Inside the Issue: Integrating Antibody-Drug Conjugates into the Management of HR-Positive and Triple-Negative Metastatic Breast Cancer

A CME/MOC-Accredited Live Webinar

Wednesday, July 17, 2024 5:00 PM – 6:00 PM ET

Faculty Professor Peter Schmid, FRCP, MD, PhD Sara M Tolaney, MD, MPH



Faculty



Professor Peter Schmid, FRCP, MD, PhD Lead, Centre of Experimental Cancer Medicine Barts Cancer Institute London, United Kingdom



MODERATOR

Neil Love, MD Research To Practice Miami, Florida



Sara M Tolaney, MD, MPH

Chief, Division of Breast Oncology Associate Director, Susan F Smith Center for Women's Cancers Senior Physician Dana-Farber Cancer Institute Associate Professor of Medicine Harvard Medical School Boston, Massachusetts



Survey Participants



Adam M Brufsky, MD, PhD Professor of Medicine

UPMC Hillman Cancer Center Department of Medicine University of Pittsburgh Pittsburgh, Pennsylvania



Komal Jhaveri, MD, FACP

Patricia and James Cayne Chair for Junior Faculty Associate Attending Physician Breast Medicine Service and Early Drug Development Service Section Head, Endocrine Therapy Research Program Clinical Director, Early Drug Development Service Department of Medicine Memorial Sloan Kettering Cancer Center Associate Professor of Medicine Weill Cornell College of Medicine New York, New York



Harold J Burstein, MD, PhD Institute Physician Dana-Farber Cancer Institute Professor of Medicine Harvard Medical School Boston, Massachusetts



Laura Spring, MD Breast Oncologist Massachusetts General Hospital Cancer Center Harvard Medical School Boston, Massachusetts



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: AbbVie Inc, Adaptive Biotechnologies Corporation, ADC Therapeutics, Agios Pharmaceuticals Inc, Alexion Pharmaceuticals, Amgen Inc, Array BioPharma Inc, a subsidiary of Pfizer Inc, Astellas, AstraZeneca Pharmaceuticals LP, Aveo Pharmaceuticals, Bayer HealthCare Pharmaceuticals, BeiGene Ltd, BeyondSpring Pharmaceuticals Inc, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol Myers Squibb, Celgene Corporation, Clovis Oncology, Coherus BioSciences, CTI BioPharma, a Sobi Company, Daiichi Sankyo Inc, Eisai Inc, Elevation Oncology Inc, EMD Serono Inc, Epizyme Inc, Exact Sciences Corporation, Exelixis Inc, Five Prime Therapeutics Inc, Foundation Medicine, G1 Therapeutics Inc, Genentech, a member of the Roche Group, Genmab US Inc, Gilead Sciences Inc, Grail Inc, GSK, 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, Kronos Bio Inc, Legend Biotech, Lilly, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, 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, Oncopeptides, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, R-Pharm US, Sanofi, Seagen Inc, Servier Pharmaceuticals LLC, SpringWorks Therapeutics Inc, Stemline Therapeutics Inc, Sumitomo Dainippon Pharma Oncology Inc, Syndax Pharmaceuticals, Taiho Oncology Inc, Takeda Pharmaceuticals USA Inc, TerSera Therapeutics LLC, Tesaro, A GSK Company, TG Therapeutics Inc, Turning Point Therapeutics Inc, Verastem Inc, and Zymeworks Inc.



Research To Practice CME Planning Committee Members, Staff and Reviewers

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



Prof Schmid — Disclosures Faculty

Consulting Agreements	AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Boehringer Ingelheim Pharmaceuticals Inc, Celgene Corporation, Daiichi Sankyo Inc, Eisai Inc, Gilead Sciences Inc, Lilly, Merck, Novartis, Pfizer Inc, Puma Biotechnology Inc, Roche Laboratories Inc
Contracted Research	Astellas, AstraZeneca Pharmaceuticals LP, Genentech, a member of the Roche Group, Medivation Inc, a Pfizer Company, Novartis, OncoGenex Pharmaceuticals Inc, Roche Laboratories Inc



Dr Tolaney — Disclosures Faculty

Consulting Agreements	Aadi Bioscience, Artios Pharma Limited, Arvinas, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, BioNTech SE, Blueprint Medicines, Bristol Myers Squibb, Circle Pharma, Cullinan Therapeutics, CytomX Therapeutics, Daiichi Sankyo Inc, eFFECTOR Therapeutics Inc, Eisai Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Hengrui Therapeutics Inc, Incyte Corporation, Jazz Pharmaceuticals Inc, Lilly, Menarini Group, Merck, Natera Inc, Novartis, Pfizer Inc, Reveal Genomics, Sanofi, Seagen Inc, Stemline Therapeutics Inc, Sumitovant Biopharma, SystImmune Inc, Tango Therapeutics, Umoja Biopharma, Zentalis Pharmaceuticals, Zymeworks Inc
Contracted Research	AstraZeneca Pharmaceuticals LP, Bristol Myers Squibb, Daiichi Sankyo Inc, Eisai Inc, Exelixis Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Lilly, Menarini Group, Merck, NanoString Technologies, Novartis, OncoPep, Pfizer Inc, Seagen Inc, Stemline Therapeutics Inc
Travel Support	BioNTech SE, Gilead Sciences Inc, Jazz Pharmaceuticals Inc, Lilly, Pfizer Inc, Sanofi



Dr Brufsky — Disclosures Survey Participant

Consulting Agreements	Agendia Inc, AstraZeneca Pharmaceuticals LP, BriaCell, Daiichi Sankyo Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Jazz Pharmaceuticals Inc, Lilly, Merck, Myriad Genetic Laboratories Inc, Natera Inc, Novartis, Pfizer Inc, Puma Biotechnology Inc, Sanofi
-----------------------	--



Dr Burstein — Disclosures Survey Participant

No relevant conflicts of interest to disclose.



Dr Jhaveri — Disclosures Survey Participant

Advisory Committees and Consulting Agreements	AbbVie Inc, AstraZeneca Pharmaceuticals LP, Blueprint Medicines, Bristol Myers Squibb, Daiichi Sankyo Inc, Eisai Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Jounce Therapeutics, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Menarini Group, Novartis, Olema Oncology, Pfizer Inc, Scorpion Therapeutics, Seagen Inc, Stemline Therapeutics Inc, Sun Pharma Advanced Research Company, Taiho Oncology Inc
Contracted Research	AstraZeneca Pharmaceuticals LP, Debiopharm, Genentech, a member of the Roche Group, Gilead Sciences Inc, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Merck, Novartis, Pfizer Inc, Puma Biotechnology Inc, Scorpion Therapeutics, Zymeworks Inc



Dr Spring — Disclosures Survey Participant

Advisory Committee	AstraZeneca Pharmaceuticals LP
Consulting Agreements	AstraZeneca Pharmaceuticals LP, Daiichi Sankyo Inc, Lilly, Novartis, Precede Biosciences, Seagen Inc
Contracted Research	AstraZeneca Pharmaceuticals LP, Genentech, a member of the Roche Group, Gilead Sciences Inc, Lilly, Merck
Nonrelevant Financial Relationship	Main Street Health



This educational activity contains discussion of non-FDA-approved uses of agents and regimens. Please refer to official prescribing information for each product for approved indications.



