## Preventing and Managing Toxicities Associated with Antibody-Drug Conjugates in the Management of Metastatic Breast Cancer

A CME/MOC-Accredited Live Webinar

Wednesday, November 19, 2025 5:00 PM – 6:00 PM ET

**Faculty** 

Lisa A Carey, MD, ScM, FASCO Rita Nanda, MD



#### **Faculty**



Lisa A Carey, MD, ScM, FASCO
L Richardson and Marilyn Jacobs Preyer Distinguished Professor for Breast Cancer Research
University of North Carolina at Chapel Hill
Deputy Director for Clinical Sciences
Lineberger Comprehensive Cancer Center
Chief Clinical Research Officer
Clinical Research Partners
UNC Health



MODERATOR
Neil Love, MD
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Rita Nanda, MD
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Chicago, Illinois

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#### **Commercial Support**

This activity is supported by an educational grant from Gilead Sciences Inc.



#### 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: Aadi Bioscience, AbbVie Inc, ADC Therapeutics, Agendia Inc, Alexion Pharmaceuticals, Amgen Inc, Array BioPharma Inc, a subsidiary of Pfizer Inc, Arvinas, Astellas, AstraZeneca Pharmaceuticals LP, Aveo Pharmaceuticals, Bayer HealthCare Pharmaceuticals, BeOne, Black Diamond Therapeutics Inc, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol Myers Squibb, Celcuity, Clovis Oncology, Coherus BioSciences, Corcept Therapeutics Inc, CTI BioPharma, a Sobi Company, Daiichi Sankyo Inc, Eisai Inc, Elevation Oncology Inc, Exact Sciences Corporation, Exelixis Inc, Genentech, a member of the Roche Group, Genmab US Inc, Geron Corporation, Gilead Sciences Inc, GSK, Helsinn Therapeutics (US) Inc, Hologic Inc, ImmunoGen Inc, Incyte Corporation, Ipsen Biopharmaceuticals Inc, Jazz Pharmaceuticals Inc, Johnson & Johnson, Karyopharm Therapeutics, Kite, A Gilead Company, Kura Oncology, Legend Biotech, Lilly, MEI Pharma Inc, Merck, Mersana Therapeutics Inc, Mirati Therapeutics Inc, Mural Oncology Inc, Natera Inc, Novartis, Novartis Pharmaceuticals Corporation on behalf of Advanced Accelerator Applications, Novocure Inc, Nuvalent, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, Rigel Pharmaceuticals Inc, R-Pharm US, Sanofi, Seagen Inc, Servier Pharmaceuticals LLC, SpringWorks Therapeutics Inc, Stemline Therapeutics Inc, Sumitomo Pharma America, Syndax Pharmaceuticals, Taiho Oncology Inc, Takeda Pharmaceuticals USA Inc, TerSera Therapeutics LLC, and Tesaro, A GSK Company.



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#### **Dr Carey — Disclosures**

No relevant conflicts of interest to disclose



#### **Dr Nanda** — **Disclosures**

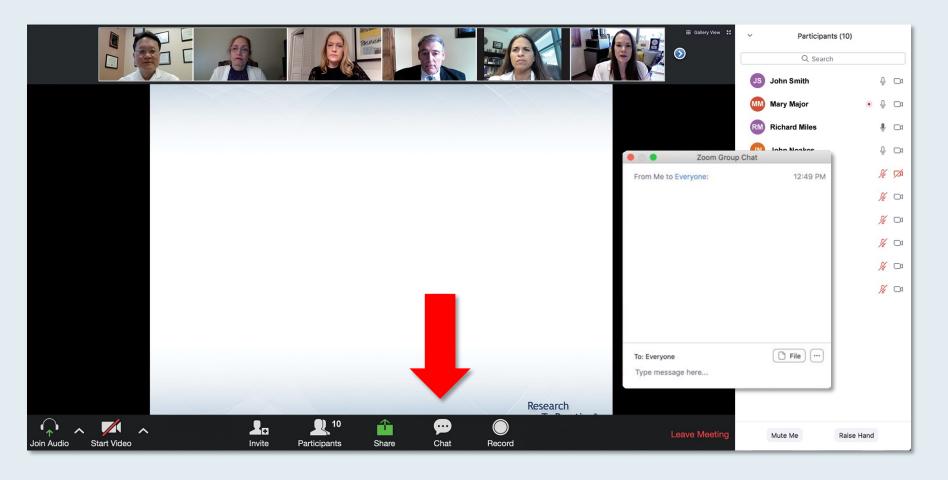
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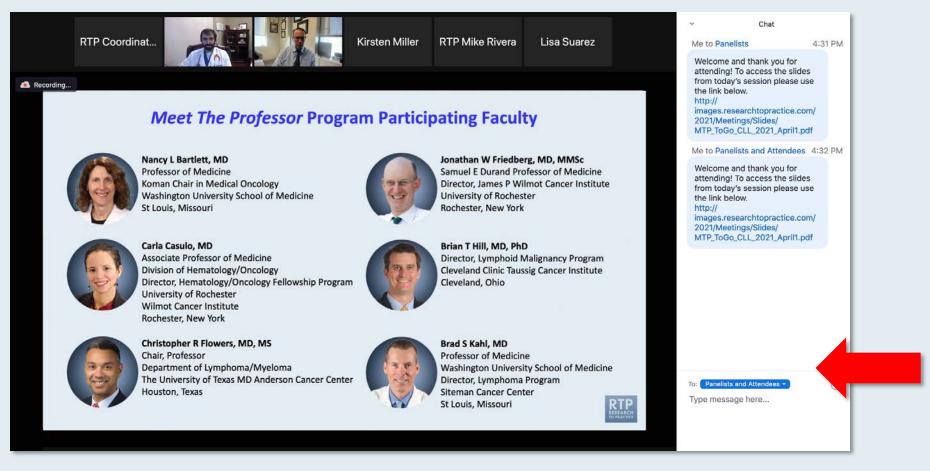


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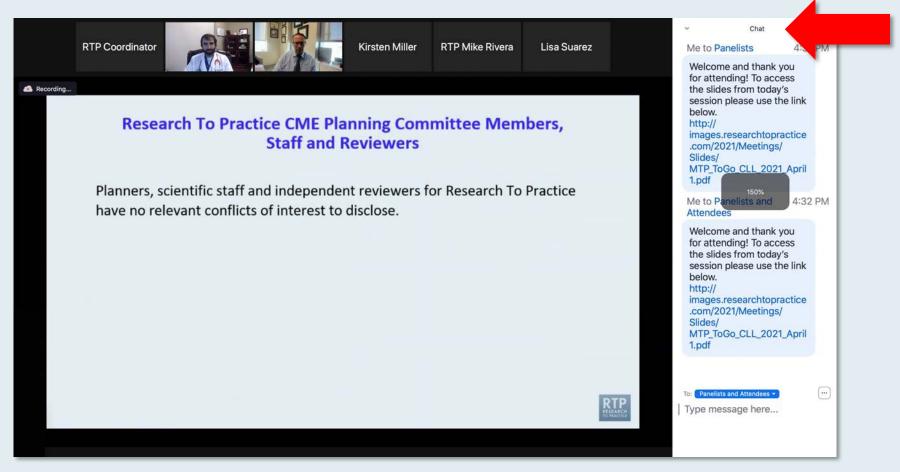


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# ER-Positive Metastatic Breast Cancer — A Roundtable Discussion on the Current and Future Role of Oral SERDs



PROF FRANCOIS-CLEMENT BIDARD



DR REBECCA SHATSKY
UNIVERSITY OF CALIFORNIA
SAN DIEGO MOORES CANCER CENTER



DR HOPE S RUGO
CITY OF HOPE COMPREHENSIVE
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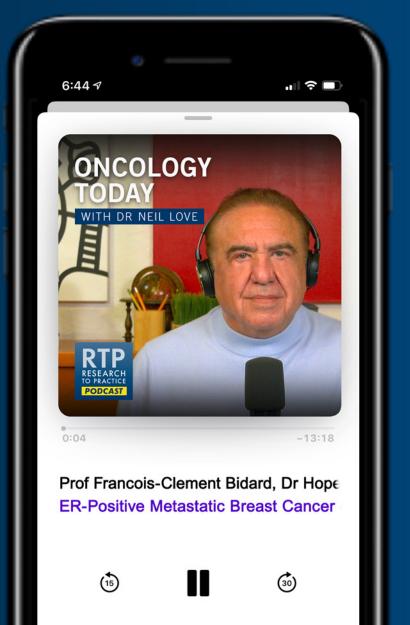


DR SETH WANDER
MASSACHUSETTS GENERAL HOSPITAL









### Cancer Conference Update: ESMO Congress 2025 — Urothelial Bladder Cancer and Prostate Cancer

A CME/MOC-Accredited Live Webinar

Thursday, November 20, 2025 5:00 PM - 6:00 PM ET

**Faculty** 

Terence Friedlander, MD Rana R McKay, MD



#### **Exciting CME Events You Do Not Want to Miss**

A Friday Satellite Symposium Series Preceding the 67th ASH Annual Meeting

#### Friday, December 5, 2025

Acute Myeloid Leukemia 7:30 AM – 9:30 AM ET Myelofibrosis and Systemic Mastocytosis 3:15 PM – 5:15 PM ET

Chronic Lymphocytic Leukemia 11:30 AM – 1:30 PM ET Follicular Lymphoma and Diffuse Large B-Cell Lymphoma 7:00 PM – 9:00 PM ET



## Cases from the Community: Investigators Discuss the Optimal Management of Breast Cancer

A 3-Part CME Satellite Symposium Series

Antibody-Drug Conjugates for Metastatic Breast Cancer Tuesday, December 9, 2025 7:00 PM – 8:30 PM CT

HER2-Positive Breast Cancer Wednesday, December 10, 2025 7:00 PM – 9:00 PM CT

Endocrine-Based Therapy Thursday, December 11, 2025 7:00 PM – 9:00 PM CT



#### Hematologic Cancers: A 3-Part ASH 2025 Review

A CME/MOC-Accredited Webinar Series

Relapsed/Refractory Multiple Myeloma Monday, December 15, 2025 5:00 PM – 6:00 PM ET

Immune Thrombocytopenia
Tuesday, December 16, 2025
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Bispecific Antibodies in Lymphoma Wednesday, December 17, 2025 5:00 PM – 6:00 PM ET



#### **Grand Rounds**

CME/MOC-Accredited Interactive Series

#### November 2025 to April 2026

#### **Three Series**

Optimizing Treatment for Patients with Relapsed/Refractory Chronic Lymphocytic Leukemia

Optimizing the Use of Novel Therapies for Patients with Diffuse Large B-Cell Lymphoma Optimizing Therapy for Patients with Hormone Receptor-Positive Localized Breast Cancer

Host a 1-hour session at your institution: Email Meetings@ResearchToPractice.com or call (800) 233-6153



#### **Save The Date**

## Fifth Annual National General Medical Oncology Summit

A Multitumor CME/MOC-, NCPD- and ACPE-Accredited Educational Conference Developed in Partnership with Florida Cancer Specialists & Research Institute

Friday to Sunday, April 24 to 26, 2026

The Ritz-Carlton Orlando, Grande Lakes | Orlando, Florida

**Moderated by Neil Love, MD** 

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Miami, Florida

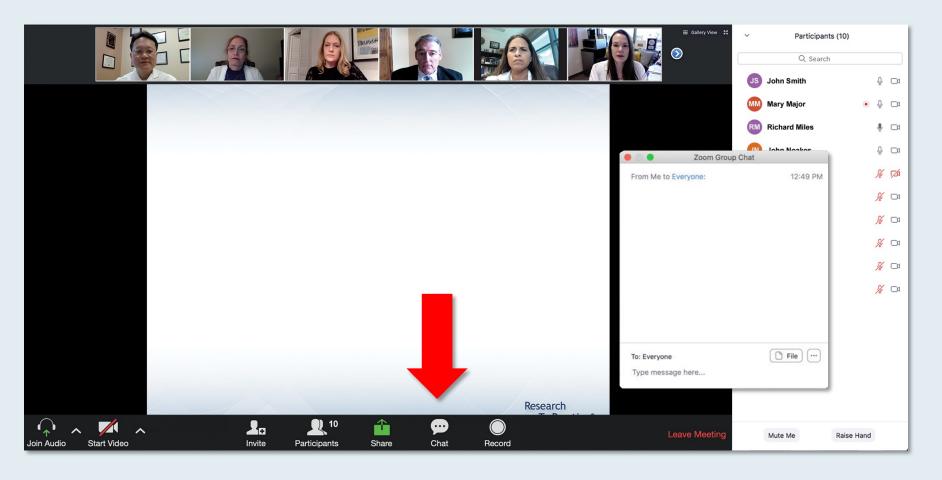


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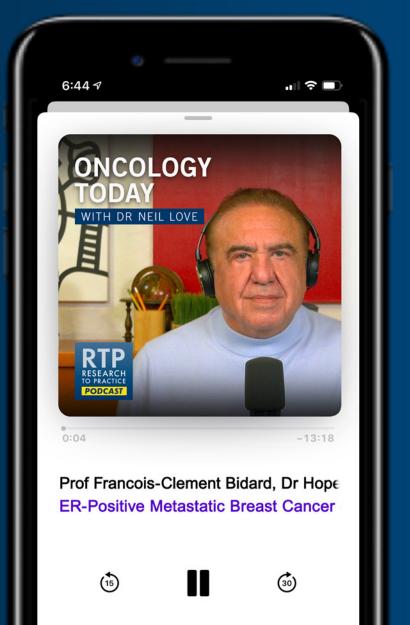


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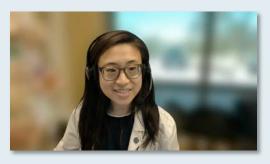
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Charlotte, North Carolina



Richard Zelkowitz, MD
Hartford HealthCare Cancer Institute
Bridgeport, Connecticut



Ranju Gupta, MD Lehigh Valley Topper Cancer Institute Bethlehem, Pennsylvania



# **Agenda**

Introduction	Overview: Molecular basis of antibody-drug conjugate (ADC) toxicities — Sequencing of ADCs and mechanisms of resistance		
Case 1	Dr Zelkowitz – 68-year-old woman		
■ Data Revie	w: TROP2-targeted ADCs (sacituzumab govitecan, Dato-DXd, sac TMT)		
Case 2	Dr Gupta – 74-year-old woman		
Case 3	Dr Agrawal – 83-year-old woman		
Case 4	Dr Favaro – 70-year-old woman		
■ Data Revie	w: Trastuzumab deruxtecan		
Case 5	Dr Rupard – 78-year-old woman		
Case 6	Dr Ku – 72-year-old woman		
■ Data Review: Other HER2-targeted agents			



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# **ASCO/ESMO 2025 ADC Clinical Trial Bonanza**

- Cortes JC et al. Primary results from ASCENT-03: A randomized phase III study of sacituzumab govitecan
  (SG) vs chemotherapy (chemo) in patients (pts) with previously untreated advanced triple-negative
  breast cancer (TNBC) who are unable to receive PD-(L)1 inhibitors (PD-[L]1i). ESMO 2025; Abstract LBA20.
- Tolaney SM et al. Sacituzumab govitecan (SG) + pembrolizumab (pembro) vs chemotherapy (chemo) + pembro in previously untreated PD-L1—positive advanced triple-negative breast cancer (TNBC): Primary results from the randomized phase 3 ASCENT-04/KEYNOTE-D19 study. ASCO 2025; Abstract LBA109.
- Dent R et al. First-line (1L) datopotamab deruxtecan (Dato-DXd) vs chemotherapy in patients with locally recurrent inoperable or metastatic triple-negative breast cancer (mTNBC) for whom immunotherapy was not an option: Primary results from the randomised, phase III TROPION-Breast02 trial. ESMO 2025; Abstract LBA21.
- Li M et al. Sacituzumab tirumotecan (sac-TMT) vs investigator's choice of chemotherapy (ICC) in previously treated locally advanced or metastatic hormone receptor-positive, HER2-negative (HR+/HER2-) breast cancer (BC): Results from the randomized, multi-center phase III OptiTROP-Breast02 study. ESMO 2025; Abstract LBA23.

