#### Inclusion of Older Adults in the Tesetaxel Development Program

Kevin Tang Odonate Therapeutics, Inc.

Improving the Evidence Base for Treatment Decision-Making for Older Adults with Cancer: A Virtual Workshop

Convened by the National Cancer Policy Forum, in collaboration with the Forum on Drug Discovery, Development, and Translation, and the Forum on Aging, Disability, and Independence

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#### **Disclosures**

Kevin Tang is a board member, officer and stockholder of Odonate Therapeutics, Inc.

# Older Adults Often Overlooked Population with Unmet Medical Need

- In oncology, development strategies often focus on:
  - Tumor type
  - Molecular target (on the tumor or immune cell)
  - Line of therapy
  - Current treatment landscape
- Certain populations with unmet medical need are often overlooked:
  - Pediatric patients
  - Patients ineligible for standard therapy
  - Older adults

### Older Adults with Metastatic Breast Cancer (MBC) Represent a Population with Unmet Medical Need<sup>a</sup>



<sup>&</sup>lt;sup>a</sup> Mariotto et al, Cancer Epidemiol Biomarkers Prev. 2017; 26:809-815

### Balance of Efficacy, Tolerability and Quality of Life Is Particularly Important in Older Adults







# Taxanes and Capecitabine Are Commonly Used Chemotherapy Options in MBC

Physician-reported Preferences for First-line Chemotherapy for Patients with HR-Positive, HER2-Negative MBC



Recent survey of 201 U.S. community-based oncologists from Lin et al, *Cancer Medicine* 2016;5(2):209-220

#### **Currently Available Taxanes** (Paclitaxel, Nab-paclitaxel and Docetaxel) All Are Administered Intravenously

Therapies that must be given intravenously at an infusion center often are associated with<sup>a</sup>:

- Fear of needles and complications associated with venous access
- Anxiety, including institutional-triggered side effects such as nausea and vomiting
- Heightened awareness of lifethreatening disease presence
- Disruption of daily activities



<sup>a</sup> Gornas et al, *European Journal of Cancer Care* 2010;19(1):131-136; Schott et al, *BMC Cancer* 2011;11:129

# Capecitabine Is Administered Orally with a Significant Pill Burden



<sup>a</sup> Illustration for patients with body surface area of 1.66-1.77 m<sup>2</sup> (most common body surface area range) based on Xeloda (capecitabine) FDA prescribing information

# **Tesetaxel: An Orally Administered Taxane** with Unique Pharmacologic Properties

Molecule	Paclitaxel	Docetaxel	Tesetaxel
Structure	OH OH OH OH HO HO HO O HO O HO O HO O	HO O OH OH OH ONH O HO O Taxane Core	Nitrogen- containing functional groups F OH NH O NH O HO Taxane core
Substantially effluxed by P-gp pump*	Yes	Yes	No
Oral bioavailability in preclinical studies	8% <sup>a</sup>	18% <sup>b</sup>	56%
Solubility (µg/mL) <sup>c</sup>	0.3 <sup>d</sup>	0.5 <sup>e</sup>	41,600
Terminal plasma half-life in humans (t <sub>1/2</sub> )	0.5 days <sup>f</sup>	0.5 days <sup>g</sup>	8 days <sup>h</sup>

\*The P-glycoprotein (P-gp) efflux pump mediates gastric absorption as well as chemotherapy resistance

<sup>a</sup> Shanmugam et al, Drug Development and Industrial Pharmacy	<sup>e</sup> Bharate et al, <i>Bioorganic &amp; Medicinal Chemistry Letters</i>	
2015;41(11):1864-1876	2015;25(7):1561-1567	
<sup>b</sup> McEntee et al, Veterinary and Comparative Oncology 2003;1(2):105-112	<sup>f</sup> Tan et al, <i>British Journal of Cancer</i> 2014;110(11):2647-54	
<sup>c</sup> At pH conditions similar to gastric fluid	<sup>g</sup> Taxotere (docetaxel) FDA prescribing information	
<sup>d</sup> Montaseri, Taxol: Solubility, Stability and Bioavailability 1997	<sup>h</sup> Pharmacokinetic data from Studies 927A-PRT001, 927E-PRT003,	0
	927E-PRT005, 927A-PRT006 and 927E-PRT007	9