We Encourage Clinicians in Practice to Submit Questions



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



Familiarizing Yourself with the Zoom Interface

Expand chat submission box



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



Familiarizing Yourself with the Zoom Interface

Increase chat font size



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



Clinicians in the Audience, Please Complete the Pre- and Postmeeting Surveys





ONCOLOGY TODAY

WITH DR NEIL LOVE

What Clinicians Want to Know About the Management of Triple-Negative Breast Cancer



DR KEVIN KALINSKY

WINSHIP CANCER INSTITUTE OF EMORY UNIVERSITY



DR HEATHER MCARTHUR UT SOUTHWESTERN MEDICAL CENTER

6:44 🔊 ONCOLOGY ΟΠΑΥ WITH DR NEIL LOVE 0:04 -13:18

Dr Kevin Kalinsky and Dr Heather McA Oncology Today with Dr Neil Love —

(30)

(15)







Inside the Issue: Integrating ALK-Targeted Therapy into the Management of Localized Non-Small Cell Lung Cancer

A CME/MOC-Accredited Live Webinar

Thursday, July 18, 2024 5:00 PM – 6:00 PM ET

Faculty

Professor Solange Peters, MD, PhD Professor Ben Solomon, MBBS, PhD



Inside the Issue: Integrating HER2-Targeted Strategies into the Management of Gastrointestinal Cancers

A CME/MOC-Accredited Live Webinar

Wednesday, August 21, 2024 5:00 PM – 6:00 PM ET

> Faculty Tanios Bekaii-Saab, MD John Strickler, MD



Inside the Issue: Optimizing the Diagnosis and Treatment of Neuroendocrine Tumors

A CME/MOC-Accredited Live Webinar

Thursday, August 29, 2024 5:00 PM – 6:00 PM ET

Faculty Pamela Kunz, MD Simron Singh, MD, MPH



Data + Perspectives: Clinical Investigators Discuss the Role of CAR T-Cell Therapy for Patients with Non-Hodgkin Lymphoma and Chronic Lymphocytic Leukemia

> Part 1 of a 2-Part CME Satellite Symposium Series During the Society of Hematologic Oncology 2024 Annual Meeting

> > Wednesday, September 4, 2024 11:46 AM – 12:46 PM CT

Faculty Jason Westin, MD, MS *Additional faculty to be announced.*

Moderator Matthew Lunning, DO



Data + Perspectives: Clinical Investigators Discuss the Current and Future Management of Diffuse Large B-Cell Lymphoma

Part 2 of a 2-Part CME Satellite Symposium Series During the Society of Hematologic Oncology 2024 Annual Meeting

> Wednesday, September 4, 2024 7:30 PM – 8:30 PM CT

Faculty Grzegorz S Nowakowski, MD Laurie H Sehn, MD, MPH

Moderator Christopher R Flowers, MD, MS



Thank you for joining us!

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



Inside the Issue: Integrating Antibody-Drug Conjugates into the Management of HR-Positive and Triple-Negative Metastatic Breast Cancer

A CME/MOC-Accredited Live Webinar

Wednesday, July 17, 2024 5:00 PM – 6:00 PM ET

Faculty Professor Peter Schmid, FRCP, MD, PhD Sara M Tolaney, MD, MPH



Faculty



Professor Peter Schmid, FRCP, MD, PhD Lead, Centre of Experimental Cancer Medicine Barts Cancer Institute London, United Kingdom



MODERATOR

Neil Love, MD Research To Practice Miami, Florida



Sara M Tolaney, MD, MPH

Chief, Division of Breast Oncology Associate Director, Susan F Smith Center for Women's Cancers Senior Physician Dana-Farber Cancer Institute Associate Professor of Medicine Harvard Medical School Boston, Massachusetts



Survey Participants



Adam M Brufsky, MD, PhD Professor of Medicine

UPMC Hillman Cancer Center Department of Medicine University of Pittsburgh Pittsburgh, Pennsylvania



Komal Jhaveri, MD, FACP

Patricia and James Cayne Chair for Junior Faculty Associate Attending Physician Breast Medicine Service and Early Drug Development Service Section Head, Endocrine Therapy Research Program Clinical Director, Early Drug Development Service Department of Medicine Memorial Sloan Kettering Cancer Center Associate Professor of Medicine Weill Cornell College of Medicine New York, New York



Harold J Burstein, MD, PhD Institute Physician Dana-Farber Cancer Institute Professor of Medicine Harvard Medical School Boston, Massachusetts



Laura Spring, MD Breast Oncologist Massachusetts General Hospital Cancer Center Harvard Medical School Boston, Massachusetts



We Encourage Clinicians in Practice to Submit Questions



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



Clinicians in the Audience, Please Complete the Pre- and Postmeeting Surveys





ONCOLOGY TODAY

WITH DR NEIL LOVE

What Clinicians Want to Know About the Management of Triple-Negative Breast Cancer



DR KEVIN KALINSKY

WINSHIP CANCER INSTITUTE OF EMORY UNIVERSITY



DR HEATHER MCARTHUR UT SOUTHWESTERN MEDICAL CENTER

6:44 🔊 ONCOLOGY ΟΠΑΥ WITH DR NEIL LOVE 0:04 -13:18

Dr Kevin Kalinsky and Dr Heather McA Oncology Today with Dr Neil Love —

(30)

(15)







Inside the Issue: Integrating ALK-Targeted Therapy into the Management of Localized Non-Small Cell Lung Cancer

A CME/MOC-Accredited Live Webinar

Thursday, July 18, 2024 5:00 PM – 6:00 PM ET

Faculty

Professor Solange Peters, MD, PhD Professor Ben Solomon, MBBS, PhD



Inside the Issue: Integrating HER2-Targeted Strategies into the Management of Gastrointestinal Cancers

A CME/MOC-Accredited Live Webinar

Wednesday, August 21, 2024 5:00 PM – 6:00 PM ET

> Faculty Tanios Bekaii-Saab, MD John Strickler, MD



Inside the Issue: Optimizing the Diagnosis and Treatment of Neuroendocrine Tumors

A CME/MOC-Accredited Live Webinar

Thursday, August 29, 2024 5:00 PM – 6:00 PM ET

Faculty Pamela Kunz, MD Simron Singh, MD, MPH



Data + Perspectives: Clinical Investigators Discuss the Role of CAR T-Cell Therapy for Patients with Non-Hodgkin Lymphoma and Chronic Lymphocytic Leukemia

> Part 1 of a 2-Part CME Satellite Symposium Series During the Society of Hematologic Oncology 2024 Annual Meeting

> > Wednesday, September 4, 2024 11:46 AM – 12:46 PM CT

Faculty Jason Westin, MD, MS *Additional faculty to be announced.*

Moderator Matthew Lunning, DO



Data + Perspectives: Clinical Investigators Discuss the Current and Future Management of Diffuse Large B-Cell Lymphoma

Part 2 of a 2-Part CME Satellite Symposium Series During the Society of Hematologic Oncology 2024 Annual Meeting