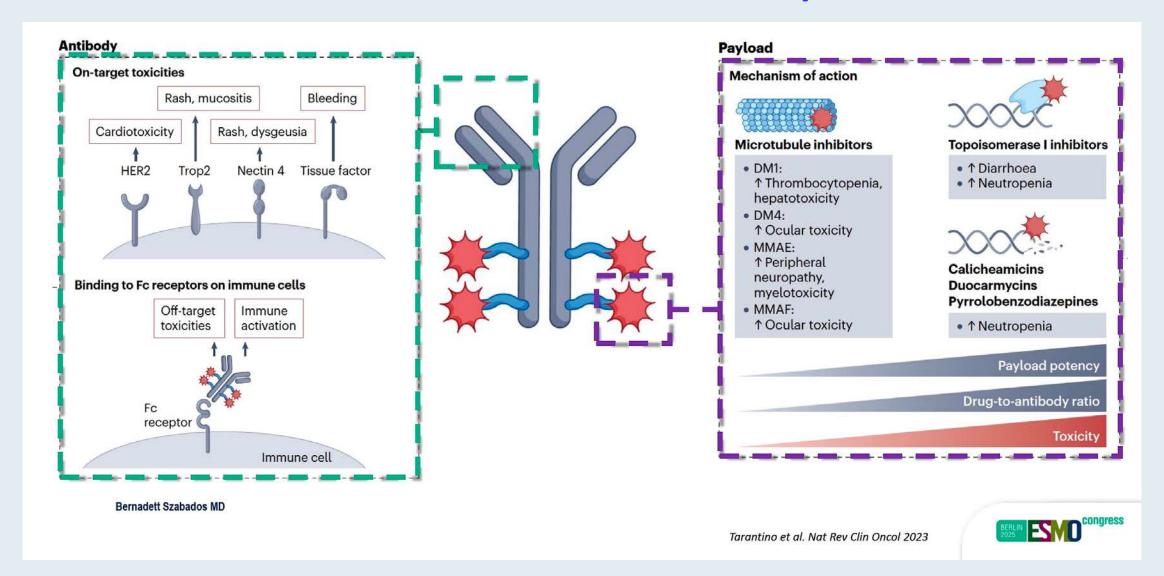


# **ASCO/ESMO 2025 ADC Clinical Trial Bonanza (Continued)**

- Tolaney SM et al. Trastuzumab deruxtecan (T-DXd) + pertuzumab (P) vs taxane + trastuzumab +
  pertuzumab (THP) for first-line (1L) treatment of patients (pts) with human epidermal growth factor
  receptor 2-positive (HER2+) advanced/metastatic breast cancer (a/mBC): Interim results from DESTINYBreast09. ASCO 2025; Abstract LBA1008.
- Geyer C et al. Trastuzumab deruxtecan (T-DXd) vs trastuzumab emtansine (T-DM1) in patients (pts) with high-risk human epidermal growth factor receptor 2—positive (HER2+) primary breast cancer (BC) with residual invasive disease after neoadjuvant therapy (tx): Interim analysis of DESTINY-Breast05. ESMO 2025;Abstract LBA1.
- Harbeck N et al. DESTINY-Breast11: Neoadjuvant trastuzumab deruxtecan alone (T-DXd) or followed by paclitaxel + trastuzumab + pertuzumab (T-DXd-THP) vs SOC for high-risk HER2+ early breast cancer (eBC). ESMO 2025; Abstract 2910O.

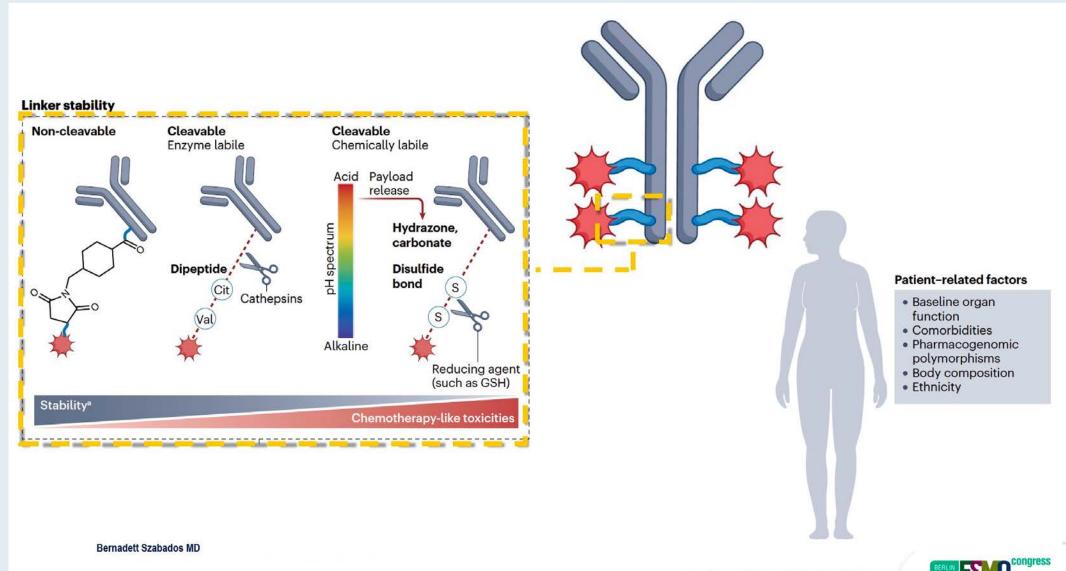


# **Mechanisms of ADC Toxicity**





# **Mechanisms of ADC Toxicity (Continued)**



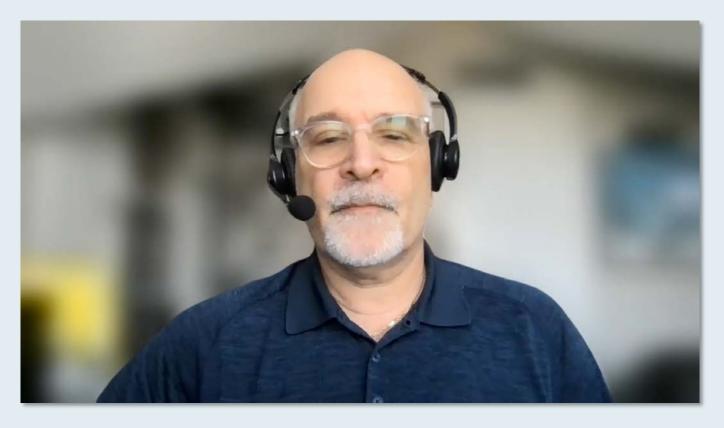


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# Case Presentation: 68-year-old woman with localized TNBC develops myocarditis during neoadjuvant chemotherapy/pembrolizumab



**Dr Richard Zelkowitz (Bridgeport, Connecticut)** 



#### **Abstract LBA20**



Primary Results From ASCENT-03: A Randomized Phase 3
Study of Sacituzumab Govitecan vs Chemotherapy in Patients
With Previously Untreated Metastatic Triple-Negative Breast
Cancer Who Are Unable to Receive PD-(L)1 Inhibitors

Javier Cortés<sup>1-5</sup>, Aditya Bardia<sup>6</sup>, Kevin Punie<sup>7</sup>, Carlos Barrios<sup>8</sup>, Sara Hurvitz<sup>9</sup>, Andreas Schneeweiss<sup>10</sup>, Joohyuk Sohn<sup>11</sup>, Eriko Tokunaga<sup>12</sup>, Adam Brufsky<sup>13</sup>, Yeon Hee Park<sup>14</sup>, Binghe Xu<sup>15</sup>, Roberto Hegg<sup>16</sup>, Mafalda Oliveira<sup>17</sup>, Alessandra Fabi<sup>18</sup>, Natalya Vaksman<sup>19</sup>, Theresa Valdez<sup>19</sup>, Xinrui Zhang<sup>19</sup>, Catherine Lai<sup>19</sup>, Sara M Tolaney<sup>20</sup>

'International Breast Cancer Center (IBCC), Pangaea Oncology, Quiron Group, Barcelona, Spain; 21OB Madrid, Institute of Oncology, Hospital Beata María Ana, Madrid, Spain; 30ncology Department, Hospital Universitario Torrejón, Ribera Group, Madrid, Spain; 4Universidad Europea de Madrid, Faculty of Biomedical and Health Sciences, Department of Medicine, Madrid, Spain; 5Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain and Ridgewood, NJ, USA; 5David Geffen School of Medicine, University of California, Los Angeles, Jonsson Comprehensive Cancer Center, Los Angeles, CA, USA; 7Ziekenhuis Aan de Stroom, Antwerp, Belgium; 5Latin American Cooperative Oncology Group (LACOG), Porto Alegre, Brazil; 5Department of Medicine, UW Medicine, Clinical Research Division, Fred Hutchinson Cancer Center, Seattle, WA USA; 50Heidelberg University Hospital and German Cancer Research Center, Heidelberg, Germany; 11Yonsei Cancer Center, Seoul, Republic of Korea; 12National Hospital Organization Kyushu Cancer Center, Fukuoka, Japan; 13Magee-Womens Hospital and the Hillman Cancer Center, University of Pittsburgh Medical Center, Pittsburgh, PA, USA; 14Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; 15Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; 16University of São Paulo, São Paulo, Brazil; 17Vall d'Hebron University Hospital, Breast Cancer Group, Vall d'Hebron Institute of Oncology (VHIO), Vall d'Hebron Barcelona Hospital Campus, Barcelona, Spain; 18Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Università Cattolica del Sacro Cuore, Rome, Italy; 19Gilead Sciences Inc., Foster City, CA, USA; 20Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA

Sunday, October 19, 2025; 9:15-9:25 am LBA 20

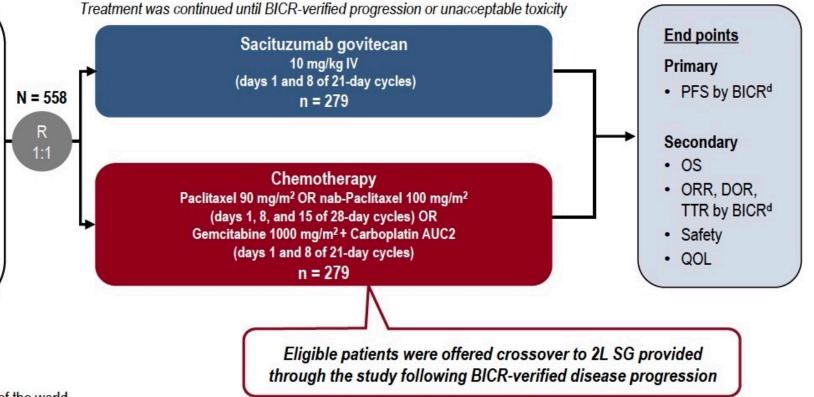




# Phase III ASCENT-03 Study Design

Patients with previously untreated, locally advanced inoperable or metastatic TNBCa:

- Not candidates for PD-(L)1 inhibitors:
- PD-L1 negative<sup>b</sup> tumors (CPS < 10)</li>
- PD-L1 positive<sup>b</sup> tumors (CPS ≥ 10) and previously treated with a PD-(L)1 inhibitor in curative setting
- Ineligible for a PD-(L)1 inhibitor due to a comorbidity
- ≥ 6 months since treatment in curative setting
- Previously treated, stable CNS metastases were allowed



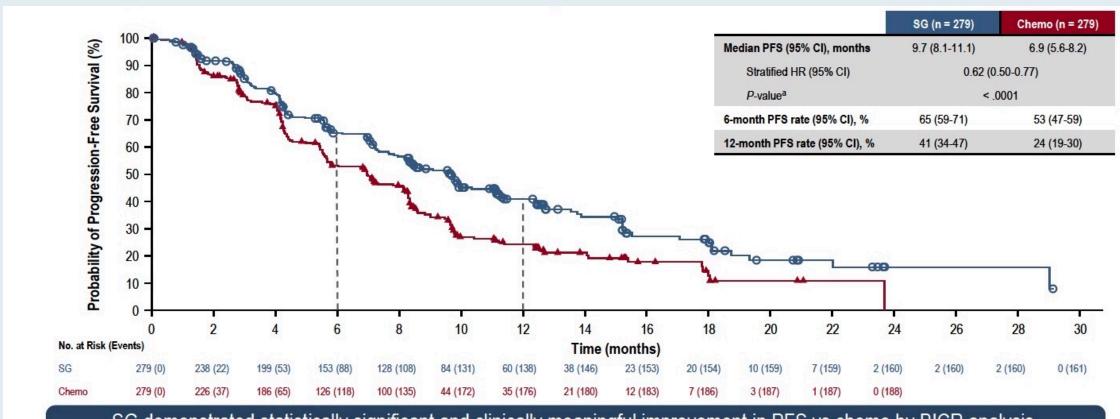
#### Stratification factors:

- United States/Canada/Western Europe vs rest of the world
- De novo mTNBC<sup>c</sup> vs recurrent within 6 to 12 months of treatment vs recurrent after > 12 months from treatment in curative setting

ClinicalTrials.gov identifier. NCT05382299. aTNBC status was centrally confirmed and defined using the PD-L1 IHC 22C3 assay (Dako, Agilent Technologies). aUp to 35% de novo mTNBC. Per Response Evaluation Criteria in Solid Tumors version 1.1. 2L, second line; AUC, area under the curve; BICR, blinded independent central review; CNS, central nervous system; CPS, combined positive score; DOR, duration of response; IV, intravenous; mTNBC, metastatic triple-negative breast cancer; ORR, objective response rate; OS, overall survival; PD-1, programmed cell death protein-1; PD-L1, programmed cell death protei



# Phase III ASCENT-03: PFS by BICR



SG demonstrated statistically significant and clinically meaningful improvement in PFS vs chemo by BICR analysis, with a 38% reduction in risk of disease progression or death

Data cutoff date: April 2, 2025. aTwo-sided P-value from stratified log-rank test.

BICR, blinded independent central review; chemo, chemotherapy; HR, hazard ratio; PFS, progression-free survival; SG, sacituzumab govitecan.



# **Phase III ASCENT-03: Safety Summary**

Safety population	SG (n = 275)	Chemo (n = 276)		
Treatment component	SG	Taxane	Gemcitabine/ Carboplatin	
All treated patients, n	275	154	122	
Median duration of treatment, months (range)	8.3 (< 0.1-28.7)	6.3 (< 0.1-24.2)	5.8 (< 0.1-23.1)	

TEAEs, n (%)	SG (n = 275)	Chemo (n = 276)
Any TEAE	273 (99)	269 (97)
Grade ≥ 3 TEAEs	181 (66)	171 (62)
Treatment-related	167 (61)	147 (53)
Treatment-emergent SAE	71 (26)	67 (24)
Treatment-related	46 (17)	37 (13)
TEAEs leading to treatment discontinuation	10 (4)	33 (12)
TEAEs leading to dose interruption	181 (66)	171 (62)
TEAEs leading to dose reduction	101 (37)	124 (45)
TEAEs leading to death	7 (3)	1 (< 1)
Treatment-related	6 (2)	1 (< 1)

All treatment-related deaths with SG were due to infections; 5 infections were secondary to neutropenia. None of the 5 patients, who had risk factors for febrile neutropenia, received prophylaxis with G-CSF

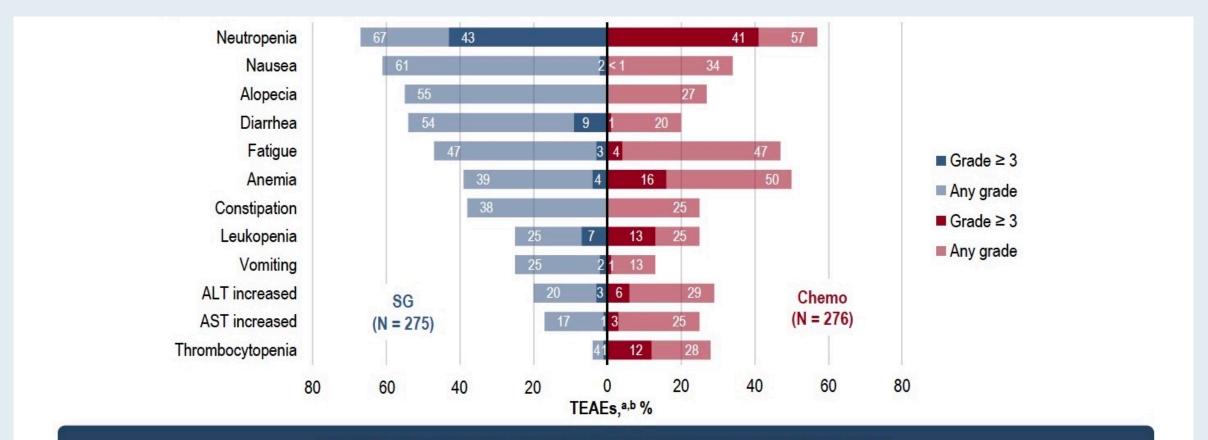
Rates of grade ≥ 3 TEAEs and treatment-emergent SAEs were similar for both groups. TEAEs leading to dose reduction or treatment discontinuation were lower with SG vs chemo

Data cutoff date: April 2, 2025. TEAEs were defined as any AEs that began or worsened on or after the first dose date of study drug up to 30 days after the last dose date of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurs first.

