia Piotrowska, MD, MHS

> Moderator Neil Love, MD



Thank you for joining us!

NCPD credit information will be emailed to each participant within 3 business days.