> Wednesday, September 4, 2024 7:30 PM – 8:30 PM CT

Faculty Grzegorz S Nowakowski, MD Laurie H Sehn, MD, MPH

Moderator Christopher R Flowers, MD, MS



Inside the Issue: Integrating Antibody-Drug Conjugates into the Management of HR-Positive and Triple-Negative Metastatic Breast Cancer

A CME/MOC-Accredited Live Webinar

Wednesday, July 17, 2024 5:00 PM – 6:00 PM ET

Faculty Professor Peter Schmid, FRCP, MD, PhD Sara M Tolaney, MD, MPH


Prof Schmid — Disclosures Faculty

Consulting Agreements	AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Boehringer Ingelheim Pharmaceuticals Inc, Celgene Corporation, Daiichi Sankyo Inc, Eisai Inc, Gilead Sciences Inc, Lilly, Merck, Novartis, Pfizer Inc, Puma Biotechnology Inc, Roche Laboratories Inc
Contracted Research	Astellas, AstraZeneca Pharmaceuticals LP, Genentech, a member of the Roche Group, Medivation Inc, a Pfizer Company, Novartis, OncoGenex Pharmaceuticals Inc, Roche Laboratories Inc



Dr Tolaney — Disclosures Faculty

Consulting Agreements	Aadi Bioscience, Artios Pharma Limited, Arvinas, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, BioNTech SE, Blueprint Medicines, Bristol Myers Squibb, Circle Pharma, Cullinan Therapeutics, CytomX Therapeutics, Daiichi Sankyo Inc, eFFECTOR Therapeutics Inc, Eisai Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Hengrui Therapeutics Inc, Incyte Corporation, Jazz Pharmaceuticals Inc, Lilly, Menarini Group, Merck, Natera Inc, Novartis, Pfizer Inc, Reveal Genomics, Sanofi, Seagen Inc, Stemline Therapeutics Inc, Sumitovant Biopharma, SystImmune Inc, Tango Therapeutics, Umoja Biopharma, Zentalis Pharmaceuticals, Zymeworks Inc	
Contracted Research Merck, NanoString Technologies, Novartis, OncoPep, Pfizer Inc, Seagen Inc, St Therapeutics Inc		
Travel Support	BioNTech SE, Gilead Sciences Inc, Jazz Pharmaceuticals Inc, Lilly, Pfizer Inc, Sanofi	



Dr Brufsky — Disclosures Survey Participant

Consulting Agreements	Agendia Inc, AstraZeneca Pharmaceuticals LP, BriaCell, Daiichi Sankyo Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Jazz Pharmaceuticals Inc, Lilly, Merck, Myriad Genetic Laboratories Inc, Natera Inc, Novartis, Pfizer Inc, Puma Biotechnology Inc, Sanofi
-----------------------	--



Dr Burstein — Disclosures Survey Participant

No relevant conflicts of interest to disclose.



Dr Jhaveri — Disclosures Survey Participant

Advisory Committees and Consulting Agreements	AbbVie Inc, AstraZeneca Pharmaceuticals LP, Blueprint Medicines, Bristol Myers Squibb, Daiichi Sankyo Inc, Eisai Inc, Genentech, a member of the Roche Group, Gilead Sciences Inc, Jounce Therapeutics, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Menarini Group, Novartis, Olema Oncology, Pfizer Inc, Scorpion Therapeutics, Seagen Inc, Stemline Therapeutics Inc, Sun Pharma Advanced Research Company, Taiho Oncology Inc
Contracted Research	AstraZeneca Pharmaceuticals LP, Debiopharm, Genentech, a member of the Roche Group, Gilead Sciences Inc, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Merck, Novartis, Pfizer Inc, Puma Biotechnology Inc, Scorpion Therapeutics, Zymeworks Inc



Dr Spring — Disclosures Survey Participant

Advisory Committee	AstraZeneca Pharmaceuticals LP
Consulting Agreements	AstraZeneca Pharmaceuticals LP, Daiichi Sankyo Inc, Lilly, Novartis, Precede Biosciences, Seagen Inc
Contracted Research	AstraZeneca Pharmaceuticals LP, Genentech, a member of the Roche Group, Gilead Sciences Inc, Lilly, Merck
Nonrelevant Financial Relationship	Main Street Health



Dr Love — Disclosures

Dr Love is president and CEO of Research To Practice. Research To Practice receives funds in the form of educational grants to develop CME activities from the following companies: AbbVie Inc, Adaptive Biotechnologies Corporation, ADC Therapeutics, Agios Pharmaceuticals Inc, Alexion Pharmaceuticals, Amgen Inc, Array BioPharma Inc, a subsidiary of Pfizer Inc, Astellas, AstraZeneca Pharmaceuticals LP, Aveo Pharmaceuticals, Bayer HealthCare Pharmaceuticals, BeiGene Ltd, BeyondSpring Pharmaceuticals Inc, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol Myers Squibb, Celgene Corporation, Clovis Oncology, Coherus BioSciences, CTI BioPharma, a Sobi Company, Daiichi Sankyo Inc, Eisai Inc, Elevation Oncology Inc, EMD Serono Inc, Epizyme Inc, Exact Sciences Corporation, Exelixis Inc, Five Prime Therapeutics Inc, Foundation Medicine, G1 Therapeutics Inc, Genentech, a member of the Roche Group, Genmab US Inc, Gilead Sciences Inc, Grail Inc, GSK, 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, Kronos Bio Inc, Legend Biotech, Lilly, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, 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, Oncopeptides, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, R-Pharm US, Sanofi, Seagen Inc, Servier Pharmaceuticals LLC, SpringWorks Therapeutics Inc, Stemline Therapeutics Inc, Sumitomo Dainippon Pharma Oncology Inc, Syndax Pharmaceuticals, Taiho Oncology Inc, Takeda Pharmaceuticals USA Inc, TerSera Therapeutics LLC, Tesaro, A GSK Company, TG Therapeutics Inc, Turning Point Therapeutics Inc, Verastem Inc, and Zymeworks Inc.



Commercial Support

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

Research To Practice CME Planning Committee Members, Staff and Reviewers

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



This educational activity contains discussion of non-FDA-approved uses of agents and regimens. Please refer to official prescribing information for each product for approved indications.