AE, adverse event; chemo, chemotherapy; G-CSF, granulocyte-colony stimulation factor; SAE, serious adverse event; SG, sacituzumab govitecan; TEAE, treatment-emergent adverse event.



### **Phase III ASCENT-03: Common AEs**



#### The AEs observed are consistent with the known safety profile of SG

Data cutoff date: April 2, 2025. aTEAEs were included if they occurred in ≥ 20% of patients in either group. bCombined preferred terms of Neutropenia includes neutrophil count decreased, Fatigue includes asthenia, Anemia includes hemoglobin decreased and red blood cell count decreased, Leukopenia includes white blood cell count decreased, Leukopenia includes white blood cell count decreased, Leukopenia includes white blood cell count decreased.

AE, adverse event; ALT, alanine aminotransferase; AST, aspartate aminotransferase; chemo, chemotherapy; SG, sacituzumab govitecan; TEAE, treatment-emergent adverse event.



# Sacituzumab Govitecan vs Chemotherapy as First Therapy After Endocrine Therapy in HR+/HER2-(IHC 0, 1+, 2+/ISH-) Metastatic Breast Cancer: Primary Results from ASCENT-07

Jhaveri K et al.

SABCS 2025; Abstract GS1-10.



#### **Abstract LBA22**



Patient-Reported Outcomes With Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated PD-L1+ Metastatic Triple-Negative Breast Cancer in the Phase 3 ASCENT-04/KEYNOTE-D19 Study

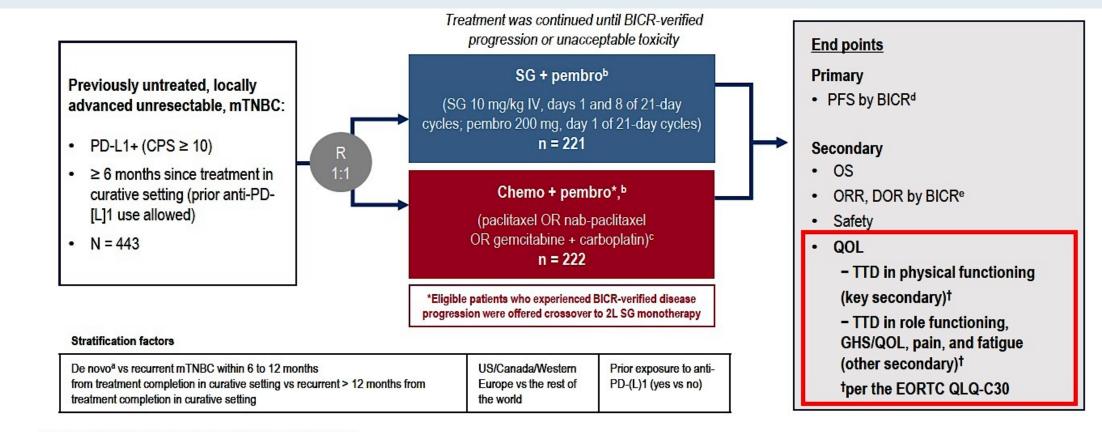
Evandro de Azambuja<sup>1</sup>, Peter Schmid<sup>2</sup>, Kevin Kalinsky<sup>3</sup>, Sherene Loi<sup>4</sup>, Sung-Bae Kim<sup>5</sup>, Clinton Yam<sup>6</sup>, Bernardo Rapoport<sup>7,8</sup>, Seock-Ah Im<sup>9</sup>, Barbara Pistilli<sup>10</sup>, Wassim Mchayleh<sup>11</sup>, David W Cescon<sup>12</sup>, Junichiro Watanabe<sup>13</sup>, Manuel Alejandro Lara Bañuelas<sup>14</sup>, Ruffo Freitas-Junior<sup>15</sup>, Javier Salvador Bofill<sup>16</sup>, Xue Wang<sup>17</sup>, Yiran Zhang<sup>17</sup>, Ling Shi<sup>18</sup>, Ann Chen<sup>17</sup>, Sara M Tolaney<sup>19</sup>

Institut Jules Bordet, Hôpital Universitaire de Bruxelles (H.U.B) and Université Libre de Bruxelles (ULB), Brussels, Belgium; <sup>2</sup>Centre for Experimental Cancer Medicine, Barts Cancer Institute, Queen Mary University of London, London, UK; <sup>3</sup>Winship Cancer Institute, Emory University, Atlanta, GA, USA; <sup>4</sup>Peter MacCallum Cancer Center, Melbourne, Australia; <sup>5</sup>Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; <sup>6</sup>The University of Texas MD Anderson Cancer Center, Houston, TX, USA; <sup>7</sup>The Medical Oncology Centre of Rosebank, Clinical and Translational Research Unit (CTRU), Saxonworld, South Africa; <sup>8</sup>Department of Immunology, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa; <sup>8</sup>Seoul National University Hospital, Cancer Research Institute, Seoul National University, Seoul, Republic of Korea; <sup>10</sup>Department of Cancer Medicine, Gustave Roussy, Villejuif, France; <sup>11</sup>AdventHealth Cancer Institute, Orlando, FL, USA; <sup>12</sup>Princess Margaret Cancer Centre, UHN, Toronto, ON, Canada; <sup>13</sup>Juntendo University Graduate School of Medicine, Tokyo, Japan; <sup>14</sup>SCIENTIA Investigación Clinica S.C., Chihuahua, Mexico; <sup>15</sup>CORA – Advanced Center for Diagnosis of Breast Diseases, Federal University of Goiás, Goiánia, Brazil; <sup>16</sup>Medical Oncology Department, Hospital Universitario Virgen del Rocio, Seville, Spain; <sup>17</sup>Gilead Sciences, Inc., Foster City, CA, USA; <sup>18</sup>Evidera Inc, Waltham, MA, USA; <sup>19</sup>Dana-Farber Cancer Institute, Harvard Medical School. Boston. MA. USA

Monday, October 20, 2025; 10:15 – 10:20 AM LBA 22



# Phase III ASCENT-04/KEYNOTE-D19 Study Design



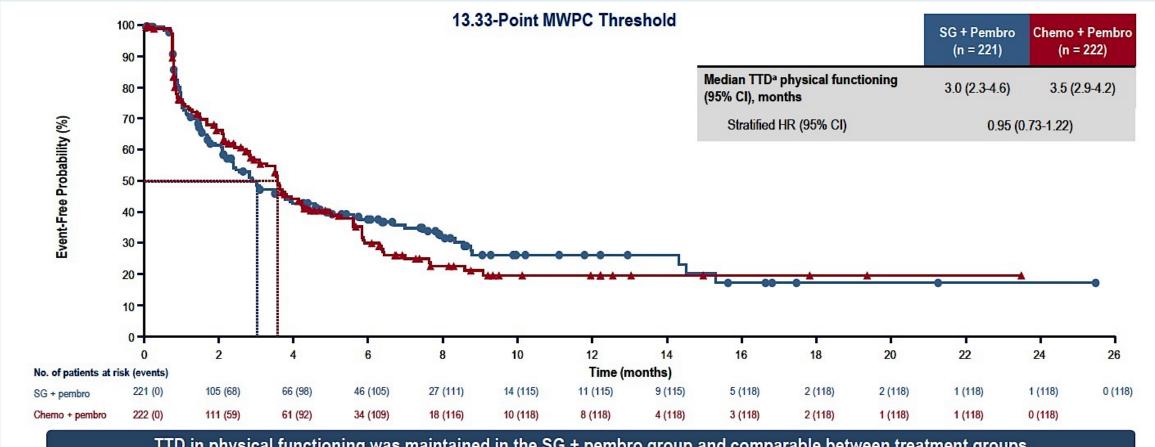
ClinicalTrials.gov identifier: NCT05382286; Data cutoff was March 3, 2025

<sup>a</sup>Up to 35% de novo mTNBC. <sup>b</sup>Pembro was administered for a maximum of 35 cycles. <sup>c</sup>Administered per country-specific prescribing information. <sup>d</sup>Per Response Evaluation Criteria in Solid Tumors, version 1.1.

2L, second-line; BICR, blinded independent central review; chemo, chemotherapy; CPS, combined positive score; DOR, duration of response; EORTC QLQ-C30, European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire C30; GHS, global health status; IV, intravenously; mTNBC, metastatic triple-negative breast cancer; ORR, objective response rate; OS, overall survival; PD-L1, programmed cell death-ligand 1; pembro, pembrolizumab; PFS, progression-free survival; PRO, patient-reported outcome; QOL, quality of life; R, randomization; SG, sacituzumab govitecan; TTD, time to first deterioration.



# Phase III ASCENT-04/KEYNOTE-D19: Time to First Deterioration in Physical Function



TTD in physical functioning was maintained in the SG + pembro group and comparable between treatment groups



aTTD defined as the time between randomization and the assessment at which a patient first experienced a worsening exceeding prespecified MWPC from BL or death.

BL, baseline; chemo, chemotherapy; Cl. confidence interval; HR, hazard ratio; MWPC, meaningful within-patient change; pembro, pembrolizumab; SG, sacituzumab govitecan; TTD, time to first deterioration.

# Phase III ASCENT-04/KEYNOTE-D19 Trial: Overall Safety Summary

ITT population	SG + P			- Pembro 222)
Treatment component	SG	Pembro	Chemo	Pembro
All treated patients, n	221	221	220	220
Median duration of treatment, mo (range)	8.9 (0.0-27.1)	8.5 (0.0-26.8)	6.2 (0.0-26.3)	6.4 (0.0-25.6)

n (%)	SG + Pembro (n = 221)	Chemo + Pembro (n = 220)
Any TEAE	220 (> 99)	219 (> 99)
Grade ≥ 3	158 (71)	154 (70)
Treatment-emergent SAE	84 (38)	68 (31)
Treatment-related	61 (28)	42 (19)
TEAEs leading to treatment discontinuation <sup>a</sup>	26 (12)	68 (31)
TEAEs leading to dose interruption	171 (77)	162 (74)
TEAEs leading to dose reduction <sup>b</sup>	78 (35)	96 (44)
TEAEs leading to death <sup>c</sup>	7 (3)	6 (3)
Treatment-related	3 (1)	1 (< 1)

Despite longer duration of treatment with SG + pembro, rates of grade ≥ 3 AEs were similar for both groups. TEAEs leading to dose reduction or treatment discontinuation were lower with SG + pembro

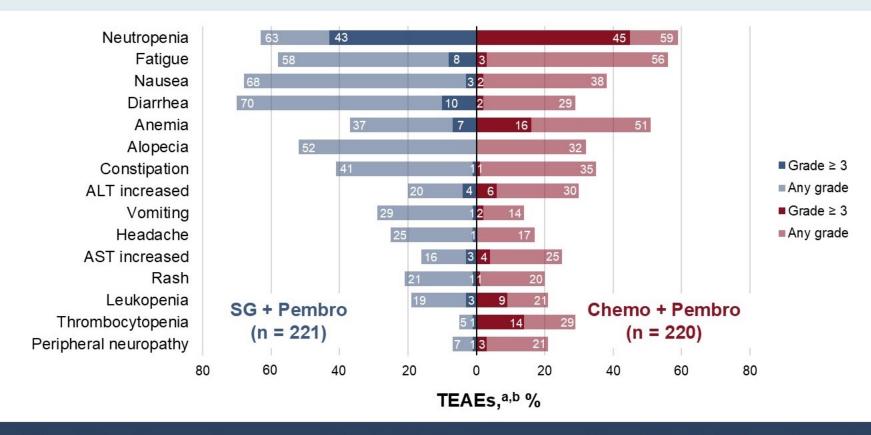


TEAEs were defined as any adverse events that began or worsened on or after the first dose date of study drug up to 30 days (or up to 90 days for SAEs) after the last dose date of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurred first. Data cutoff date: March 3, 2025.

The most common any-grade TEAEs that led to treatment discontinuation were pneumonitis (1%) for the SG + pembro group and neuropathy peripheral (5%), pneumonitis (3%), and thrombocytopenia (3%) for the chemo + pembro group. There was no dose reduction for pembrolizumab per the protocol. TeAEs leading to death were pneumonia, sepsis, neutropenic sepsis, pulmonary embolism, and suicide (1 each), as well as 2 deaths of unknown cause in the SG + pembro group, and cardiac arrest, large intestine perforation, pneumonia, sepsis, post-procedural complication, and death of unknown cause (1 each) in the chemo + pembro group.

Chemo, chemotherapy; pembro, pembrolizumab; SAE, serious adverse event; SG, sacituzumab govitecan; TEAE, treatment-emergent adverse event

# Phase III ASCENT-04/KEYNOTE-D19: Common AEs



#### The AEs observed are consistent with the known profiles of both SG and pembro

TEAEs were defined as any adverse events that began or worsened on or after the first dose date of study drug up to 30 days (or up to 90 days for SAEs) after the last dose date of study drug or the initiation of subsequent anticancer therapy (including crossover treatment) whichever occurred first. Data cutoff date: March 3, 2025.

aTEAEs were included if they occurred in ≥ 20% of patients in either arm. bCombined preferred terms of Neutropenia includes neutrophil count decreased, Leukopenia includes white blood cell count decreased, Anemia includes hemoglobin decreased and red blood cell count decreased, Thrombocytopenia includes platelet count decreased, Fatigue includes asthenia.

ALT, alanine aminotransferase; AST, aspartate aminotransferase; chemo, chemotherapy; pembro, pembrolizumab; SG, sacituzumab govitecan; TEAE, treatment-emergent adverse event.



# Phase III ASCENT-04/KEYNOTE-D19: AEs of Special Interest

	AESI a n (9/ )	SG + Pembro (n = 221)		Chemo + Pembro (n = 220)	
	AESI, <sup>a</sup> n (%)	Any Grade	Grade ≥ 3	Any Grade	Grade ≥ 3
	Neutropenia <sup>b</sup>	143 (65)	104 (47)	132 (60)	100 (45)
SIS	Hypersensitivity <sup>b</sup>	43 (19)	4 (2)	51 (23)	5 (2)
AES	Serious infections secondary to neutropeniab	6 (3)	5 (2)	3 (1)	3 (1)
1	Diarrhea (Grade 3 or higher)	N/A	22 (10)	N/A	5 (2)
	Overall	30 (14)	9 (4)	56 (26)	16 (7)
	Infusion reactions (not immune-mediated) <sup>a</sup>	11 (5)	3 (1)	19 (9)	5 (2)
	Pneumonitis <sup>b</sup>	5 (2)	3 (1)	10 (5)	2 (1)
	Colitis <sup>b</sup>	4 (2)	1 (< 1)	1 (< 1)	1 (< 1)
<u>ပ</u>	Hypothyroidism <sup>b</sup>	4 (2)	0	19 (9)	0
embro AESIs	Hypophysitis <sup>b</sup>	2 (1)	0	2 (1)	0
Pembi AESI	Hyperthyroidism <sup>b</sup>	2 (1)	0	5 (2)	0
ш	Severe skin reactions, <sup>b</sup> including Stevens-Johnson syndrome and toxic epidermal necrolysis	2 (1)	2 (1)	2 (1)	2 (1)
	Hepatitis <sup>b</sup>	1 (< 1)	0	2 (1)	2 (1)
	Adrenal insufficiency <sup>b</sup>	1 (< 1)	0	2 (1)	1 (< 1)
	Pancreatitis <sup>b</sup>	0	0	2 (1)	2 (1)

AESIs were consistent with the known safety profiles of each agent; no new safety concerns were observed and no increased rates of AESIs were observed when combining SG with pembro

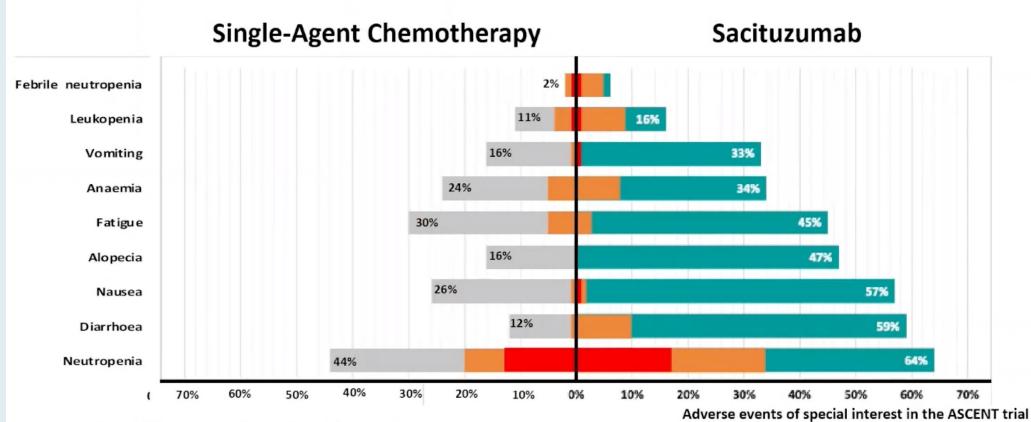
AESIs were adverse events determined based on a prespecified list of Medical Dictionary for Regulatory Activities (MedDRA) terms, which was updated with each new version of MedDRA. Immune-mediated adverse events were determined based on a prespecified list of Medical Dictionary for Regulatory Activities (MedDRA) terms, which was updated with each new version of MedDRA and specified as immune-mediated by the investigator. Data cutoff date: March 3, 2025.