# **Tesetaxel Is Administered Orally as 2-5 Capsules Once Every 3 Weeks**

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Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

<sup>a</sup> Illustration for patients with body surface area of 1.57-1.75 m<sup>2</sup> (most common body surface area range) based on 10 CONTESSA, CONTESSA 2 and CONTESSA TRIO



Activity of Tesetaxel, an Oral Taxane, Given as a Single-agent in Patients with HER2-, Hormone Receptor + (HR+) Metastatic Breast Cancer (MBC) in a Phase 2 Study

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<sup>1</sup>Memorial Sloan Kettering Cancer Center, New York, NY; <sup>2</sup>West Cancer Center, Memphis, TN;
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#### Response

- All 38 enrolled patients are included in the efficacy analysis
- 45% (95% CI: 29%-62%) of patients achieved a confirmed response
- Median duration of response was 10.9 months (95% CI: 4.3-13.6 months)
- Median progression-free survival (PFS) was 5.4 months (95% CI: 3.8-9.8 months)



<sup>a</sup> Includes 1 patient who was not evaluated for response Source: Seidman et al, 2018 ASCO Annual Meeting

#### **Confirmed Response Rate by Subgroups**

Characteristics (%)		n/N (%) (95% CI)	P-value
Overall treatment group All (100)		17/38 (45) (29-62)	
Age (years)		[7/38 (45) (29-02)	
<65 (71) >=65 (29)		9/27 (33) (17-54) 8/11 (73) (39-94)	0.0268
ECOG			
0 (53) >=1 (47)		9/20 (45) (23-68) 8/18 (44) (22-69)	0.9726
Years from diagnosis			
<2 (55) >=2 (45)		8/21 (38) (18-62) 9/17 (53) (28-77)	0.3601
Prior anthracycline No (50)	F	8/19 (42) (20-67)	
Yes (50)		9/19 (47) (24-71)	0.7442
Prior taxane			
No (47)		8/18 (44) (22-69)	
Yes (53)		9/20 (45) (23-68)	0.9726
Prior hormonal therapy			
No (26)		3/10 (30) (7-65)	
Yes (74)		14/28 (50) (31-69)	0.2749
Liver involvement		10/10 (52) (20.76)	
No (50) Yes (50)		10/19 (53) (29-76) 7/19 (37) (16-62)	0.3277
Lung involvement		1119 (37) (10-02)	0.5277
No (53)		7/20 (35) (15-59)	
Yes (47)		10/18 (56) (31-78)	0.2032
Bone involvement		10/10 (50) (51-70)	0.2002
No (50)		8/19 (42) (20-67)	
Yes (50)	· · · · · · · · · · · · · · · · · · ·	9/19 (47) (24-71)	0.7442
Dose escalated			
No (63)		9/24 (38) (19-59)	
Yes (37)		8/14 (57) (29-82)	0.2401
		100	
	0 20 40 60 80	100	
	Response Rate (%) (95% CI)		

Source: Seidman et al, 2018 ASCO Annual Meeting



Results from CONTESSA: A Phase 3 study of tesetaxel plus a reduced dose of capecitabine versus capecitabine alone in patients with HER2-, hormone receptor + (HR+) metastatic breast cancer (MBC) who have previously received a taxane

Joyce O'Shaughnessy, Lee Schwartzberg, Martine Piccart, Hope S. Rugo, Denise A. Yardley, Javier Cortes, Michael Untch, Nadia Harbeck, Gail S. Wright, Igor Bondarenko, John Glaspy, Zbigniew Nowecki, Fadi Kayali, Arlene Chan, Christelle Levy, Mei-Ching Liu, Sung-Bae Kim, Julie Lemieux, Alexey Manikhas, Sara Tolaney, Elaine Lim, Andrea Gombos, Agostina Stradella, Mark Pegram, Peter Fasching, Laszlo Mangel, Vladimir Semiglazov, Veronique Dieras, Luca Gianni, Michael A. Danso, Jeff Vacirca, Stew Kroll, Joseph O'Connell, Kevin Tang, Thomas Wei and Andrew Seidman

# **Study Design**



BID=twice per day; PO=oral dosing

Primary Endpoint: PFS as assessed by the Independent Radiologic Review Committee (IRC)