Expanding Role of TROP2-Directed Antibody-Drug Conjugates (ADCs) in Metastatic Breast Cancer (mBC) Management

Sara M Tolaney, MD, MPH

Chief, Division of Breast Oncology Associate Director, Susan F Smith Center for Women's Cancers Senior Physician Dana-Farber Cancer Institute Associate Professor of Medicine Harvard Medical School Boston, Massachusetts

Non-Trop-2 targeting ADCs in metastatic breast cancer

Professor Peter Schmid, MD PhD FRCP

Lead, Centre for Experimental Cancer Medicine Barts Cancer Institute, St Bartholomew's Hospital Queen Mary University of London





Barts Health



Agenda

Introduction: Pharmacology and Sequencing of Antibody-Drug Conjugates (ADCs) in Metastatic Breast Cancer (mBC)

Module 1: Expanding Role of TROP2-Directed ADCs in mBC Management — Dr Tolaney

Module 2: Other Targets for ADC Therapy in mBC — Prof Schmid



Agenda

Introduction: Pharmacology and Sequencing of Antibody-Drug Conjugates (ADCs) in Metastatic Breast Cancer (mBC)

Module 1: Expanding Role of TROP2-Directed ADCs in mBC Management — Dr Tolaney

Module 2: Other Targets for ADC Therapy in mBC — Prof Schmid



Antibody–Drug Conjugates (ADCs) Selective Delivery of Toxic Payload



New antibody-drug conjugates



Courtesy of Professor Peter Schmid, FRCP, MD, PhD

Development of Antibody–Drug Conjugates

1st Generation Eg Gemtuzumab	2nd Generation T-DM1	3rd Generation Sacituzumab, T-DXd	Next Generation?
 Mouse/chimeric MAB Low potency payload Random conjugation Non-cleavable Linker (unstable) Uncontrollable DAR 	 Humanised MABs (IgG1) Moderate potency payload Random conjugation Increased DAR Stable non-cleavable Linker 	 Better MABs, Fab-fragments More potent payloads Site-specific conjugation Consistent, high DAR Cleavable Linker Bystander Effect 	 Fab-fragments? Bispecifics? Fc silencing Probody-DCs: AG-masking Site-specific conjugation Different payload Combination of payloads
1980 1990 200	0 2010 20	015 2020	
 Pros/Contras Heterogeneity Low efficacy Narrow therapeutic index Off-target effects High immunogenicity 	 Pros/Contras Improved targeting More potent payload Lower immunogenicity Heterogeneity Fast clearance for high DARs Off-target effects (early release) Drug resistance 	 Pros/Contras Higher efficacy, even with lower antigen expression More potent payload Less off-target toxicity 	Innovations in the antibody molety Substrate Informed Protease Innovations in the payload Fc stencing

Schmid P, Personal Communication

Courtesy of Professor Peter Schmid, FRCP, MD, PhD

Chau, et al, Lancet 2019; Fu, et al, Signal Transduction Targeted Therapy 2022, Tarantino et al, Nat Rev Clin Oncol 2023

Target Expression and ADC activity



Targets for Antibody-Drug Conjugates in Breast Cancer



Targets for Antibody-Drug Conjugates in Breast Cancer



Courtesy of Professor Peter Schmid, FRCP, MD, PhD

Landscape of ADCs in HER2-negative MBC

	HR+/HER2- BC			ТИВС		
ADC trials in MBC	DESTINY-Breast06	DESTINY-Breast04	TROPION-Breast01	TROPiCS-02	DESTINY-Breast04	ASCENT
Treatment arms	T-DXd (HER2) vs TPC	T-DXd (HER2) vs TPC	Dato-DXd (TROP2) vs TPC	SG (TROP2) vs TPC	T-DXd (HER2) vs. TPC	SG (TROP2) vs. TPC
HER2 status	>0 <1+, 1+, 2+/ISH-	1+, 2+/ISH-	0, 1+, 2+/ISH-	0, 1+, 2+/ISH-	1+, 2+/ISH-	0, 1+, 2+/ISH-
Prior chemotherapy for MBC	0	1-2	1-2	2-4	1-2	≥1
Median PFS HR (95% CI)	13.2 vs 8.1 mo. HR 0.63 (0.53-0.75)	9.6 vs 4.2 mo. HR 0.37 (0.30-0.56)	6.9 vs 4.9 mo. HR 0.63 (0.52-0.76)	5.5 vs 4.0 mo. HR 0.65 (0.53-0.81)	6.3 vs 2.9 mo. HR 0.29 (0.15-0.57)	5.6 vs 1.7 mo. HR: 0.41 (0.32-0.52)
Median OS HR (95% CI)	N/A HR 0.81 (0.65-1.00)	23.9 vs 17.6 mo. HR 0.69 (0.55-0.87)	N/A HR 0.84 (0.62–1.14)	14.5 vs 11.2 mo. HR 0.79 (0.65-0.95)	17.1 vs 8.3 mo. HR 0.58 (0.31-1.08)	12.1 vs 6.7 mo. 0.48 (0.38-0.59)
ORR	57.3% vs 31.2%	52.6% vs 16.3%	36.4% vs 22.9%	21% vs 14%	50.0% vs 16.7%	35% vs 5%

1. Is there a preferred initial ADC?

2. Is there a role for sequencing of ADCs?

Modified from Garrido-Castro AC. SABCS 2023; Curigliano G et al. ASCO 2024; Modi S et al. ESMO 2023; Bardia A et al. ESMO 2023; Tolaney S et al. ASCO 2023; Bardia A et al. N Engl J Med 2021;384:1529-41.

Critical Question How will ADCs work in sequence?



Resistance to ADCs



Courtesy of Professor Peter Schmid, FRCP, MD, PhD

Coates et al, Cancer Discovery 2021

Do you generally avoid administering 2 ADCs _____ after each other?

	Of any type	With the same target	With the same payload
Prof Schmid	Νο	Yes	Νο
Dr Tolaney	Νο	Νο	Νο
Dr Brufsky	Νο	Yes	Νο
Dr Burstein	Νο	Νο	Yes
Dr Jhaveri	No	Νο	Yes
Dr Spring	Νο	Yes	Yes

Regulatory and reimbursement issues aside, what would be your preferred next 2 lines of systemic therapy for a patient with <u>ER-positive</u>, <u>HER2-negative</u> (IHC = 0) mBC and disease progression on <u>endocrine therapy then capecitabine</u>?

	1 st subsequent systemic treatment	2 nd subsequent systemic treatment	
Prof Schmid	Sacituzumab govitecan	Paclitaxel	
Dr Tolaney	Sacituzumab govitecan	Paclitaxel	
Dr Brufsky	Sacituzumab govitecan	Eribulin	
Dr Burstein	Paclitaxel	_	
Dr Jhaveri	Datopotamab deruxtecan	Eribulin	
Dr Spring	Sacituzumab govitecan	Eribulin	

Regulatory and reimbursement issues aside, what would be your preferred next 2 lines of systemic therapy for a patient with <u>ER-positive, HER2-low</u> mBC and disease progression on <u>endocrine therapy then capecitabine</u>?

	1 st subsequent systemic treatment	2 nd subsequent systemic treatment	
Prof Schmid	Trastuzumab deruxtecan	Sacituzumab govitecan	
Dr Tolaney	Trastuzumab deruxtecan	Paclitaxel or sacituzumab govitecan	
Dr Brufsky	Trastuzumab deruxtecan	Sacituzumab govitecan	
Dr Burstein	Trastuzumab deruxtecan		
Dr Jhaveri	Trastuzumab deruxtecan	Eribulin	
Dr Spring	Trastuzumab deruxtecan	Sacituzumab govitecan	

Regulatory and reimbursement issues aside, what would be your preferred next 2 lines of systemic therapy for a patient with <u>ER-negative</u>, <u>HER2-negative</u> (IHC = 0) mBC and disease progression on <u>anthracycline and taxane</u>?