3AESIs observed in ≥1% of patients in either group are presented: <sup>b</sup>Grouped term.

AESI, adverse event of special interest; chemo, chemotherapy; pembro, pembrolizumab; SG, sacituzumab govitecan.



# Safety of Sacituzumab versus Treatment of Physician's Choice in the ASCENT Trial



~5% of patients in both arms discontinued for any adverse reaction1

- Neutropenia or febrile neutropenia did not lead to any permanent discontinuation
- No patients discontinued treatment because of diarrhoea

The most frequently reported AEs leading to dose reduction were neutropenia (6.3%) and diarrhoea (3.3%)<sup>3</sup>

Bardia A, et al. ESMO 2020; Abstract LBA17.; Bardia A, et al, NEJM 2021



## Management of Sacituzumab Govitecan-Induced Diarrhea

#### Loperamide

- Early Intervention (provide patient with medication prophylactically)
- 2. 4 mg followed by 2 mg with every episode (max 16 mg/d)
- 3. Discontinue 12h after diarrhea resolves

#### In selected cases

- 1. Octreotide: 100-150ug TDS
- 2. Fluoroquinolones: If >24h, ANC <500 or fever
- 3. Atropine: If cholinergic response (rare)

	Grade 1	Grade 2	Grade 3	Grade 4	
Description	1-3	4-6	>6 or hospitalisation	Life threatening	
SG	Continue	Continue	Hold until <g2< th=""></g2<>		
Dose reduction	N/A	N/A	<ul> <li>1<sup>st</sup> occurrence: 25%</li> <li>2<sup>nd</sup> occurrence: 50%</li> <li>3<sup>rd</sup> occurrence: Discontinue</li> </ul>		



#### **Articles**

# Prevention of sacituzumab govitecan-related neutropenia and diarrhea in patients with HER2-negative advanced breast cancer (PRIMED): an open-label, single-arm, phase 2 trial

José Manuel Pérez-García, a,b,u María Gion, a,c,d,u Manuel Ruiz-Borrego, Isabel Blancas, f,g,h Elena López-Miranda, a,c,u Salvador Blanch, Sabela Recalde, Cristina Reboredo Rendo, Xavier González, Nerea Ancizar, Serafin Morales, Patricia Cortez, do Zuzanna Piwowarska, Eileen Shimizu, José Antonio Guerrero, Miguel Sampayo-Cordero, Alejandro Martínez-Bueno, Javier Cortés, a,b,d,q,r,u and Antonio Llombart-Cussaca, s,t,u,\*

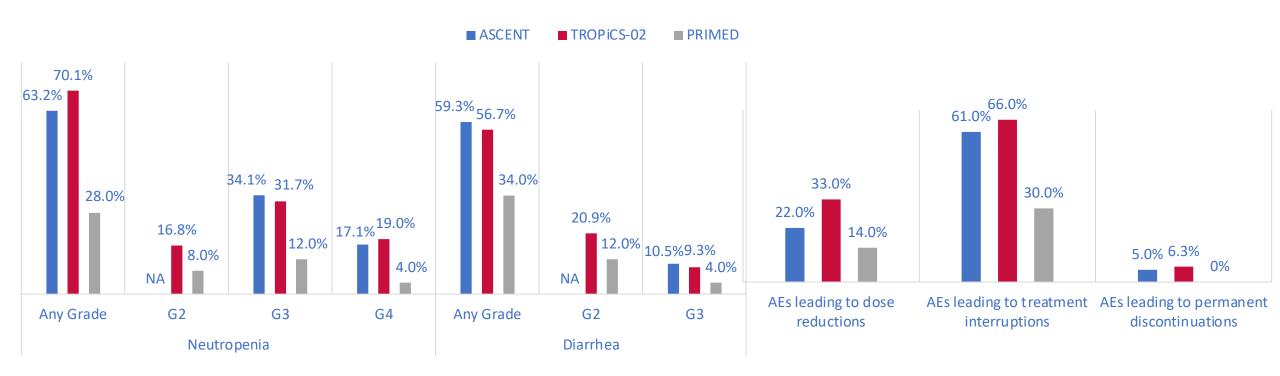


EClinicalMedicine 2025;85:103309.



# Rates of Neutropenia and Diarrhea in ASCENT, TROPiCS-02, and PRIMED

AEs Leading to Dose Reductions, Rx Interruptions, and Permanent D/C in ASCENT, TROPiCS-02, and PRIMED



50 patients; loperamide 4 mg day 2,3,4 then 9, 10, 11; G-CSF SC day 3, 4 and 10, 11

#### **Abstract LBA21**



First-line datopotamab deruxtecan (Dato-DXd) vs chemotherapy in patients with locally recurrent inoperable or metastatic triple-negative breast cancer (TNBC) for whom immunotherapy was not an option: Primary results from the randomised, phase 3 TROPION-Breast02 trial

Rebecca A. Dent<sup>1</sup>, Zhimin Shao<sup>2</sup>, Peter Schmid<sup>3</sup>, Javier Cortés<sup>4</sup>, David W. Cescon<sup>5</sup>, Shigehira Saji<sup>6</sup>, Kyung Hae Jung<sup>7</sup>, Thomas Bachelot<sup>8</sup>, Shouman Wang<sup>9</sup>, Gul Basaran<sup>10</sup>, Yee Soo Chae<sup>11</sup>, Rofhiwa Mathiba<sup>12</sup>, Shin-Cheh Chen<sup>13</sup>, Agostina Stradella<sup>14</sup>, Nicola Battelli<sup>15</sup>,

Naoki Niikura<sup>16</sup>, Kechen Zhao<sup>17</sup>, Petra Vuković<sup>18</sup>,

Micah J. Maxwell<sup>19</sup>, Tiffany A. Traina<sup>20</sup>

<sup>1</sup>National Cancer Center Singapore, Singapore; <sup>2</sup>Fudan University Shanghai Cancer Center, Fudan, China: 3 Centre for Experimental Cancer Medicine, Barts Cancer Institute, Queen Mary University of London, London, UK; 4International Breast Cancer Center (IBCC), Pangaea Oncology, Barcelona, Spain; 5 Princess Margaret Cancer Centre, Toronto, ON, Canada; 6 Fukushima Medical University, Fukushima, Japan: 7 Asan Medical Center - University of Ulsan College of Medicine, Seoul, Republic of Korea; &Centre Léon Bérard, Lyon, France; 9Xiangya Hospital of Central South University, Changsha, China; 10MAA Acibadem University, School of Medicine, Medical Oncology Departmen Istanbul, Türkiye; 11 Kyungpook National University Chilgok Hospital, Kyungpook National University School of Medicine, Kyungpook, Republic of Korea; 12 Charlotte Maxeke Johannesburg Academic Hospital, Johannesburg, South Africa; 13 Chang Gung Medical Foundation - Taipei Chang Gung Memorial Hospital, Taipei City, Taiwan; 14Institut Catala d'Oncologia - Hospital Duran i Reynals (ICO L'Hospitalet), Barcelona, Spain; 15Ospedale Generale Provinciale Macerata, Macerata, Italy; 16Tokai University School of Medicine, Kanagawa, Japan; 17Biometrics, Late-Stage Development, Oncology R&D, AstraZeneca, Wilmington, DE, USA: 18 Clinical Development, Late-Stage Development, Oncology R&D, AstraZeneca, Cambridge, UK; 19Clinical Development, Late-Stage Development, Oncology R&D, AstraZeneca, Gaithersburg, MD, USA: 20 Memorial Sloan Kettering Cancer Center (MSKCC), New York, NY, USA





# Phase III TROPION-Breast02 Study Design

#### Key inclusion criteria:

- Patients with histologically or cytologically documented locally recurrent inoperable or metastatic TNBC\*
- No prior chemotherapy or targeted systemic therapy in the locally recurrent inoperable or metastatic setting
- Immunotherapy not an option<sup>†</sup>
- ECOG PS 0 or 1
- No minimum DFI<sup>‡</sup>

# Dato-DXd 6 mg/kg IV Day 1 Q3W (n=323) Investigator's choice of chemotherapy (ICC)# Paclitaxel, nab-paclitaxel, capecitabine, eribulin mesylate/eribulin, carboplatin (n=321)

#### **Endpoints**

#### **Dual primary:**

- OS
- PFS by BICR per RECIST v1.1

#### Secondary included:

- PFS (investigator-assessed)
- ORR, DoR
- Safety

#### Randomisation stratified by:

- Geographic region (US/Canada/Europe vs other geographic regions)
- PD-L1 status (high [CPS ≥10] vs low [CPS <10])§</li>
- DFI history (de novo vs prior DFI 0-12 months vs prior DFI >12 months)¶
- Treatment continued until investigator-assessed RECIST v1.1 progressive disease, unacceptable toxicity, or another discontinuation criterion was met
- Following progression or discontinuation of study treatment, patients could receive subsequent therapies, including approved ADCs or chemotherapy, at the investigator's discretion<sup>∥</sup>

\*According to ASCO/CAP criteria. ¹Including patients with PD-L1-low tumours, or patients with PD-L1-low tumours with PD-L1-



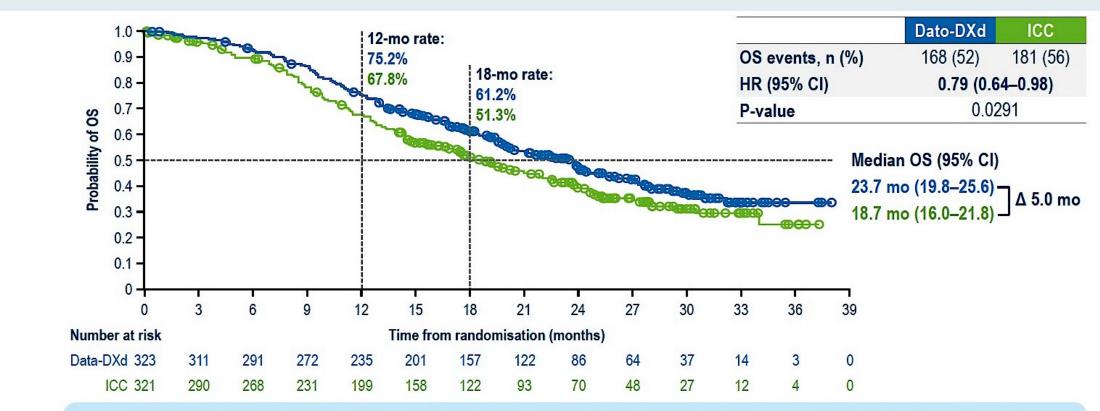
# Phase III TROPION-Breast02: PFS by BICR



Dato-DXd demonstrated a statistically significant and clinically meaningful improvement in PFS compared with ICC, reducing the risk of progression or death by 43%



# Phase III TROPION-Breast02: Overall Survival (OS)



Dato-DXd demonstrated a statistically significant and clinically meaningful improvement in OS compared with ICC, reducing the risk of death by 21%



# **Phase III TROPION-Breast02: Overall Safety Summary**

Median total treatment duration:

— Dato-DXd: 8.5 months (range 0.7–38.0)

-ICC: 4.1 months (range 0.1–32.0)

Patients with total exposure >12 months:

- Dato-DXd: 35.1%

-ICC: 9.4%

Treatment-related AEs, n (%)	Dato-DXd (n=319)	ICC (n=309)
Any grade	296 (93)	257 (83)
Grade ≥3	105 (33)	89 (29)
Serious TRAEs	29 (9)	26 (8)
Associated with dose interruption	76 (24)	60 (19)
Associated with dose reduction	85 (27)	56 (18)
Associated with discontinuation	14 (4)	23 (7)
Associated with death	0	0

Despite more than double the median duration of treatment in the Dato-DXd arm, rates of grade ≥3 and serious treatment-related AEs were similar, and discontinuations were lower, with Dato-DXd vs ICC



### **Phase III TROPION-Breast02: Common AEs**

Traction and valetad A.Co. in (0/)	Dato-DXo	i (n=319)	ICC (n=309)	
Treatment-related AEs, n (%)	Any Grade	Grade ≥3	Any Grade	Grade ≥3
Dry eye*	76 (24)	4 (1)	9 (3)	0
Stomatitis	182 (57)	27 (8)	27 (9)	0
Nausea	142 (45)	2 (<1)	53 (17)	2 (<1)
Constipation	72 (23)	1 (<1)	31 (10)	0
Vomiting	65 (20)	4 (1)	23 ( 7)	1 (<1)
Decreased appetite	49 (15)	1 (<1)	20 (6)	1 (<1)
Neutropenia <sup>†</sup>	39 (12)	10 (3)	90 (29)	40 (13)
Anaemia <sup>‡</sup>	48 (15)	6 (2)	64 (21)	10 (3)
Leukopenia <sup>§</sup>	27 (8)	3 (<1)	55 (18)	13 (4)
Peripheral neuropathy¶	14 (4)	0	75 (24)	5 (2)
Alopecia	130 (41)	0	96 (31)	1 (<1)
Fatigue#	101 (32)	8 (3)	86 (28)	9 (3)

<sup>\*</sup>In the Dato-DXd arm only, ophthalmologic assessments were required every 3 cycles while on therapy; this was not required in the ICC arm. For all patients in both arms, ophthalmologic assessments were required at baseline, as clinically indicated, and at end of therapy.

†Grouped term comprising preferred terms of neutropenia and neutrophil count decreased. ‡Grouped term comprising preferred terms of haemoglobin decreased, anaemia, and haematocrit decreased. §Grouped term comprising preferred terms of white blood cell count decreased and leukopenia. ¶Grouped term comprising preferred terms of neutropathy peripheral, peripheral motor neuropathy, paraesthesia, and peripheral sensory neuropathy. #Grouped term comprising preferred terms of fatigue, asthenia, and malaise.

|Per Common Terminology Criteria for Adverse Events version 5.0, the maximum grade for alopecia is grade 2.



# Phase III TROPION-Breast02: AEs of Special Interest with Dato-DXd

AESI category, n (%)	Dato-DXd (n=319)			ICC (n=309)		
Preferred term*	Grade 1	Grade 2	Grade ≥3	Grade 1	Grade 2	Grade ≥3
Oral mucositis/stomatitis†	78 (24)	87 (27)	27 (8)	22 (7)	8 (3)	0
Stomatitis	72 (23)	83 (26)	27 (8)	19 (6)	8 (3)	0
Ocular surface events‡§	76 (24)	50 (16)	23 (7)	9 (3)	5 (2)	1 (<1)
Dry eye	51 (16)	21 (7)	4 (1)	6 (2)	3 (1)	0
Keratitis	21 (7)	14 (4)	7 (2)	1 (<1)	0	0
Conjunctivitis	7 (2)	13 (4)	1 (<1)	0	0	0
Adjudicated drug-related ILD/pneumonitis¶	1 (<1)	7 (2)	1 (<1)#	1 (<1)	1 (<1)	0

#### Treatment-related oral mucositis/stomatitis:

- In the Dato-DXd arm, events led to dose interruption, reduction, and discontinuation in 11 (3%), 36 (11%), and 0 patients, respectively
- Grade ≥2 events resolved to grade ≤1 in 103/114 patients (90%) at data cutoff

#### Treatment-related ocular surface events:

- In the Dato-DXd arm, events led to dose interruption, reduction, and discontinuation in 18 (6%), 14 (4%), and 3 (<1%) patients, respectively
- Grade ≥2 events resolved to grade ≤1 in 49/73 patients (67%) at data cutoff



<sup>\*</sup>Details for preferred terms included if reported in ≥20 patients in either arm. <sup>1</sup>Comprising the preferred terms of aphthous ulcer, mouth ulceration, oral pain, oropharyngeal pain, pharyngeal pain, pharyngeal inflammation, and stomatitis. <sup>1</sup>Comprising the preferred terms of acquired corneal dystrophy, blepharitis, conjunctivitis, corneal disorder, corneal epithelium defect, corneal exfoliation, corneal exfoliation, corneal exfoliation, corneal exfoliation, photophobia, punctate keratitis, ulcerative keratitis, vision blurred, visual acuity reduced, visual impairment, and xerophthalmia. <sup>5</sup>In the Dato-DXd arm only, ophthalmologic assessments were required every 3 cycles while on therapy, this was not required in the ICC arm. For all patients in both arms, ophthalmologic assessments were required at baseline, as clinically indicated, and at end of therapy. ¶Comprising the preferred terms of interstitial lung disease and pneumonitis. <sup>#</sup>Grade 5 – this event was characterised by the investigator as grade 3 pneumonitis, with death assessed as related to breast cancer.