<u>Secondary Endpoints</u>: Overall survival (OS), objective response rate (ORR) as assessed by IRC<sup>a</sup> and disease control rate (DCR) [ORR or stable disease of ≥24 weeks] as assessed by IRC<sup>a</sup>

#### **PFS as Assessed by IRC**



	Tesetaxel plus Capecitabine (N=343)	Capecitabine Alone (N=342)				
Events	155	169				
Median Months (95% CI)	9.8 (8.4 – 12.0) 2.9-Month Im	6.9 (5.6 – 8.3) provement				
Hazard Ratio (95% CI)	0.716 (0.573 – 0.895)					
P-value	0.003					

Cl=confidence interval

# PFS as Assessed by IRC by Protocol-Specified Subgroups

Characteristics (%)	Hazard Ratio (95% CI)	P-value
Overall Treatment Group		
All (100)	0.72 (0.57 – 0.90)	0.003
Age (years)		
<65 (78)	0.69 (0.53 – 0.88)	0.003
≥65 (22)	0.72 (0.43 – 1.21)	0.217
Baseline ECOG		
0 (57)	0.62 (0.46 - 0.84)	0.002
≥1 (43)	0.80 (0.58 – 1.12)	0.197
DFI Following Prior Taxane		
<24 months (33)	0.70 (0.48 – 1.02)	0.063
≥24 months (67)	0.69 (0.52 – 0.91)	0.009
Prior CDK 4/6 Inhibitor		
No (50)	0.67 (0.49 - 0.92)	0.013
Yes (50)	0.76 (0.55 – 1.04)	0.086
Visceral or CNS Disease		
No (21)	0.87 (0.48 – 1.57)	0.641
Yes (79)	0.70 (0.55 – 0.89)	0.004
Geographic Region		
North America/Western Europe (67)	0.72 (0.54 – 0.94)	0.017
ROW (33)	0.71 (0.48 – 1.04)	0.079
<-Favors Tesetaxel+Capecitabine	Favors Capecitabine->	
0.2 0.4 0.6 0.8	1.0 2.0 3.0 4.0 5.0	1
Source: O'Shaughnessy et al. 2020 SABCS		

Source: O'Shaughnessy et al, 2020 SABCS

# Tesetaxel plus Capecitabine All Grade Treatment Emergent Adverse Events (TEAEs) of Interest

- Neutropenia was the most frequent grade ≥3 TEAE
- Grade  $\geq$ 3 neuropathy was low (5.9%)
- Grade 2 alopecia (hair loss) was low (8.0%)
- No treatment-related hypersensitivity reactions

# Study Design Features That May Increase Older Adult Participation

- At-home administration
- Replacement of select clinic visits with telemedicine and/or local lab assessments
- Site selection



#### CONTESSA Patient Age by Site Type

# **CONTESSA TRIO Cohort 2 Exclusively Enrolled Older Adults**

#### Cohort 2: Multicenter (N=60)

#### Key Eligibility Criteria

- <u>Elderly (≥65 years old)</u> patients with HER2-negative MBC
- 0 prior chemotherapy regimens for MBC
- Any number of prior endocrine or targeted therapies

#### Cohort 3: Multicenter (N=60)

#### **Key Eligibility Criteria**

- <u>Non-Elderly (≥18 to <65 years old)</u> patients with HER2-negative MBC
- 0 prior chemotherapy regimens for MBC
- Any number of prior endocrine or targeted therapies

**Tesetaxel Monotherapy** 27 mg/m<sup>2</sup> once every 3 weeks

<u>Primary Endpoints</u>: ORR and PFS in patients with HR-positive, HER2-negative disease

<u>Secondary Endpoints</u>: ORR and PFS in patients with triple-negative disease, duration of response and OS

### **CONTESSA TRIO Cohort 2 Patient Age**



# Summary

- Older adults often represent an overlooked population with unmet medical need
  - Approximately 50% of patients with MBC are 65 or older
- The tesetaxel development program was designed to provide evidence of tesetaxel's benefit-risk profile in older adults:
  - Phase 2 study suggested attractive profile in older adults
  - Phase 3 study included older adults
  - Additional Phase 2 study conducted exclusively in older adults
- Strategies employed to increase enrollment of older adults included:
  - At-home administration/alternatives to clinic visits
  - Inclusion of community oncology sites

#### **Thank You**