	1 st subsequent systemic treatment	2 nd subsequent systemic treatment	
Prof Schmid	Sacituzumab govitecan	Eribulin	
Dr Tolaney	Sacituzumab govitecan	Eribulin	
Dr Brufsky	Sacituzumab govitecan	Eribulin	
Dr Burstein	Sacituzumab govitecan	_	
Dr Jhaveri	Would depend on PD-L1 status, if treated with KN-522, TFI from pembrolizumab	Would depend on PD-L1 status, if treated with KN-522, TFI from pembrolizumab	
Dr Spring	Sacituzumab govitecan	Eribulin	

TFI = treatment-free interval

Regulatory and reimbursement issues aside, what would be your preferred next 2 lines of systemic therapy for a patient with <u>ER-negative</u>, <u>HER2-low</u> mBC and disease progression on <u>anthracycline and taxane</u>?

	1 st subsequent systemic treatment	2 nd subsequent systemic treatment	
Prof Schmid	Sacituzumab govitecan	Trastuzumab deruxtecan	
Dr Tolaney	Sacituzumab govitecan	Trastuzumab deruxtecan	
Dr Brufsky	Sacituzumab govitecan	Trastuzumab deruxtecan	
Dr Burstein	Sacituzumab govitecan		
Dr Jhaveri	_	_	
Dr Spring	Sacituzumab govitecan	Trastuzumab deruxtecan	

Agenda

Introduction: Pharmacology and Sequencing of Antibody-Drug Conjugates (ADCs) in Metastatic Breast Cancer (mBC)

Module 1: Expanding Role of TROP2-Directed ADCs in mBC Management — Dr Tolaney

Module 2: Other Targets for ADC Therapy in mBC — Prof Schmid



High Trop-2 Expression in mTNBC and HR+/HER2mBC¹⁻³

Trop-2 is expressed in 96% of patients with mTNBC¹⁻² and approximately 95% of patients with HR+/HER2- mBC³



High Trop-2 expression rates suggest that pre-therapy biomarker assessment is not required^{1-3.}

*Trop-2 expression was determined on primary or metastatic archival tumour tissue; *Trop-2 expression was measured using a validated IHC assay in a central laboratory. *Trop-2 expression was determined on primary or metastatic archival tumour tissue; *membrane Trop-2 expression was assessed by a validated research IHC assay at a CAP/CLIA central laboratory. HER2-, human epidermal growth factor receptor 2-negative; HR+, hormone receptor-positive; H-score, histochemical score; IHC, immunohistochemistry; mBC, metastatic breast cancer; TNBC, triple-negative breast cancer; Trop-2, trophoblast cell surface antigen-2. 1. Hurvitz SA, et al. SABCS [virtual meeting]. 2020 (oral presentation GS3-06); 2. Bardia A, et al. Ann Oncol. 2021;32(9):1148–1156; 3. Rugo HS, et al. SABCS 2022. Oral presentation GS1-11.

ADCS ANTI-TROP2 IN MBC

Sacituzumab govitecan Linker for SN-38 Humanized anti-Trop-2 antibody pH-sensitive. hydrolyzable linker for · Directed toward Trop-2, an SN-38 release in epithelial antigen expressed targeted tumor cells on many solid cancers and tumor microenvironment allowing bystander effect · High drug-to-antibody ratio (7.6:1) ٠ Deruxtecan • SN-38 payload SN-38 more potent than parent compound. Internalization and irinotecan (topoisomerase I enzymatic cleavage by inhibitor) tumor cell not required SN-38 chosen for its Cleavable for SN-38 liberation moderate cytotoxicity (with from antibody tetrapeptide-based linker IC50 in the nanomolar range), permitting delivery in high quantity to the tumor

Datopotamab deruxtecan

- Payload mechanism of action: **Topo-I** inhibitor*
- High potency payload*
- Optimised drug to antibody ratio ≈4*†
- Payload with short systemic half-life*†
- Stable linker-payload*
- Tumour-selective cleavable linker* Bystander antitumour effect*



Sacituzumab Tirumotecan (MK-2870)

- anti-TROP2 ADC •
- Sulfonyl pyrimidine-CL2Acarbonate linker
- Payload: belotecan-derivative topoisomerase I inhibitor
- **DAR**: 7.4 •

ASCENT:

Phase 3 confirmatory study of sacituzumab govitecan vs TPC in 2L and later mTNBC^{1,2}

NCT02574455



• ASCENT was halted early due to compelling evidence of efficacy per unanimous DSMC recommendation

*PFS measured by an independent, centralised, and blinded group of radiology experts who assessed tumour response using RECIST 1.1 criteria in patients without brain metastasis. ⁺The full population includes all randomised 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; CT, chemotherapy; DOR, duration of response; DSMC, Data Safety Monitoring Committee; IV, intravenous; ISH, *in-situ* hybridisation; mTNBC, metastatic triple-negative breast cancer; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; R, randomisation; RECIST, Response Evaluation Criteria in Solid Tumours; TPC, treatment of physician's choice; TTR, time to response.

1. Adapted from Bardia A, et al. ESMO 2020. Abstract LBA17; 2. Adapted from Bardia A, et al. N Engl J Med. 2021;384(16):1529–1541.

ASCENT

Sacituzumab govitecan demonstrated statistically significant and clinically meaningful improvement in PFS and OS that was consistent in the ITT and primary study population^{1,2}



Primary endpoint (PFS) assessed by independent central review in the brain metastases-negative population, as predefined in the study protocol. Secondary endpoint (PFS) assessed in the full population (brain metastases-positive and -negative) and PFS benefit was consistent (HR=0.43 [0.35–0.54], P<.0001).

ADC, antibody–drug conjugate; BICR, blinded independent central review; CI, confidence interval; HR, hazard ratio; ITT, intent-to-treat; mo, month; OS, overall survival; PFS, progression-free survival; SG, sacituzumab govitecan; TPC, treatment of physician's choice; Trop-2, trophoblast cell-surface antigen 2. 1. Adapted from Bardia A, et al. N Engl J Med. 2021;384(16):1529–1541; 2. Adapted from Bardia A, et al. N Engl J Med. 2021;384(16):1529–1541 (Supplementary data, Figure S7).

ASCENT

Sacituzumab govitecan demonstrated manageable safety profile: Neutropenia and diarrhoea were the most common treatment-related AEs¹

TRAE*1		SG (n=258)			TPC (n=224)		
		All grade, %	Grade 3, %	Grade 4, %	All grade, %	Grade 3, %	Grade 4, %
Hematologic	Neutropenia ⁺	63	34	17	43	20	13
	Anaemia‡	34	8	0	24	5	0
	Leukopenia§	16	9	1	11	4	1
	Febrile neutropenia	6	5	1	2	2	<1
Gastrointestinal	Diarrhoea	59	10	0	12	<1	0
	Nausea	57	2	<1	26	<1	0
	Vomiting	29	1	<1	10	<1	0
Other	Fatigue	45	3	0	30	5	0
	Alopecia	46	0	0	16	0	0

Key grade ≥3 TRAEs (SG vs TPC): neutropenia (51% vs 33%), diarrhoea (10% vs <1%), leukopenia (10% vs 5%), anaemia (8% vs 5%) and febrile neutropenia (6% vs 2%)

- G-CSF usage was 49% in the SG arm vs 23% in the TPC arm dose reductions due to TRAEs were similar (22% SG vs 26% TPC)
- No severe cardiovascular toxicity, no grade >2 neuropathy or grade >3 interstitial lung disease with SG
- No treatment-related deaths with SG; 1 treatment-related death (neutropenic sepsis) with TPC
- AEs leading to treatment discontinuation were low for SG and TPC: 4.7% and 5.4%

*Patients may report more than 1 event per preferred term. AEs were classified according to the MedDRA systems of preferred terms and system organ class and according to severity by NCI CTCAE v4.03. *Combined preferred terms of "Neutropenia" and "Decreased neutrophil count." Due to overlapping reporting of events for these combined terms, all grades reported are not shown for the SG arm: Grade 1: 19%; Grade 2: 37%; Grade 2: 51%. *Combined preferred terms of "Anaemia" and "Decreased hemoglobin." *Combined preferred terms of "Leukopenia" and "Decreased white blood cell count."