# **Datopotamab Deruxtecan Toxicities: Mucositis**

#### STEP 1: Prophylaxis

#### Initiate daily oral care plan prior to administration of first Dato-DXd dose



Gently brushing teeth after meals and at bedtime using a soft toothbrush and a bland fluoride-containing toothpaste



Cryotherapy should be considered



Daily flossing, unless it causes pain or bleeding



Education on the importance of oral hygiene, hydration, and lubrication of the oral mucosa and adherence to oral care plan



Daily use of a steroid-containing mouthwash<sup>a,b</sup>

#### STEP 2: Monitor



STEP 3: Manage

#### Supportive care

- Increase frequency of bland mouthwashes to up to every hour, if necessary
- As soon as oral pain, inflammation, and/or ulceration develops, strongly consider using a steroid-containing mouthwash<sup>a</sup>



- · Provide pain management
- Consider referral to a dentist, oral surgeon, oral medicine expert, or dermatologist for severe or persistent events



Bernadett Szabados MD

#### **Grading and dose modifications**

#### Grade 1

Maintain dose

#### Grade 2

Consider a dose delay or reduction if clinically indicated

#### Grade 3

- If prophylactic/supportive medications have not yet been optimized, delay dose until event has been resolved to ≤ grade 1 or baseline, optimize medications, then maintain dose
- If prophylactic/supportive medications have already been optimized, delay dose until resolved to ≤ grade 1 or baseline, and then reduce dose by 1 level

#### Grade 4

Discontinue Dato-DXd

Meric-Bernstam et al., ASCO GU 2025





#### **Abstract LBA23**



Sacituzumab tirumotecan (sac-TMT) vs investigator's choice of chemotherapy in previously treated locally advanced or metastatic hormone receptor-positive, HER2-negative (HR+/HER2-) breast cancer: results from the randomized, multi-center phase 3 OptiTROP-Breast02 study

Ying Fan<sup>1</sup>, Huihui Li<sup>2</sup>, Hao Wang<sup>3</sup>, Shusen Wang<sup>4</sup>, Haijun Yu<sup>5</sup>, Zhongsheng Tong<sup>6</sup>, Zhengkui Sun<sup>7</sup>, **Man Li<sup>8</sup>**, Xiying Shao<sup>9</sup>, Yongmei Yin<sup>10</sup>, Quchang Ouyang<sup>11</sup>, Jian Liu<sup>12</sup>, Wenhui Wang<sup>13</sup>, Jiuwei Cui<sup>14</sup>, Xinhong Wu<sup>15</sup>, Gesha Liu<sup>16</sup>, Yina Diao<sup>16</sup>, Xiaoping Jin<sup>16</sup>, Junyou Ge<sup>16, 17</sup>, Binghe Xu<sup>1</sup>

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#### Presenter: Professor Man Li

The Second Affiliated Hospital of Dalian Medical University, Dalian, China

Sat. 18.10.2025



# Phase III OptiTROP-Breast02 Study Design

#### **Key Eligibility**

- HR+/HER2- BC\*
- Prior 1 4 lines of chemotherapy
- At least one endocrine therapy, CDK 4/6 inhibitor, and taxane in any setting

# R 1:1

N=399

Sac-TMT 5 mg/kg IV, Q2W

Investigator choice chemo (eribulin, capecitabine, gemcitabine or vinorelbine)

#### **Primary endpoints**

PFS by BICR per RECIST v1.1

#### **Secondary endpoints**

- PFS (investigator assessed)
- · OS
- · ORR, DCR and DoR

#### Stratification Factors:

- 1. Lines of chemotherapy (1 vs >1)
- 2. HER2 status (zero vs low) \*
- 3. Endocrine therapy ≥ 6 months (yes vs no) †

#### Statistical considerations:

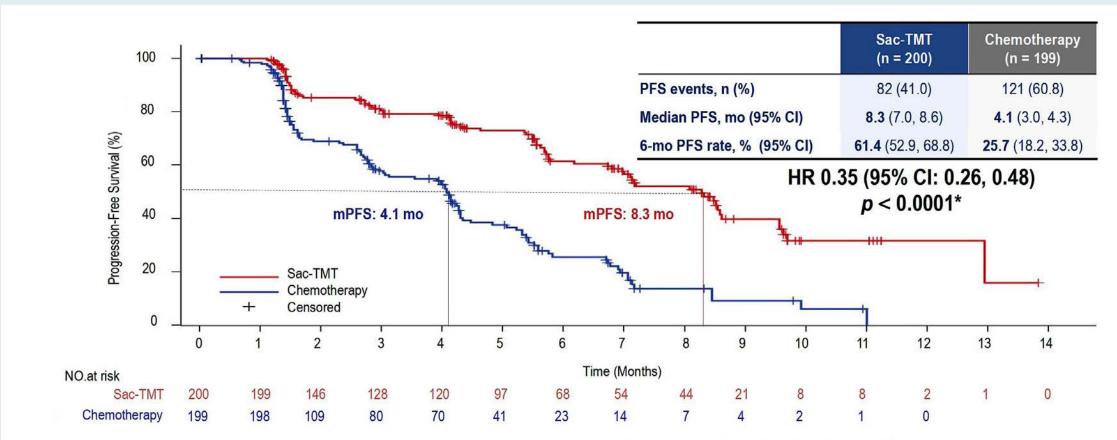
- Pre-specified IA for PFS was performed when all patients had the opportunity to have 1 post-baseline scan and at least 188 PFS events were occurred
- Pre-specified IA for OS: approximately 165 OS events occurred
- Lan-DeMets O'Brien-Fleming α-spending function for both PFS and OS IA

\*HER2- BC includes two subtypes: HER2-zero and HER2-low. HER2-zero: No staining, or barely perceptible staining with a proportion > 0% but ≤ 10%; HER2-low defined as IHC1+, or IHC2+/ISH-negative. † If no prior endocrine therapy in advanced setting, assess if (neo)adjuvant endocrine therapy duration ≥ 2 years.

BC, breast cancer; BICR, blinded independent central review; CDK 4/6, cyclin dependent kinase 4/6; DCR, disease control rate; DoR, duration of response; IA, interim analysis; OS, overall survival; Q2W, every 2 weeks; RECIST, Response Evaluation Criteria in Solid Tumors.



# Phase III OptiTROP-Breast02: PFS by BICR



The investigator-assessed PFS was consistent with BICR: HR 0.39 (95% CI: 0.30, 0.52)

BICR = blinded independent central review



<sup>\*</sup> Based on pre-specified PFS IA, one-sided *P* value was less than the pre-specified efficacy boundary to achieve statistically significant improvement (one-sided alpha level of 0.010 determined by the O'Brien-Fleming alpha spending function).

# Phase III OptiTROP-Breast02: Overall Safety Summary

TRAEs, n (%)	Sac-TMT (n = 200)	Chemotherapy (n = 196)
All grades	199 (99.5)	195 (99.5)
Grade ≥ 3	124 (62.0)	127 (64.8)
Serious TRAEs	25 (12.5)	29 (14.8)
Associated with dose interruption	80 (40.0)	89 (45.4)
Associated with dose reduction	63 (31.5)	54 (27.6)
Associated with discontinuation	0	1 (0.5)
Associated with death	0	0

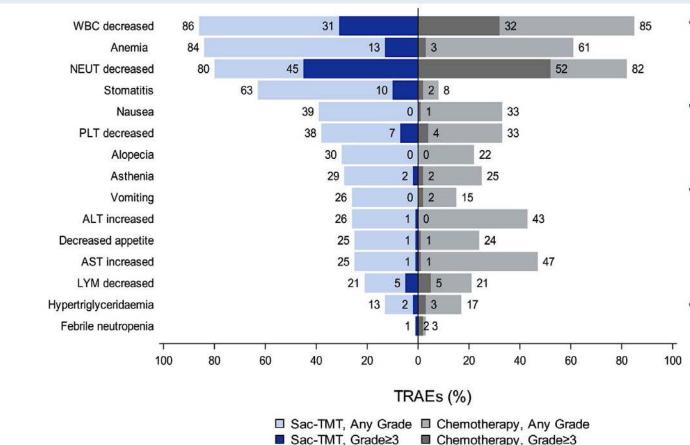
- The incidence of all-grade and grade ≥ 3 TRAEs was similar between the two groups, which were predominantly hematological AEs.
- Incidence of dose reductions was similar between the two groups.
- In the sac-TMT group, there were no TRAEs leading to discontinuation and no treatment-related deaths.

Data cutoff date: Jan 22, 2025.

TRAEs, treatment-related adverse events.



## **Phase III OptiTROP-Breast02: Safety**



- The most common TRAEs for both sac-TMT and chemotherapy were hematologic toxicities.
- Grade ≥ 3 diarrhea occurred in 1.0% of patients in the sac-TMT group.
- Low ocular surface toxicity (11.5% dry eyes, 4.0% corneal disease, all grade 1-2) observed in the sac-TMT group.
- ILD/pneumonitis occurred in 1.5% and 1.0% of patients (all grade 1-2) in the sac-TMT and chemotherapy groups.



<sup>\*</sup> Summary of TRAEs that occurred in either treatment group at an incidence of ≥ 20% for any grade or ≥ 2% for grade ≥ 3.

ALT, alanine aminotransferase; AST, aspartate aminotransferase; ILD, interstitial lung disease; LYM, lymphocyte count; NEUT, neutrophil count; PLT, platelet count; WBC, white blood cell

## **Agenda**

Introduction

Overview: Molecular basis of antibody-drug conjugate (ADC) toxicities — Sequencing of ADCs and mechanisms of resistance

Case 1 Dr Zelkowitz – 68-year-old woman

■ Data Review: TROP2-targeted ADCs (sacituzumab govitecan, Dato-DXd, sac TMT)

Case 2 Dr Gupta – 74-year-old woman

Case 3 Dr Agrawal – 83-year-old woman

Case 4 Dr Favaro – 70-year-old woman

■ Data Review: Trastuzumab deruxtecan

Case 5 Dr Rupard – 78-year-old woman

Case 6 Dr Ku – 72-year-old woman

■ Data Review: Other HER2-targeted agents



Case Presentation: 74-year-old woman with recurrent ER-neg, HER2-low, PD-L1-pos mBC with disease progression on *nab* paclitaxel/atezolizumab responds to sacituzumab govitecan



Dr Ranju Gupta (Bethlehem, Pennsylvania)



## **Agenda**

Overview: Molecular basis of antibody-drug conjugate (ADC) Introduction toxicities — Sequencing of ADCs and mechanisms of resistance Case 1 Dr Zelkowitz – 68-year-old woman Data Review: TROP2-targeted ADCs (sacituzumab govitecan, Dato-DXd, sac TMT) Case 2 Dr Gupta – 74-year-old woman Dr Agrawal – 83-year-old woman Case 3 Dr Favaro – 70-year-old woman Case 4 ■ Data Review: Trastuzumab deruxtecan Case 5 Dr Rupard – 78-year-old woman Dr Ku – 72-year-old woman Case 6 ■ Data Review: Other HER2-targeted agents



Case Presentation: 83-year-old woman with recurrent ER+, HER2-low (IHC 1+) mBC with disease progression on T-DXd then receives datopotamab deruxtecan and has pulmonary symptoms



Dr Laila Agrawal (Louisville, Kentucky)



# **Agenda**

Introduction	Overview: Molecular basis of antibody-drug conjugate (ADC) toxicities — Sequencing of ADCs and mechanisms of resistance				
Case 1	Dr Zelkowitz – 68-year-old woman				
■ Data Revie	w: TROP2-targeted ADCs (sacituzumab govitecan, Dato-DXd, sac TMT)				
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Case 4	Dr Favaro – 70-year-old woman				
■ Data Revie	w: Trastuzumab deruxtecan				
Case 5	Dr Rupard – 78-year-old woman				
Case 6	Dr Ku – 72-year-old woman				
■ Data Revie	■ Data Review: Other HER2-targeted agents				



# ER-Positive, HER2-Negative or Low Metastatic Breast Cancer (mBC): Sequencing of Systemic Therapies After Endocrine Treatment

#### **ER-positive, HER2-low**

- Trastuzumab deruxtecan versus TROP2-targeted ADC (sacituzumab govitecan, datopotamab deruxtecan)
- Capecitabine
- Other chemotherapy

### **ER-positive**, **HER2-negative**

- Sacituzumab govitecan versus datopotamab deruxtecan
- Capecitabine
- Other chemotherapy

#### **Clinical factors**

- PS, comorbidities
- Tumor-related symptoms
- Visceral, CNS disease
- Prior systemic treatment



# ER-Negative, HER2-Negative or Low, PD-L1-Positive mBC: Sequencing of Systemic Therapies

### ER-negative, HER2-low, PD-L1-positive (immunotherapy)

- Trastuzumab deruxtecan versus TROP2-targeted ADC (sacituzumab govitecan, datopotamab deruxtecan)
- Capecitabine
- Other chemotherapy

### ER-negative, HER2-negative, PD-L1-positive (immunotherapy)

- Sacituzumab govitecan versus datopotamab deruxtecan
- Capecitabine
- Other chemotherapy

#### **Clinical factors**

- PS, comorbidities
- Tumor-related symptoms
- Visceral, CNS disease
- Prior systemic treatment



# ER-Negative, HER2-Negative or Low, PD-L1-Negative mBC: Sequencing of Systemic Therapies

#### **ER-negative, HER2-low, PD-L1-negative**

- Trastuzumab deruxtecan versus TROP2-targeted ADC (sacituzumab govitecan, datopotamab deruxtecan)
- Capecitabine
- Other chemotherapy

### **ER-negative, HER2-negative, PD-L1-negative**

- Sacituzumab govitecan versus datopotamab deruxtecan
- Capecitabine
- Other chemotherapy

#### **Clinical factors**

- PS, comorbidities
- Tumor-related symptoms
- Visceral, CNS disease
- Prior systemic treatment



Case Presentation: 70-year-old woman with recurrent ER+, HER2-low (IHC 1+) mBC including bladder metastases has disease progression after palbociclib/letrozole then capivasertib/fulvestrant then nab paclitaxel



**Dr Justin Favaro (Charlotte, North Carolina)** 



#### **Abstract LBA18**





Trastuzumab deruxtecan (T-DXd) + pertuzumab vs taxane + trastuzumab + pertuzumab (THP) for patients with HER2+ advanced/metastatic breast cancer: additional analyses of DESTINY-Breast09 in key subgroups of interest

### Sibylle Loibl, MD, PhD

University Hospital Goethe, University Frankfurt/M, GBG Neu-Isenburg, Germany

Co-authors: Zefei Jiang, Romualdo Barroso-Sousa, Yeon Hee Park, Cristina Saura, Mothaffar F Rimawi, Andreas Schneeweiss, Masakazu Toi, Seock-Ah Im, Zhongsheng Tong, Umut Demirci, Cynthia Villarreal-Garza, Chiun-Sheng Huang, Toshimi Takano, Valentina Guarneri, Shoubhik Mondal, Doudou Huang, Angela Zeng, Sara M Tolaney

On behalf of the DESTINY-Breast09 investigators

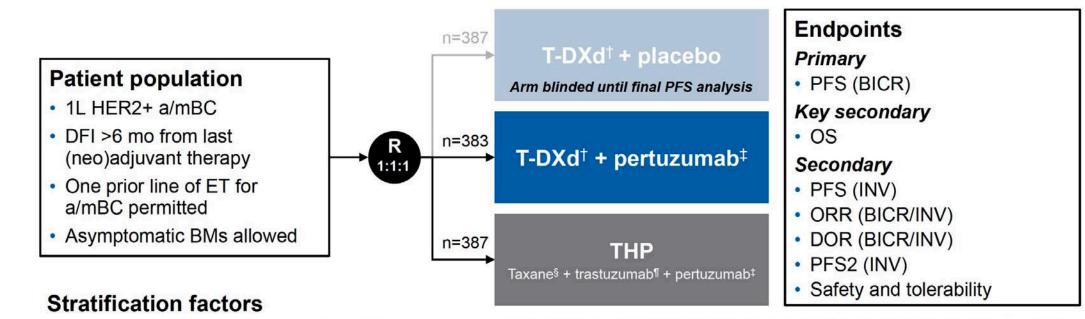
Sunday, October 19, 2025 Presentation LBA18







## Phase III DESTINY-Breast09 Study Design



- If T-DXd was discontinued owing to AEs (except Grade >2 ILD), patients could switch to trastuzumab
- Concurrent use of ET (aromatase inhibitor or tamoxifen) was allowed for those with HR+ disease after six cycles of T-DXd or discontinuation of taxane



De-novo (~52%) vs recurrent a/mBC

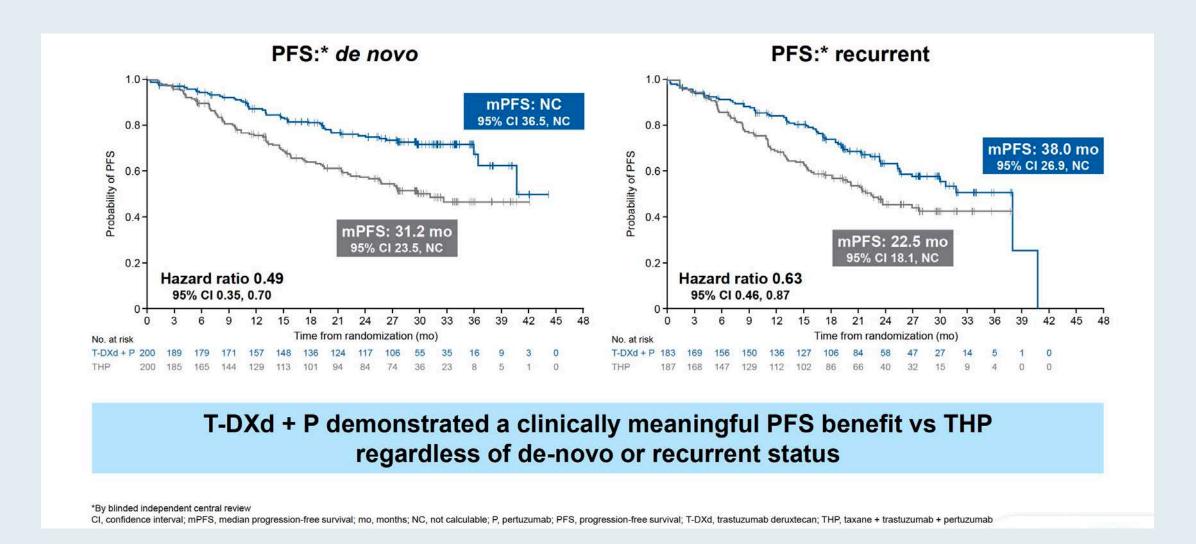
PIK3CAm detected (~31%) vs not detected

HR+ (~54%) or HR-

<sup>\*</sup>Open label for THP arm, double blinded for pertuzumab in experimental arms; 15.4 mg/kg Q3W; 1840 mg loading dose, then 420 mg Q3W; Spaclitaxel 80 mg/m² QW or 175 mg/m² Q3W, or docetaxel 75 mg/m² Q3W for a minimum of six cycles or until intolerable toxicity; 8 mg/kg loading dose, then 6 mg/kg Q3W; Without loading dose

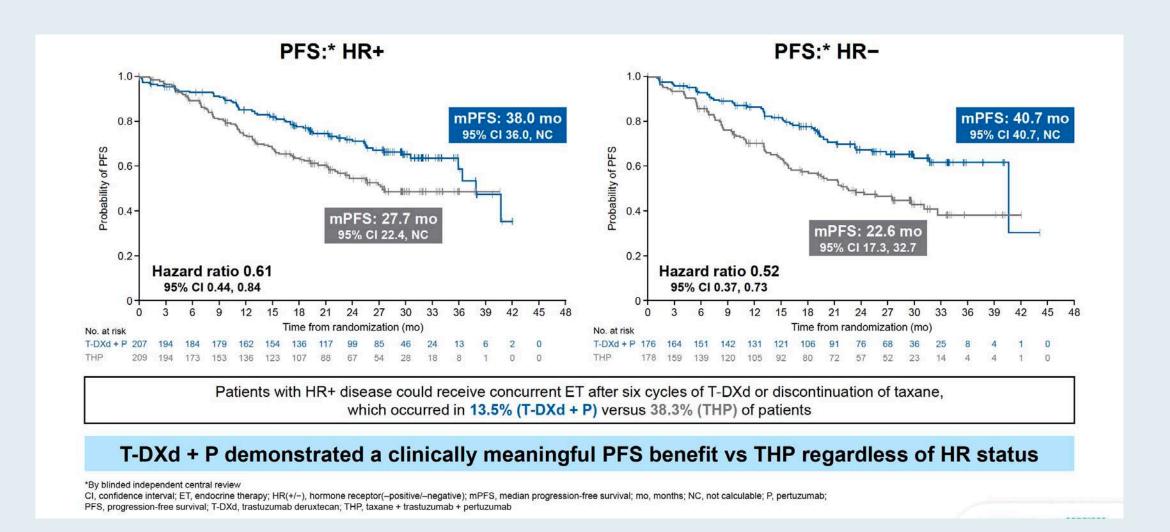
<sup>1</sup>L, first-line; AE, adverse event; a/mBC, advanced/metastatic breast cancer; BICR, blinded independent central review; BM, brain metastasis; DFI, disease-free interval; DOR, duration of response; ET, endocrine therapy; HER2+, human epidermal growth factor receptor 2–positive; HR+/-, hormone receptor–positive/–negative; ILD, interstitial lung disease; INV, investigator; mo, months; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; PFS2, second progression-free survival; PIK3CAm, PIK3CA mutation; Q3W, every 3 weeks; QW, once weekly; R, randomization; T-DXd, trastuzumab deruxtecan; THP, taxane + trastuzumab + pertuzumab 1. Tolaney SM, et al. Oral presentation at ASCO 2025 (Abstract LBA1008); 2. NCT04784715, Updated, August 1, 2025, Available from: https://clinicaltrials.gov/study/NCT04784715 (Accessed October 15, 2025)

# **Phase III DESTINY-Breast09: PFS by Treatment Status**





## Phase III DESTINY-Breast09: PFS by HR Status





# Phase III DESTINY-Breast09 Trial Interim Results: Overall Safety Summary

	Safety analysis set*	
	T-DXd + P (n=381)	THP (n=382)
Total exposure, patient years	659.7	564.0
Any TEAE, n (%)	380 (99.7)	378 (99.0)
Possibly treatment-related TEAEs (investigator assessed), n (%) Grade ≥3	373 (97.9) 209 (54.9)	369 (96.6) 200 (52.4)
Serious TEAEs, n (%)	103 (27.0)	96 (25.1)
TEAEs associated with any treatment discontinuation,† n (%)	79 (20.7)	108 (28.3)
TEAEs associated with any dose interruptions,† n (%)	262 (68.8)	187 (49.0)
TEAEs associated with any dose reductions,† n (%)	175 (45.9)	76 (19.9)
TEAEs with outcome of death, n (%) Possibly treatment related (investigator assessed)‡	13 (3.4) 5 (1.3)	3 (0.8) 1 (0.3)

#### Median total treatment duration:

• T-DXd + P: 21.7 mo (range 0.3-44.5)

T-DXd: 20.0 mo§

• THP: 16.9 mo (range 0.7–41.7)

#### Median treatment duration for taxanes:

Docetaxel: 5.5 mo (range 0.7–37.4)

Paclitaxel: 4.4 mo (range 0.2–30.7)

#### Median number of cycles for taxanes:

• Docetaxel: 8 (range 1-51)

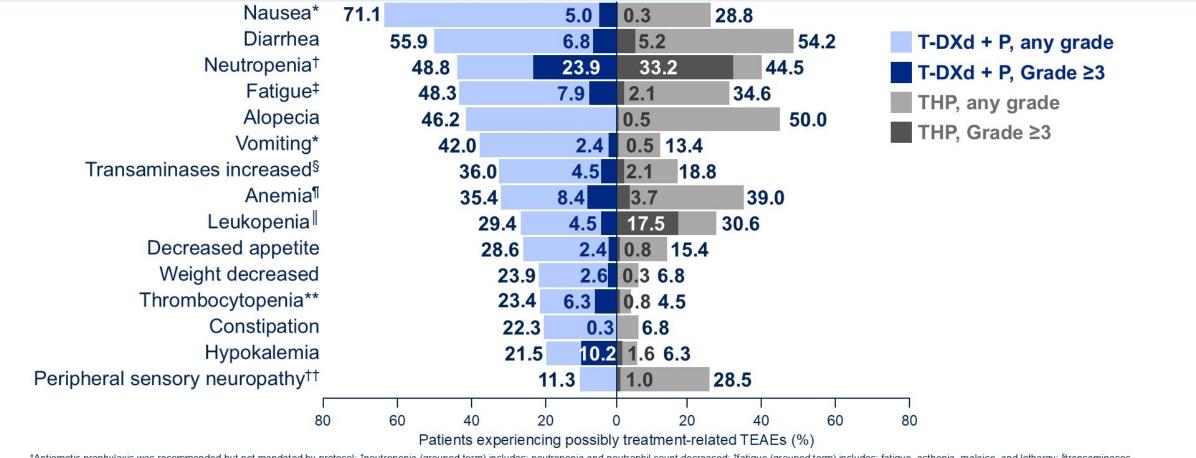
Paclitaxel: 6 (range 1–42)



<sup>\*</sup>Safety analyses included all patients who received at least one dose of study treatment (at least one study drug); †dose modifications or discontinuations relate to any component of each arm; ‡treatment-related TEAEs with outcome of death were pneumonitis (n=1), sepsis (n=1), septic shock (n=1), febrile neutropenia (n=1) in the T-DXd + P arm, and anemia (n=1) in the THP arm; §excludes data from the 8.7% (33/380) of treated patients who received trastuzumab after discontinuing T-DXd due to TEAEs

mo, months; P, pertuzumab; T-DXd, trastuzumab deruxtecan; TEAE, treatment-emergent adverse event; THP, taxane + trastuzumab + pertuzumab

## Phase III DESTINY-Breast09 Interim Results: Common Adverse Events



<sup>\*</sup>Antiemetic prophylaxis was recommended but not mandated by protocol; †neutropenia (grouped term) includes: neutropenia and neutrophil count decreased; ‡fatigue (grouped term) includes: fatigue, asthenia, malaise, and lethargy; §transaminases increased (grouped term) includes: transaminases increased, aspartate aminotransferase increased, alanine aminotransferase increased, gamma-glutamyltransferase increased, liver function test abnormal, hepatic function abnormal, and liver function test increase; ¶anemia (grouped term) includes: anemia, hemoglobin decreased, hematocrit decreased, and red blood cell count decreased; [leukopenia (grouped term) includes: leukopenia and white blood cell count decreased; \*\*thrombocytopenia (grouped term) includes: platelet count decreased and thrombocytopenia; ††peripheral sensory neuropathy (grouped term) includes: neuropathy peripheral sensory neuropathy, and polyneuropathy
P, pertuzumab; T-DXd, trastuzumab deruxtecan; TEAE, treatment-emergent adverse event; THP, taxane + trastuzumab + pertuzumab



## Phase III DESTINY-Breast09 Interim Results: AEs of Special Interest

### Adjudicated drug-related ILD/pneumonitis\*

n (%)	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Any grade
T-DXd + P (n=381)	17 (4.5)	27 (7.1)	0	0	2 (0.5)	46 (12.1)
THP (n=382)	2 (0.5)	2 (0.5)	0	0	0	4 (1.0)

## Left ventricular dysfunction<sup>†</sup>

n (%)	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Any grade
T-DXd + P (n=381)	4 (1.0)	30 (7.9)	7 (1.8)	1 (0.3)	0	42 (11.0)
THP (n=382)	1 (0.3)	19 (5.0)	7 (1.8)	0	0	27 (7.1)

Safety analysis set

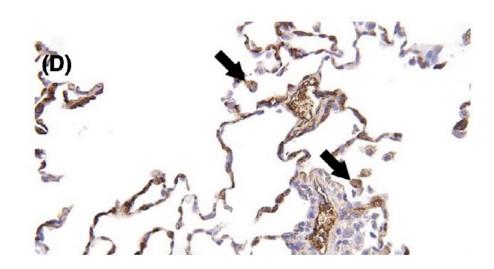
<sup>\*</sup>Adjudicated drug-related ILD/pneumonitis (grouped term) includes: chronic obstructive pulmonary disease, interstitial lung disease, organizing pneumonia, and pneumonitis, †left ventricular dysfunction (grouped term) includes: potential heart failure, cardiac failure, cardiac failure chronic, ejection fraction decreased, left ventricular dysfunction, and right ventricular failure

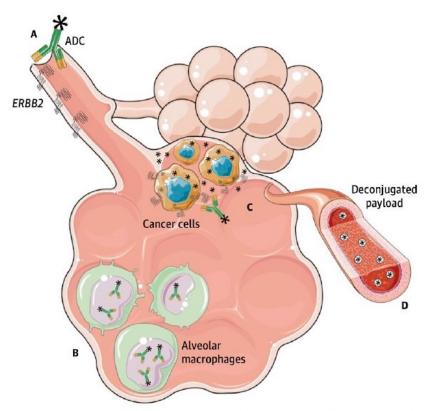
ILD. interstitial lung disease; P, pertuzumab; T-DXd, trastuzumab deruxtecan; THP, taxane + trastuzumab + pertuzumab



# **Lung Toxicity**

 Alveolar macrophages express high amounts of FcγR and were positive for DXd by IHC





Tarantino, JAMA Oncology 2021 Kumagai, Canc Science 2020



# **Management of ILD**

#### **Routine Monitoring**

- 1. Monitor for symptoms (cough, dyspnea, pyrexia)
- 2. Review every 4-6 weeks
- 3. Monitor SpO2 (examine if drop by 2-4% for 1-3d)
- 4. CT scans every 9-12 weeks

#### Diagnostic if ILD suspected

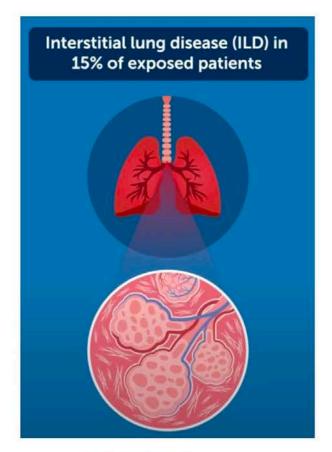
- 1. Lung function test
- 2. CT chest scan (ideally high-resolution CT)
- 3. Possibly Bronchoscopy
- 4. Bloods, blood and sputum cultures

	Grade 1	Grade 2	Grade 3/4	
Description	Asymptomatic (diagnostic observations only)	Symptomatic; limiting instrument. ADL	Severe symptoms; limiting self-care ADL; oxygen (G3); Life-threatening (G4)	
T-DXd	Hold (restart if resolved within 49 days, otherwise discontinue)	Discontinue	Discontinue	
Dose reduction	Same dose if ≤28d, lower dose if > 28d	N/A	N/A	
Steroids	0.5 mg/kg /day	≥1 mg/kg/day	Methylprednisolone i.v. 500-1000 mg/d for 3d, followed by ≥1 mg/kg/d prednisolone for 14d	
Escalation	If worsens despite initiation of steroids, follow Grade 2 guidelines	if not better within 5d: if not better within 5d: Increase dose or switch to IV Infliximab, IVIG or MM		
Duration	Until improvement, followed by gradual taper over ≥4 weeks	For at least 14d or until complete resolution of clinical and chest CT findings then gradually taper (for at least 4wks)		



## **T-DXd Toxicities: ILD**

## The Five"S" Rules



Bernadett Szabados MD

SCREENING	<ul> <li>Careful patient selection</li> <li>Regular clinical assessments to exclude signs/symptoms of ILD.</li> </ul>
SCANNING	<ul> <li>High-resolution CT scans of the chest.</li> <li>A baseline scan is recommended, with repeat scans to be performed every 6-12 weeks.</li> </ul>
SYNERGY	<ul> <li>Minimizing the risk of ILD involves teamwork</li> <li>Educating patients and all the care team</li> <li>Multidisciplinary management once ILD is suspected.</li> </ul>
SUSPENDING TREATMENT	<ul> <li>T-DXd should always be interrupted if ILD is suspected;</li> <li>Tt can only be restarted in the case of asymptomatic ILD that fully resolves.</li> </ul>
STEROIDS	The mainstay for treating T-DXd-induced ILD remains corticosteroids, with the dose to be adapted to the toxicity grade

Tarantino et al., JCO Oncology Practice, 2023





# Management of Left Ventricular Ejection Fraction (LVEF) Changes Associated with T-DXd

#### **Routine Monitoring**

- 1. LVEF assessment at baseline
- 2. Repeat LVEF every 3 months

	LVEF >45%	LVEF 40-45%	LVEF <40%		
Decrease from BL <10%	Continue	Continue. Repeat LVEF after 3 weeks			
Decrease from BL 10-20%	Continue	<ul> <li>Hold T-DXd.</li> <li>Repeat LVEF after 3 weeks.</li> <li>If not recovered to within 10% from BL, discontinue.</li> <li>If recovered, resume at same dose</li> </ul>	<ul> <li>Hold T-DXd.</li> <li>Repeat LVEF after 3 weeks.</li> <li>If confirmed, discontinue</li> </ul>		
Decrease from BL >20%	<ul> <li>Hold T-DXd.</li> <li>Repeat LVEF after 3 weeks.</li> <li>If confirmed, discontinue</li> </ul>				