AE, adverse event; G-CSF, granulocyte-colony stimulating factor; MedDRA, Medical Dictionary for Regulatory Activities; NCI CTCAE, National Cancer Institute Common Terminology Criteria for Adverse Events; SG, sacituzumab govitecan; TPC, treatment of physician's choice; TRAE, treatment-related AE. 1. Adapted from Bardia A, et al. N Engl J Med. 2021;384(16):1529–1541.

ASCENT-03: Sacituzumab govitecan vs TPC in 1L PD-L1– mTNBC NCT05382299

1L mTNBC PD-L1-

- Previously untreated, inoperable, locally advanced, or metastatic TNBC
- PD-L1- tumors (CPS <10, IHC 22C3 assay) <u>OR</u> PD-L1+ tumors (CPS ≥10, IHC 22C3 assay) if treated with anti-PD-(L)1 agent in the curative setting
- ≥6 months since treatment in curative setting
- Prior anti-PD-(L)1 agent allowed in the curative setting
- PD-L1 and TNBC status centrally confirmed



Stratification Factors:

- *De novo* vs recurrent disease within 6-12 months of treatment in the curative setting vs recurrent disease >12 months after treatment in the curative setting
- Geographic region

BICR, blinded independent central review; CPS, combined positive score; IHC, immunohistochemistry; mTNBC, metastatic triple negative breast cancer; PD-L1, programmed death ligand 1; R, randomized; SG, sacituzumab govitecan; TPC, treatment of physician's choice.

TROPiCS-02:

A Phase 3 Study of SG in pre-treated HR+/HER2- (IHC0, IHC1+, IHC2+/ISH-) locally recurrent inoperable or metastatic breast cancer^{1,2}

or unacceptable toxicity

Metastatic or locally recurrent inoperable HR+/HER2- breast cancer that progressed after^{*}

- At least 1 endocrine therapy, taxane, and CDK4/6 inhibitor in any setting
- At least 2, but no more than 4, lines of chemotherapy for metastatic disease
- Measurable disease by RECIST 1.1

N=543

NCT03901339



- Visceral metastases (yes/no)
- Endocrine therapy in metastatic setting ≥6 months (yes/no)
- Prior lines of chemotherapies (2 vs 3/4)

Treatment was continued until progression

*Disease histology based on the ASCO/CAP criteria. †Single-agent standard-of-care treatment of physician's choice was specified prior to randomisation by the investigator.

ASCO/CAP, American Society of Clinical Oncology/College of American Pathologists; BICR, blinded independent central review; CBR, clinical benefit rate; CDK, cyclin-dependent kinase; DOR, duration of response; HER2-, human epidermal growth factor receptor 2negative; HR+, hormonal receptor-positive; IV, intravenously; LIR, local investigator review; ORR, objective response rate; OS, overall survival; PFS, progression-free survival, PRO, patient-reported outcome; R, randomised; RECIST, Response Evaluation Criteria in Solid Tumours.

1. Adapted from Rugo H, et al. ESMO 2022. Oral LBA76; 2. Rugo HS, et al. J Clin Oncol. 2022;40:3365–3376.

TROPiCS-02:

Sacituzumab govitecan demonstrated a statistically significant and clinically meaningful improvement in PFS and OS vs chemotherapy, with continued improvement confirmed with longer follow-up^{1–4}



*Stratified log rank *P*-value. # Primary endpoint (PFS) assessed by blinded independent central review in the ITT study population, as predefined in the study protocol. Secondary endpoint (OS). † PFS and OS exploratory analysis with an extended follow-up of ~13 months. BICR, blinded independent central review; CI, confidence interval; HR, hazard ratio; PFS, progression-free survival; OS, overall survival; SG, sacituzumab govitecan; TPC, treatment of physician's choice, ITT, intent-to-treat.

1. Adapted from Rugo HS, et al. J Clin Oncol. 2022;40:3365–3376; 2. Adapted from Rugo H, et al. ESMO 2022. Oral LBA76; 3. Adapted from Rugo H, et al. Lancet. 2023;S0140-6736(23)01245-X. 4. Tolaney S, et al. ASCO 2023. Abstract #1003.

ASCENT-07 Ongoing

A Phase 3, Randomized, Open-label Study of SG vs TPC in Patients with HR+/HER2-negative (IHC 0, IHC 1+, IHC 2+/ISH Negative) Inoperable, Locally Advanced, or Metastatic BC and Have Received ET



NCT05840211—full participation criteria available at ClinicalTrials.gov



Stratification Factors

- Duration of prior CDK 4/6i in the metastatic setting (none vs ≤12 months vs >12 months)
- HER2 (HER2 IHC 0 vs HER2 IHC-low [IHC 1+; 2+/ISH negative])
- Geographic region (US/CAN/UK/EU vs ROW)
Case Presentation – Dr Tolaney: A 55-year-old woman with previously treated HR-positive, HER2-negative mBC

- 55 yo female who was diagnosed with T2 N1 ER+ breast cancer; received ddACT followed by AI + palbociclib (on PALLAS trial)
- 3.5 yrs after diagnosis, developed transaminitis, and found to have liver metastases
- Liver Biopsy: ER+ PR- HER2 1+ ; NGS: high TMB (no PI3Km, no ESR1m)
- Started fulvestrant + abemaciclib; liver enzymes rose further
- Went onto capecitabine, with improvement in LFTs in just 2-3 wks, and remained on it for 13 months
- Developed disease progression with worsening bone and liver mets
- Enrolled onto a clinical trial (SACI IO HR+) and was randomized to sacituzumab govitecan monotherapy; had a response (-45% by RECIST); has been on study for 12 months and is developing slight progression in her liver (LFTs stable)

COMBINING SACITUZUMAB GOVITECAN WITH CHECKPOINT INHIBITION

Hypothesis: Sacituzumab govitecan induces DNA damage and results in STING activation, efficacy will be enhanced by checkpoint inhibition



Sara M. Tolaney, MD, MPH

SACI-IO HR+: Study Schema

Metastatic or locally advanced unresectable breast cancer

- HR-positive (ER ≥ 1% or PR ≥ 1%), HER2-negative (IHC 0, 1+, or 2+/ ISH-)
- No restriction on PD-L1 status^a
- ≥1 endocrine therapy for mBC <u>or</u> progression on or within 12 months of adjuvant endocrine therapy
- 0-1 prior chemotherapy for mBC
- No prior topoisomerase I-inhibitor ADC, irinotecan, or PD-1/-L1 inhibitor
- No known active brain metastases or leptomeningeal disease



Study activation date: 9/23/2020. Data cutoff for analysis: 3/9/2024.