Discontinue if symptomatic congestive heart failure



#### **Abstract LBA1**





Trastuzumab deruxtecan (T-DXd) vs trastuzumab emtansine (T-DM1) in patients with high-risk human epidermal growth factor receptor 2-positive (HER2+) primary breast cancer with residual invasive disease after neoadjuvant therapy: Interim analysis of DESTINY-Breast05

<u>Charles E Geyer Jr</u>,<sup>a,b</sup> Yeon Hee Park, Zhiming Shao, Chiun-Sheng Huang, Carlos Barrios, Jame Abraham, Aleix Prat, Naoki Niikura, Michael Untch, Seock-Ah Im, Wei Li, Huiping Li, Yongsheng Wang, Herui Yao, Sung-Bae Kim, Elton Mathias, Yuta Sato, Wenjing Lu, Hanan Abdel-Monem, Sibylle Loibl

On behalf of the DESTINY-Breast05 investigators

<sup>a</sup>NSABP Foundation, Pittsburgh, PA, USA <sup>b</sup>University of Pittsburgh Hillman Cancer Center, Pittsburgh, PA, USA

Saturday, October 18, 2025 Presentation LBA1







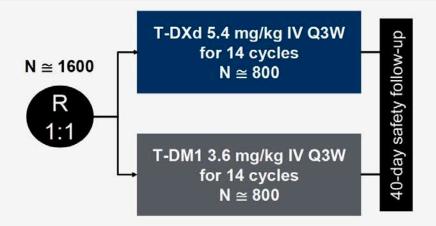
## Phase III DESTINY-Breast05 Study Design

#### **Key Eligibility Criteria**

- Residual invasive disease in the breast and/or axillary lymph nodes after neoadjuvant chemotherapy with HER2-directed therapy (NAT)<sup>a</sup>
- High-risk defined as presentation prior to NAT with:
  - Inoperable eBC (cT4,N0-3,M0 or cT1-3,N2-3,M0)
     OR
  - Operable eBC (cT1-3,N0-1,M0) with axillary node-positive disease (ypN1-3) after NAT
- Centrally confirmed HER2+ (IHC 3+ or ISH+) eBC
- · ECOG PS 0 or 1

#### Stratification factors

- Extent of disease at presentation (inoperable, operable)
- HER2-targeted NAT (single, dual)
- · Hormone receptor status (positive, negative)
- Post-NAT pathologic nodal status (positive, negative)



#### **Primary endpoint**

IDFS

#### Key secondary endpoint

DFS

#### Other secondary endpoints

- OS
- BMFI
- DRFI
- Safety

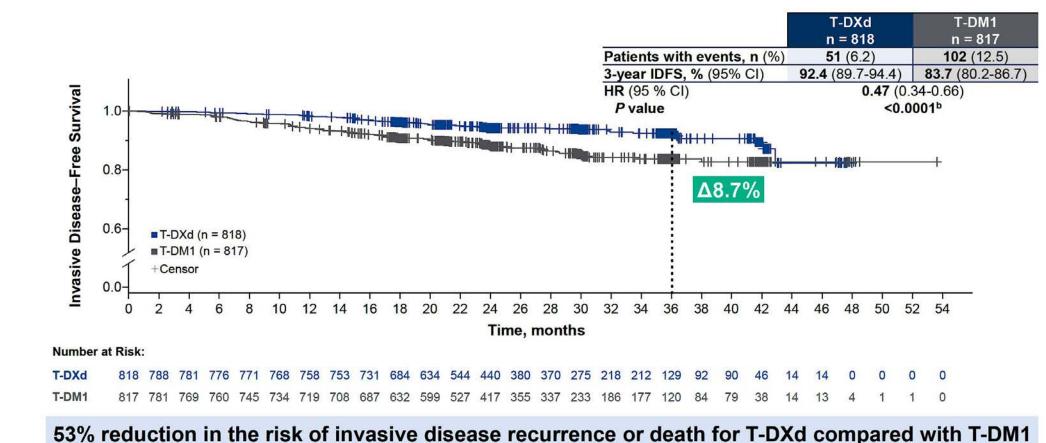
- Concomitant adjuvant ET was allowed per local practices
- If administered, RT could be initiated <u>concurrent</u> with study therapy or completed prior to initiation of study therapy (<u>sequential</u>) per investigator
- ILD monitoring program for patients treated with RT
  - · All patients had baseline non-contrast, low dose (LD) chest CT during screening
  - All RT patients (concurrent and sequential) had LD chest CT 6 weeks after start of study therapy, then every 12 weeks while on therapy, and at 40-day follow-up
  - Sequential RT patients had additional LD chest CT after completion of RT prior to start of study therapy

BMFI, brain metastasis–free interval; CT, computed tomography; eBC, early breast cancer; DCO, data cutoff; DFS, disease-free survival; DRFI, distant recurrence–free interval; ECOG PS, Eastern Cooperative Oncology Group performance status; ET, endocrine therapy; HER2, human epidermal growth factor receptor 2; IDFS, invasive disease–free survival; IHC, immunohistochemistry; ILD, interstitial lung disease; ISH, in situ hybridization; IV, intravenous; NAT, neoadjuvant therapy; OS, overall survival; Q3W, every 3 weeks; R, randomization; RT, radiotherapy; T-DM1, trastuzumab emtansine; T-DXd, trastuzumab deruxtecan.

aNAT is defined as ≥16 weeks' NAT with ≥9 weeks trastuzumab ± pertuzumab and ≥9 weeks taxane-based chemotherapy.



# Phase III DESTINY-Breast05: Primary Endpoint Invasive **Disease-Free Survival (IDFS)**



HR, hazard ratio; IDFS, invasive disease–free survival; T-DM1, trastuzumab emtansine; T-DXd, trastuzumab deruxtecan Efficacy stopping boundary, P = 0.0183.

IDFS is defined as the time from randomization until the date of first occurrence of one of the following events: recurrence of ipsilateral invasive breast tumor, recurrence of ipsilateral locoregional invasive breast cancer, contralateral invasive breast cancer, a distant disease recurrence, or death from any cause. Two-sided P value from stratified log-rank test. Hazard ratio and 95% CI from stratified Cox proportional hazards model with stratification factor of operative status at disease presentation.



## Phase III DESTINY-Breast05: Safety Summary

T-DXd	T-DM1
n = 806 <sup>a</sup>	n = 801 <sup>a</sup>
802 (99.5)	788 (98.4)
408 (50.6)	416 (51.9)
140 (17.4)	109 (13.6)
144 (17.9)	103 (12.9)
87 (10.8)	20 (2.5)
400 (49.6)	329 (41.1)
213 (26.4)	213 (26.6)
3 (0.4)	5 (0.6)
	n = 806 <sup>a</sup> 802 (99.5) 408 (50.6) 140 (17.4) 144 (17.9) 87 (10.8) 400 (49.6) 213 (26.4)

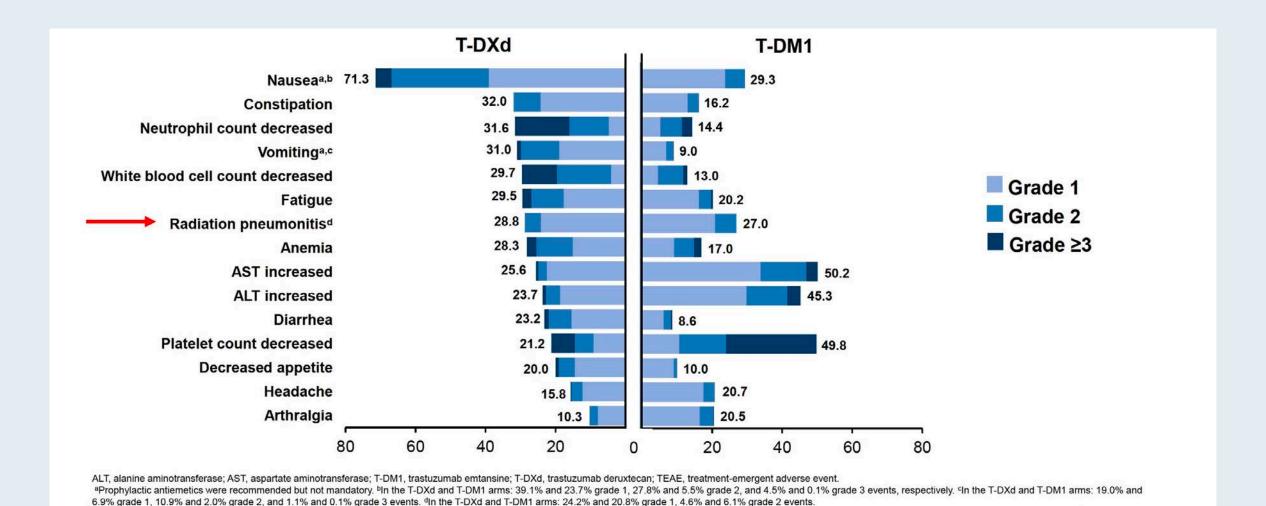
- In the T-DXd arm, causes of death (n = 3) were 2 ILD/pneumonitis<sup>c</sup> and respiratory tract infection (adjudicated as not ILD)
- In the T-DM1 arm, causes of death (n = 5) were leiomyosarcoma of the uterus, aneurysm, non-neutropenic sepsis, ovarian cancer, and traumatic pneumothorax

ILD, interstitial lung disease; T-DM1, trastuzumab emtansine; T-DXd, trastuzumab deruxtecan; TEAE, treatment-related adverse event.

<sup>a</sup>All patients who received at least 1 dose of study treatment. <sup>b</sup>Investigator-assessed as drug-related ILD and pneumonitis per preferred term. <sup>c</sup>Investigator assessed and adjudication committee confirmed.



## Phase III DESTINY-Breast05: Common Adverse Events





## Phase III DESTINY-Breast05: AEs of Special Interest

	Adjudicated Drug-related ILD					
n (%)	Any grade Grade 1 Grade 2 Grade 3 Grade 4 Grade 5					
T-DXd (n = 806) <sup>a</sup>	77 (9.6)	16 (2.0)	52 (6.5)	7 (0.9)	0	2 (0.2)
T-DM1 (n = $801$ ) <sup>a</sup>	13 (1.6)	8 (1.0)	5 (0.6)	0	0	0

#### Adjuvant radiotherapy timing (sequential or concurrent) showed no differences in adjudicated drug-related ILD

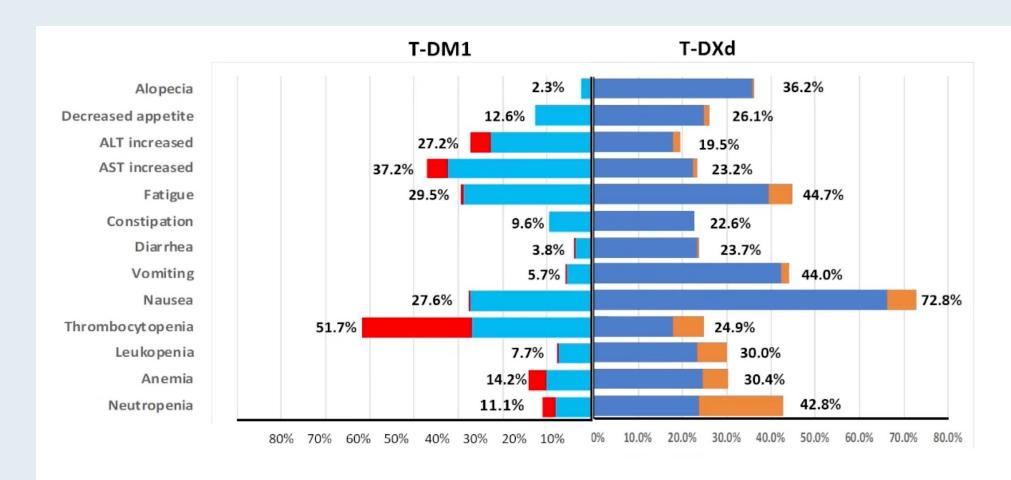
Similar distributions of any grade adjudicated drug-related ILD events were observed with sequential and concurrent radiotherapy in both treatment arms (T-DXd: 10.7% and 9.6.% vs T-DM1: 2.6% and 1.0%, respectively)

	LV dysfunction					
n (%)	Any grade Grade 1 Grade 2 Grade 3 Grade 4 Grade					
T-DXd (n = 806) <sup>a</sup>	23 (2.9)	1 (0.1)	20 (2.5)	2 (0.2)	0	0
T-DM1 (n = 801) <sup>a</sup>	14 (1.7)	0	11 (1.4)	3 (0.4)	0	0

CT, computed tomography; ILD, interstitial lung disease; LV, left ventricular; T-DM1, trastuzumab emtansine; T-DXd, trastuzumab deruxtecan. 
<sup>a</sup>All patients who received at least 1 dose of study treatment.



# Safety of T-DXd versus T-DM1





#### **Abstract 2910**





DESTINY-Breast11: neoadjuvant trastuzumab deruxtecan alone or followed by paclitaxel + trastuzumab + pertuzumab vs ddAC-THP for high-risk HER2+ early breast cancer

#### **Nadia Harbeck**

Breast Center, Department of OB&GYN and CCC Munich, LMU University Hospital, Munich, Germany

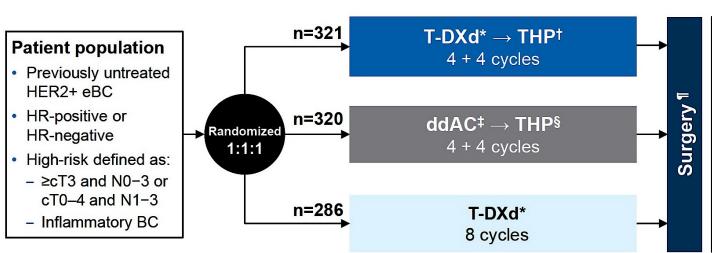
Co-authors: Shanu Modi, Lajos Pusztai, Shinji Ohno, Jiong Wu, Sung-Bae Kim, Alessandra Fabi, Xuchen Cao, Rona Joseph, Rubi Li, Bogdan Żurawski, Santiago Escrivá-de-Romaní, Shin-Cheh Chen, Catherine Kelly, Giuseppe Curigliano, William Fraser Symmans, Shoubhik Mondal, Shahana Safdar, Pia Herbolsheimer, Jean-François Boileau On behalf of the DESTINY-Breast11 investigators

Saturday October 18, 2025 Presentation 2910





# Phase III DESTINY-Breast11 Study Design



# Recommended post-neoadjuvant treatment per study protocol

pCR: radiotherapy and concomitant trastuzumab ± pertuzumab for up to 1 year

**No pCR:** radiotherapy and T-DM1 for up to 14 cycles

**HR-positive**: endocrine therapy

Primary endpointpCR (ypT0/is ypN0) by blinded

## central review

Data cutoff: March 12, 2025

#### **Secondary endpoints**

- pCR (ypT0 ypN0) by blinded central review
- EFS
- Safety
- Pharmacokinetics and immunogenicity
- Invasive disease-free survival
- Overall survival
- · Health-related quality of life

# Additional outcome measures

Residual cancer burden (RCB)

#### **Stratification factors**

- HR status: ER and/or PR-positive or negative
- HER2 status: (IHC 3+ or ISH+ in the absence of IHC 3+ status)

The T-DXd alone arm closed on March 13 2024, following Independent Data Monitoring Committee recommendation

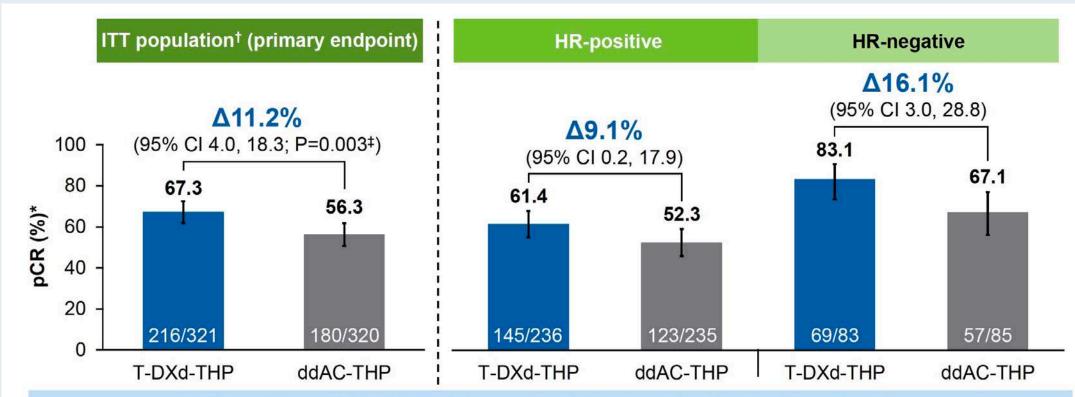
The reasons were multifactorial, including a lower pCR rate, low likelihood that T-DXd alone would be superior to ddAC-THP, and the timing of surgery

High-resolution computed tomography chest scans were performed every 6 weeks during treatment; if ILD/pneumonitis was suspected while receiving T-DXd, treatment was interrupted and a full investigation completed. Echocardiograms or multigated acquisition scans were performed during screening (<28 days prior to randomization), during treatment (<3 days before Cycle 5), and at end of treatment to assess left ventricular ejection fraction. \*5.4 mg/kg Q3W); †paclitaxel (80 mg/m² QW) + treatuzumab (8 mg/kg Q3W) + pertuzumab (800 mg/m² QW)) + pertuzumab (800 mg/m² QW)); \*paclitaxel (80 mg/

ddAC = dose-dense doxorubicin and cyclophosphamide; THP = paclitaxel, trastuzumab and pertuzumab



## Phase III DESTINY-Breast11: Primary Endpoint pCR



Neoadjuvant T-DXd-THP demonstrated a statistically significant and clinically meaningful improvement in pCR vs ddAC-THP Improvement was observed in both the HR-positive and HR-negative subgroups

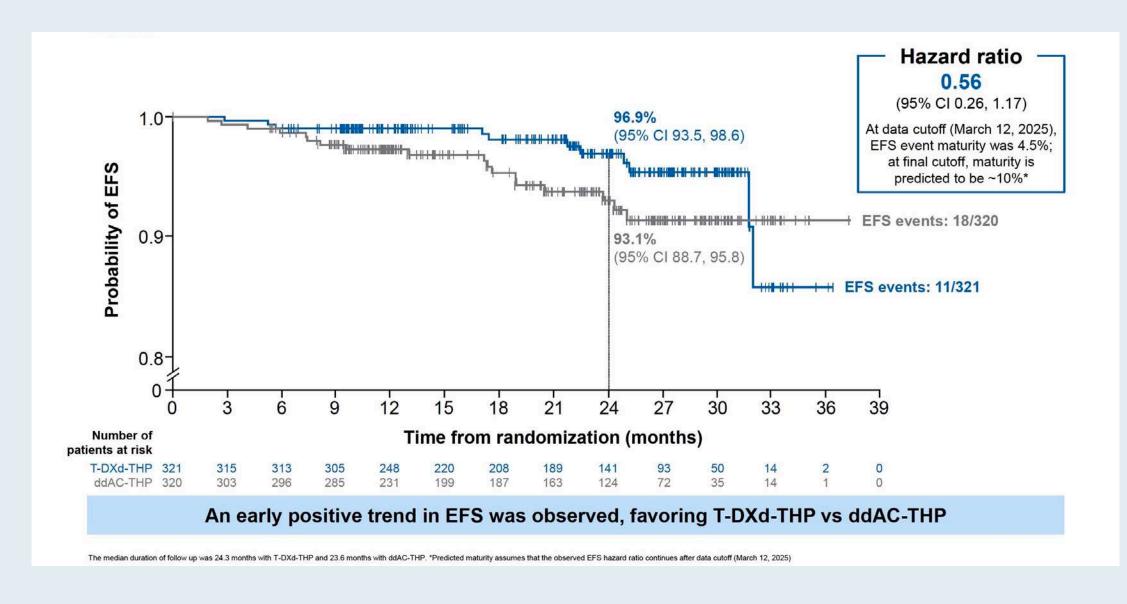
For the ITT population, treatment effects were estimated by the difference in pCR with 95% CIs and P-values based on the stratified Miettinen and Nurminen's method, with strata weighting by sample size (ie Mantel-Haenszel weights)

Patients with no valid records regarding pCR status for any reason were considered to be non-responders (including but not limited to withdrawal from the study, progression of disease or death before surgery, lack of surgical specimen, or defined as not evaluable by the central pathologist). Subgroup analyses were unstratified. \*By blinded central review; ¹pCR responders were defined as patients who only received randomized study treatment (at least one dose) and had pCR; ⁴two-sided P-value crossed the 0.03 prespecified boundary. ITT, intent-to-treat

pCR = pathological complete response



# Phase III DESTINY-Breast11: Event-Free Survival (EFS)





## Phase III DESTINY-Breast11: Overall Safety Summary

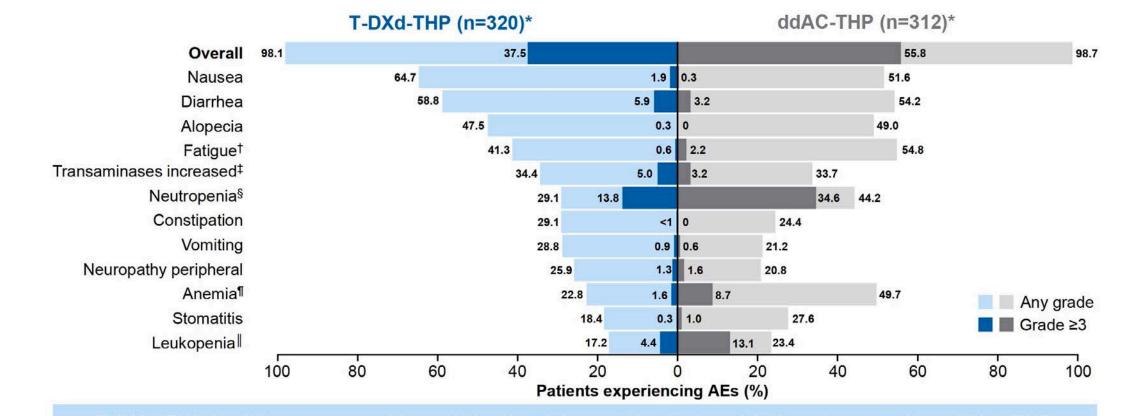
n (%)	T-DXd-THP (n=320)*	ddAC-THP (n=312)*
Any AE	314 (98.1)	308 (98.7)
Grade ≥3	120 (37.5)	174 (55.8)
Any serious AE	34 (10.6)	63 (20.2)
AE leading to any dose reduction	58 (18.1)	60 (19.2)
AE leading to any drug interruption	121 (37.8)	170 (54.5)
AE leading to any treatment discontinuation	45 (14.1)	31 (9.9)
Any AE with outcome of death <sup>†</sup>	2 (0.6)	2 (0.6)
AE of special interest		
Drug-related adjudicated ILD/pneumonitis	14 (4.4)	16 (5.1)
Grade ≥3	2 (0.6)	6 (1.9)
Grade 5	1 (0.3)	1 (0.3)
Left ventricular dysfunction	4 (1.3)	19 (6.1)
Grade ≥3	1 (0.3)	6 (1.9)
Grade 5	0	0
AE leading to surgical delay <sup>‡</sup>	11 (3.4)	8 (2.6)

The overall safety profile of T-DXd-THP was favorable vs ddAC-THP, with reduced rates of Grade ≥3 AEs, serious AEs, treatment interruptions, and left ventricular dysfunction ILD incidence was low and similar in both arms

High-resolution computed tomography chest scans were performed every 6 weeks during treatment; if ILD/pneumonitis was suspected while receiving T-DXd, treatment was interrupted and a full investigation completed. Echocardiograms or multigated acquisition scans were performed during screening (<28 days prior to randomization), during treatment (<3 days before Cycle 5), and at end of treatment to assess left ventricular ejection fraction. Median total treatment duration of whole regimen was 24.1 months (rdAC-THP), and 21.0 months (rdAC-THP). "Safety analyses included all patients who received at least one dose of any study treatment; 'T-DXd-THP arm: death of unknown cause (n=1), drug-related by the ILD Adjudication Committee (n=1); 'defined as surgery not occurring within 3-6 weeks after the last cycle of neoadjuvant treatment.



## Phase III DESTINY-Breast11: Common Adverse Events



T-DXd-THP had fewer any-grade and Grade ≥3 hematological and fatigue events than ddAC-THP Aside from nausea, gastrointestinal toxicity was comparable between arms

\*Safety analyses included all patients who received at least one dose of any study treatment; †grouped term: fatigue, asthenia, malaise, and lethargy; †grouped term: transaminases increased, alanine transaminase increased, alanine transaminase increased, alanine transaminase increased, gamma-glutamyl transferase increased, liver function test abnormal, hypertransaminasemia, hepatic function abnormal, and liver function test increased; †grouped term: neutrophil count decreased and neutropenia; †grouped term: hemoglobin decreased, red blood cell count decreased, and anemia and hematocrit decreased; †grouped term: white blood cell count decreased and leukopenia. TEAE, treatment-emergent adverse event



## Efficacy and Safety of Neoadjuvant Trastuzumab Deruxtecan versus Standard of Care Chemotherapy plus Trastuzumab plus Pertuzumab in HER2+ Early Breast Cancer: WSG-ADAPT-HER2-IV

Harbeck N et al.

San Antonio Breast Cancer Symposium 2025; Abstract GS1-02.



#### **Agenda**

Introduction

Overview: Molecular basis of antibody-drug conjugate (ADC) toxicities — Sequencing of ADCs and mechanisms of resistance

Case 1 Dr Zelkowitz – 68-year-old woman

■ Data Review: TROP2-targeted ADCs (sacituzumab govitecan, Dato-DXd, sac TMT)

Case 2 Dr Gupta – 74-year-old woman

Case 3 Dr Agrawal – 83-year-old woman

Case 4 Dr Favaro – 70-year-old woman

■ Data Review: Trastuzumab deruxtecan

Case 5 Dr Rupard – 78-year-old woman

Case 6 Dr Ku – 72-year-old woman

■ Data Review: Other HER2-targeted agents



# Case Presentation: 78-year-old woman with ER+, HER2-low mBC with disease progression after 1 year of ribociclib/letrozole then receives sacituzumab govitecan



Dr Erik Rupard (Reading, Pennsylvania)



#### **Agenda**

Overview: Molecular basis of antibody-drug conjugate (ADC) toxicities — Sequencing of ADCs and mechanisms of resistance

Case 1 Dr Zelkowitz – 68-year-old woman

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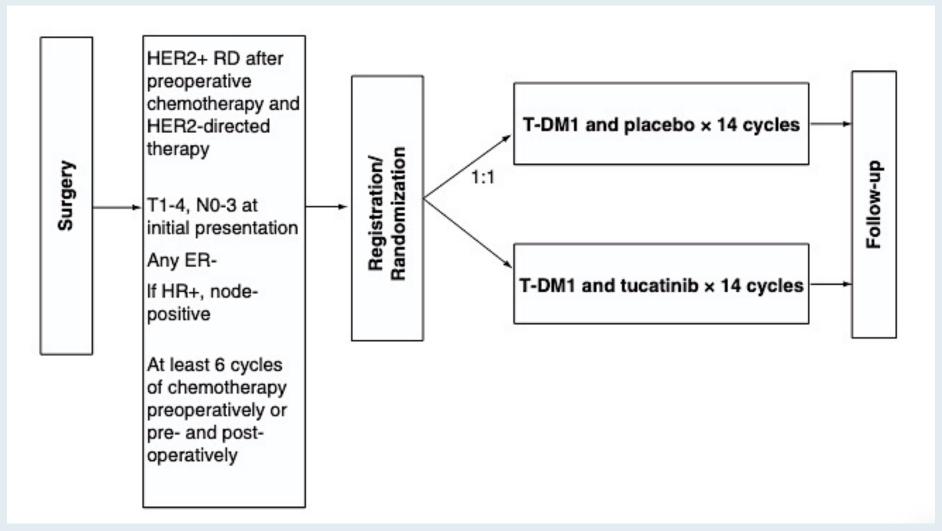
Case Presentation: 72-year-old woman with recurrent ER+, HER2-low (IHC 1+) mBC receives T-DXd and has concerning pulmonary symptoms but without diagnostic imaging findings

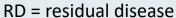


Dr Kimberly Ku (Bloomington, Illinois)



#### CompassHER2 RD (A011801) Phase III Trial Design







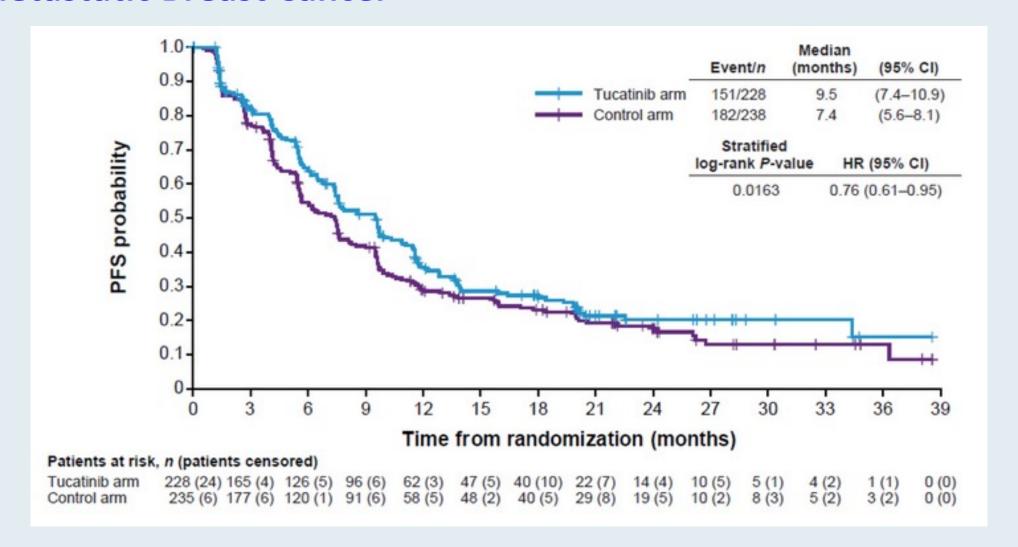
Tucatinib and Trastuzumab Emtansine for Patients with Previously Treated HER2-Positive Locally Advanced and Metastatic Breast Cancer: Primary Analysis of the Randomized Phase III Trial HER2CLIMB-02

Hurvitz S et al.

Ann Oncology 2025. November 17 (Article in Press)



## HER2CLIMB-02 Primary Analysis: PFS with Tucatinib and T-DM1 for Previously Treated HER2-Positive Locally Advanced and Metastatic Breast Cancer





#### **HER2CLIMB-02 Safety Summary**

Events, n (%)	Tucatinib arm $(n = 231)$	Control arm ( <i>n</i> = 233)
Any TEAE	230 (99.6)	233 (100)
Grade ≥3 TEAE	159 (68.8)	96 (41.2)
Any TESAE	70 (30.3)	52 (22.3)
TEAE leading to death	3 (1.3)	2 (0.9)
Patients who discontinued any treatment due to TEAE	51 (22.1)	27 (11.6)
Discontinued tucatinib or placebo due to TEAE	40 (17.3)	16 (6.9)
Discontinued T-DM1 due to TEAE	47 (20.3)	26 (11.2)

TEAE, treatment-emergent adverse event; TESAE, treatment-emergent serious adverse event; T-DM1, trastuzumab emtansine.



## Her2climb-05: A Randomized, Double-Blind, Phase 3 Study of Tucatinib versus Placebo in Combination with Trastuzumab and Pertuzumab as Maintenance Therapy for Her2+ Metastatic Breast Cancer

Hamilton E et al.

San Antonio Breast Cancer Symposium 2025; Abstract GS1-01.



#### **Contributing General Medical Oncologists**



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Brooklyn, New York



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Reading, Pennsylvania



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Oncology Specialists of Charlotte
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Richard Zelkowitz, MD
Hartford HealthCare Cancer Institute
Bridgeport, Connecticut



Ranju Gupta, MD Lehigh Valley Topper Cancer Institute Bethlehem, Pennsylvania



#### **Exciting CME Events You Do Not Want to Miss**

A Friday Satellite Symposium Series Preceding the 67th ASH Annual Meeting

#### Friday, December 5, 2025

Acute Myeloid Leukemia 7:30 AM – 9:30 AM ET Myelofibrosis and Systemic Mastocytosis 3:15 PM – 5:15 PM ET

Chronic Lymphocytic Leukemia 11:30 AM – 1:30 PM ET Follicular Lymphoma and Diffuse Large B-Cell Lymphoma 7:00 PM – 9:00 PM ET



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The survey will remain open for 5 minutes after the meeting ends.

Information on how to obtain CME, ABIM MOC and ABS credit is provided in the Zoom chat room. Attendees will also receive an email in 1 to 3 business days with these instructions.