^a Profecol amendment activated in 1/2022 to allow participants with any PD-L1 status to enroll. ^b Central PD-L1 testing performed with PharmDx 22C3 assay. PD-L1-positive, combined positive score (CPS) ≥1. Note: There is no approved CDx with 22C3 for HR+/HER2- mBC. Abbreviations: HR, hormone receptor; ER, estrogen receptor; PR, progesterone receptor; IHC, immunohistochemistry; ISH, in situ hybridization; mBC, metastatic breast cancer; ADC, antibody drug conjugate; ITT, intent-to-treat; PFS, progression-free survival; OS, overall survival; ORR, objective response rate; DOR, duration of response; TTOR, time to objective response; CBR, clinical benefit rate; HRQoL, health-related quality of life.

SACI-IO HR+: Progression-Free Survival



Treatment Arm	SG + Pembrolizumab (N=52)	SG (N=52)
N PFS events	38	38
Median PFS, months	8.12	6.22
(95% CI)	(4.51-11.12)	(3.85-8.68)
HR (95% CI)	0.81 (0.51-1.28)	
p-value (logrank test)	0.37	

The addition of pembrolizumab to SG showed a numerical improvement in median PFS (Δ = 1.9 months) compared to SG alone that did not reach statistical significance

SACI-IO HR+: Overall Survival



SACI-IO HR+: Progression-Free Survival by PD-L1 IHC status

PD-L1-positive (CPS ≥1)



PD-L1-negative (CPS <1)



SACI-IO HR+: Overall Survival by PD-L1 IHC status





COULD AN ADC ALLOW CHECKPOINT INHIBITION TO HAVE BENEFIT IN METASTATIC TNBC THAT IS PD-L1-NEGATIVE?

BEGONIA: Dato-DXd+ durvalumab



Not evaluable

Partial response

Complete response

Schmid P et al. ESMO 2023

Progressive disease

SACI-IO TNBC: SG +/- pembro in PD-L1- 1L mTNBC



WILL ADC + IO BECOME THE NEW 1L SOC FOR mTNBC?

ASCENT-04 SG+ pembro vs TPC+ pembro in 1L PD-L1+ mTNBC



Stratification factors:



- De novo vs recurrent disease within 6-12 months of treatment in the curative setting vs recurrent disease >12 months after treatment in the curative setting
 Geographic region (US/Canada vs rest of world)
- Prior exposure to anti-PD-(L)1 therapy

TROPION-Breast05 Dato-DXd +/- durva vs TPC + pembro in 1L PD-L1+ mTNBC

Key Eligibility Criteria

- Previously untreated metastatic or locally advanced inoperable TNBC (ER<1%, PR<1%, HER2neg)
- · Measurable disease as defined by RECIST v1.1
- · Adequate ECOG, hematologic and end-organ function
- · PD-L1+ (CPS ≥ 10 IHC 22C3) by central testing
- No active brain metastases
- · DFI≥ 6 mo since treatment in curative setting
- Prior PD-1/PD-L1 treatment for early stage TNBC allowed

Stratification factors:

- De novo, prior DFI 6 to ≤ 12 mo[†], prior DFI >12 mo
- Geographic region (US/Canada/Europe vs Dato-DXd monotherapy arm enrolling countries vs ROW)
- Prior PD-1/PD-L1 treatment for early stage TNBC



Case Presentation – Dr Tolaney: A 51-year-old woman with previously treated triple-negative mBC

- 51 yo female who presented with a R-sided breast mass with an enlarged ipsilateral R axillary lymph node
- Biopsy of the breast and axillary lymph node were consistent with ER- PR- HER2 1+ breast cancer
- Staging scans revealed two suspicious pulmonary nodules, largest 2.5 cm
- Biopsy of one of the lung nodules was ER- PR- HER2 1+
- PD-L1 testing was sent off the breast biopsy and returned CPS 1 by 22C3
- NGS revealed no targetable alterations, germline testing without mutations
- Went onto a clinical trial SACI IO TNBC and was randomized to sacituzumab + pembrolizumab
- Achieved CR, and went onto pembrolizumab alone; after 35 cycles, stopped pembro, now NED off therapy

Datopotamab Deruxtecan (Dato-DXd) TROP2 ADC in Development



Circulating free payload is negligible due to high stability of the linker, thereby limiting systemic exposure or nontargeted delivery of the payload

High-potency membrane-permeable payload (DXd) that requires TROP2mediated internalization for release

DS-1062 has a DAR of 4 for optimized therapeutic index

DS-1062 has a substantially longer half-life than SG (≈ 5 days vs 11–14 hours), enabling a more optimal dosing regimen

SG's DLT is neutropenia, while DS-1062's DLTs are maculopapular rash and stomatitis/mucosal inflammation

DLT, dose-limiting toxicity.

Courtesy of Sara M Tolaney, MD, MPH

Design of Sacituzumab Tirumotecan (sac-TMT)

Sac-TMT is a TROP2 ADC developed with a proprietary Kthiol (pyrimidine-thiol) linker conjugated to a novel topoisomerase I inhibitor at DAR 7.4. The features of sac-TMT lead to release of the payload both in the tumor microenvironment (TME) and inside tumor cells, achieving a balance between safety and efficacy.

Antibody

 hRS7, a recombinant humanized anti-TROP2 antibody with high affinity

Linker

- Kthiol conjugation: irreversible coupling to improve stability of ADC
- Payload release: intracellular cleavage and extracellular hydrolysis in TME
- Balanced stability: balance between efficacy and safety to expand therapeutic window



Payload

- Novel topo I inhibitor (a belotecan derivative), highly active
- Average DAR: 7.4 (range: 7–8)
- Bystander effect
- Methylsulfonyl derivatization enhances linker stability and toxin permeability

ADC, antibody-drug conjugate; DAR, drug-to-antibody ratio; TME, tumor microenvironment; TROP2, trophoblast cell surface antigen 2.







Based on your personal clinical experience and knowledge of the available data, what is your estimate of the chance that a patient undergoing treatment with <u>sacituzumab govitecan</u> will require withholding or discontinuing administration because of treatment toxicity?

	Chance of withholding	Chance of discontinuation	
Prof Schmid	50%	<5%	
Dr Tolaney	50%	5%	
Dr Brufsky	15%	5%	
Dr Burstein	50%	10%	
Dr Jhaveri	25%	Low	
Dr Spring	25%	20%	

Do you routinely employ G-CSF prophylaxis for all patients receiving sacituzumab govitecan or only for select patients?

Prof Schmid	All patients
Dr Tolaney	Patients with a history of neutropenia requiring growth factor
Dr Brufsky	All patients
Dr Burstein	Patients with low WBC at cycles 2 and beyond
Dr Jhaveri	Patients with baseline neutropenia, those who have ANC <1,000 for day 8, those with neutropenia requiring G-CSF on prior chemotherapies
Dr Spring	Select patients



Based on your personal clinical experience and knowledge of available data, how would you characterize the degree of alopecia observed with _____?

	Sacituzumab govitecan	Trastuzumab deruxtecan	
Prof Schmid	Complete alopecia as observed with anthracyclines	Complete alopecia as observed with anthracyclines	
Dr Tolaney	Complete alopecia as observed with anthracyclines	Moderate alopecia as observed with platinum agents	
Dr Brufsky	Moderate alopecia as observed with platinum agents	Less alopecia than that observed with platinum agents	
Dr Burstein	Moderate alopecia as observed with platinum agents	Moderate alopecia as observed with platinum agents	
Dr Jhaveri	Complete alopecia as observed with anthracyclines	Moderate alopecia as observed with platinum agents	
Dr Spring	Complete alopecia as observed with anthracyclines	Moderate alopecia as observed with platinum agents	

Agenda

Introduction: Pharmacology and Sequencing of Antibody-Drug Conjugates (ADCs) in Metastatic Breast Cancer (mBC)

Module 1: Expanding Role of TROP2-Directed ADCs in mBC Management — Dr Tolaney

Module 2: Other Targets for ADC Therapy in mBC — Prof Schmid



HER2 low – new breast cancer subtype?



Marchio C, et al. Seminars in Cancer Biol. 2020;72:123–135; Schettini F and Prat A. The Breast. 2021;59:339–350; Dieras V et al. Presented at SABCS 2021; Schmid P, Personal Communication. Jacot W, et al. Cancers. 2021;13(23):6059; Modi S, et al. J Clin Oncol. 2020;38(17):1887–1896

T-DXd in brain metastases in HER2_{low}

DESTINY-Breast04 Trial

35 patients with BICR-assessed, asymptomatic brain metastases at baseline (24 on T-DXd arm; 11 on TPC)



- Intracranial efficacy data suggest a benefit of T-DXd over TPC; this is consistent with the overall observed efficacy of T-DXd in patients with HER2-low mBC
- The observed efficacy of T-DXd in patients with HER2+ mBC with BM

Definition: HER2-low and HER2-ultralow



DESTINY-Breast06: PFS in HER2-low and ITT



DESTINY-Breast06: OS in HER2-low and ITT



*39.6% maturity (of total N for population) at this first interim analysis; median duration of follow up was 18.6 months (HER2-low); [†]P-value of <0.0046 required for statistical significance; [‡]no test of significance was performed in line with the multiple testing procedure; median duration of follow up was 18.2 months (ITT)CI, confidence interval; HER2, human epidermal growth factor receptor 2; ITT, intent-to-treat; OS, overall survival; T-DXd, trastuzumab deruxtecan; TPC, chemotherapy treatment of physician's choice

DESTINY-Breast06: PFS and OS in HER2-ultralow



Case Presentation – Prof Schmid

62 y/o woman gBRCA/PALB2 wildtype



Side effects of ADCs



T-DXd: 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: Increase dose or switch to IV	if not better within 5d: Infliximab, IVIG or MMF
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)	

Regulatory and reimbursement issues aside, would you offer trastuzumab deruxtecan to a patient with _____?

	HER2 IHC 0 mBC with a HER2 mutation	mBC with a HER2 IHC score of 0 on repeated assessments
Prof Schmid	Yes	Yes
Dr Tolaney	Yes	Yes
Dr Brufsky	Νο	Νο
Dr Burstein	Yes	Νο
Dr Jhaveri	Yes	Νο
Dr Spring	Yes	Yes

Do you anticipate that ADCs will routinely be employed in the front-line setting for mBC in the future?

Prof Schmid	Yes; alone in ER-positive disease, in combination with CIT in TNBC
Dr Tolaney	Yes; for TNBC, likely ADC + IO in PD-L1+, or ADC alone if PD-L1-; in HR+ breast cancer, T-DXd is already moving as 1L chemo based on DB-06
Dr Brufsky	Yes; alone
Dr Burstein	Yes; alone
Dr Jhaveri	Yes; alone
Dr Spring	Yes; alone, most ADCs are very active as single agents

CIT = chemoimmunotherapy; TNBC = triple-negative breast cancer; IO = immunotherapy



Based on your personal clinical experience and knowledge of the available data, what is your estimate of the chance that a patient undergoing treatment with <u>trastuzumab deruxtecan</u> will require withholding or discontinuing administration because of treatment toxicity?

	Chance of withholding	Chance of discontinuation	
Prof Schmid	30%	<5%	
Dr Tolaney	20%	15%	
Dr Brufsky	25%	10%	
Dr Burstein	50%	20%	
Dr Jhaveri	25%	Low	
Dr Spring	20%	15%	

Based on your personal clinical experience and knowledge of the available data, what is your estimate of the chance that a patient undergoing treatment with <u>datopotamab deruxtecan</u> will require withholding or discontinuing administration because of treatment toxicity?

	Chance of withholding	Chance of discontinuation	
Prof Schmid	30%	<5%	
Dr Tolaney	25%	10%	
Dr Brufsky	20%	10%	
Dr Burstein			
Dr Jhaveri	25%	Low	
Dr Spring	15%	10%	

Do you use chest imaging to monitor for interstitial lung disease in patients receiving trastuzumab deruxtecan who otherwise do not require chest imaging? How often do you order chest imaging? For how long do you continue to order chest imaging in patients who are experiencing an ongoing response?

	Chest imaging?	Frequency	Duration
Prof Schmid	Yes	Every 9-12 weeks	As long as on treatment
Dr Tolaney	Yes	Every 6-9 weeks	Every 6-9 weeks for first 12 months, then every 12 weeks
Dr Brufsky	Yes	Every 12 weeks	Every 12 weeks
Dr Burstein	Νο	N/A	N/A
Dr Jhaveri	Yes	Every 9 weeks	Every 9 weeks for the first year, every 12 weeks after
Dr Spring	Yes	After ~6 weeks, then 9 weeks, then every 12 weeks	Part of restaging but with time comfortable with every 3 months or so

Based on your personal clinical experience and knowledge of available data, how would you characterize the degree of mucositis observed with datopotamab deruxtecan? What preemptive strategies do you use to prevent mucositis in your patients receiving datopotamab deruxtecan, and how effective are these generally?

	Degree of mucositis observed	Preemptive strategies, effectiveness
Prof Schmid	Typically Grade 1	Steroid mouthwash; Magic mouthwash
Dr Tolaney	Typically Grade 1	Dexamethasone sw/sp QID
Dr Brufsky	Typically Grade 2	Steroid mouthwash
Dr Burstein	Typically Grade 1	Have not administered
Dr Jhaveri	Typically Grade 2	Ice chips during infusion, dexamethasone mouthwash 3-4 times a day
Dr Spring	Typically Grade 1	Prophylactic steroid mouthwash; effective

Inside the Issue: Integrating ALK-Targeted Therapy into the Management of Localized Non-Small Cell Lung Cancer

A CME/MOC-Accredited Live Webinar

Thursday, July 18, 2024 5:00 PM – 6:00 PM ET

Faculty

Professor Solange Peters, MD, PhD Professor Ben Solomon, MBBS, PhD

> Moderator Neil Love, MD



Thank you for joining us!

Please take a moment to complete the survey currently up on Zoom. Your feedback is very important to us. The survey will remain open for 5 minutes after the meeting ends.

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

