G1 Therapeutics:
Next Generation Cancer Treatments

UBS Global Healthcare Conference

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www.g1therapeutics.com

NASDAQ: GTHX

Forward-looking statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate," "estimate," "intend" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. Forward-looking statements in this presentation include, but are not limited to, the therapeutic potential of trilaciclib, lerociclib and G1T48 and the timing for next steps with regard to the trilaciclib marketing applications, and are based on the Company's expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties. Factors that may cause the Company's actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" sections contained therein and include, but are not limited to, the Company's ability to complete clinical trials for, obtain approvals for and commercialize any of its product candidates; the Company's initial success in ongoing clinical trials may not be indicative of results obtained when these trials are completed or in later stage trials; the inherent uncertainties associated with developing new products or technologies and operating as a development-stage company; the Company's development of a CDK4/6 inhibitor to reduce chemotherapy-induced myelosuppression is novel, unproven and rapidly evolving and may never lead to a marketable product; and market conditions. Except as required by law, the Company assumes no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

Vision: improve the lives of people with cancer

1

Three therapeutic candidates that advance cancer care for large patient populations

2

Proven operational efficiency, financial discipline and strong balance sheet

3

Opportunity for value-creating partnerships as therapeutic candidates advance globally

Robust clinical-stage pipeline

Three wholly-owned therapeutic candidates

Trilaciclib

First-in-class myelopreservation agent

- ✓ Consistent protection from chemo-induced damage: three randomized SCLC trials
- ✓ **U.S. and European regulatory submissions planned for 2020**
- ✓ Pipeline-in-a-program
- ✓ Preliminary PFS benefit in mTNBC; update in 4Q19

Lerociclib

Differentiated CDK4/6 inhibitor

- ✓ POC in Ph1b ER+ BC trial
- ✓ **Less dose-limiting neutropenia, potential for less monitoring in BC**
- ✓ Favorable tolerability profile
- ✓ Combine with targeted Rx across multiple indications

G1T48

Potential best-in-class oral SERD for breast cancer (BC)

- ✓ Differentiated chemistry, favorable tolerability
- ✓ **Accelerating program: data in ER+ BC in Q319**
- ✓ Opportunity across multiple lines of therapy

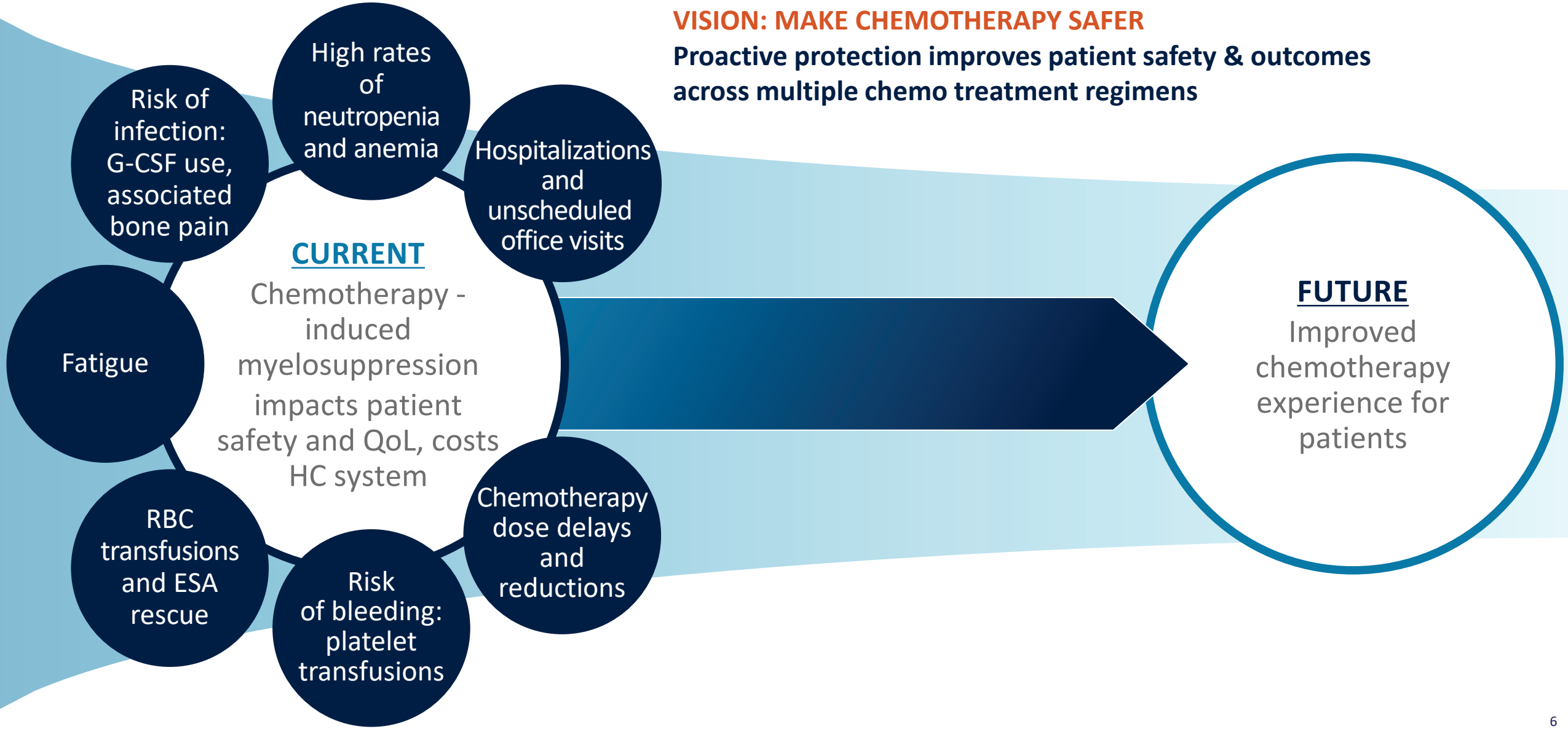
TRILACICLIB DEVELOPMENT UPDATE

Hematopoietic stem and progenitor cells (HSPCs)

Trilaciclib: first-in-class myelopreservation agent

VISION: MAKE CHEMOTHERAPY SAFER

Proactive protection improves patient safety & outcomes across multiple chemo treatment regimens



Trilaciclib: improving the patient experience on chemo

1

Substantial need

- ~1 million patients in U.S. receive chemotherapy each year
- Chemo to remain a cornerstone of cancer treatment
- Myelosuppression is common; impacts QoL and burdens HC system

2

Phase 2 program: improved safety/patient experience on chemo

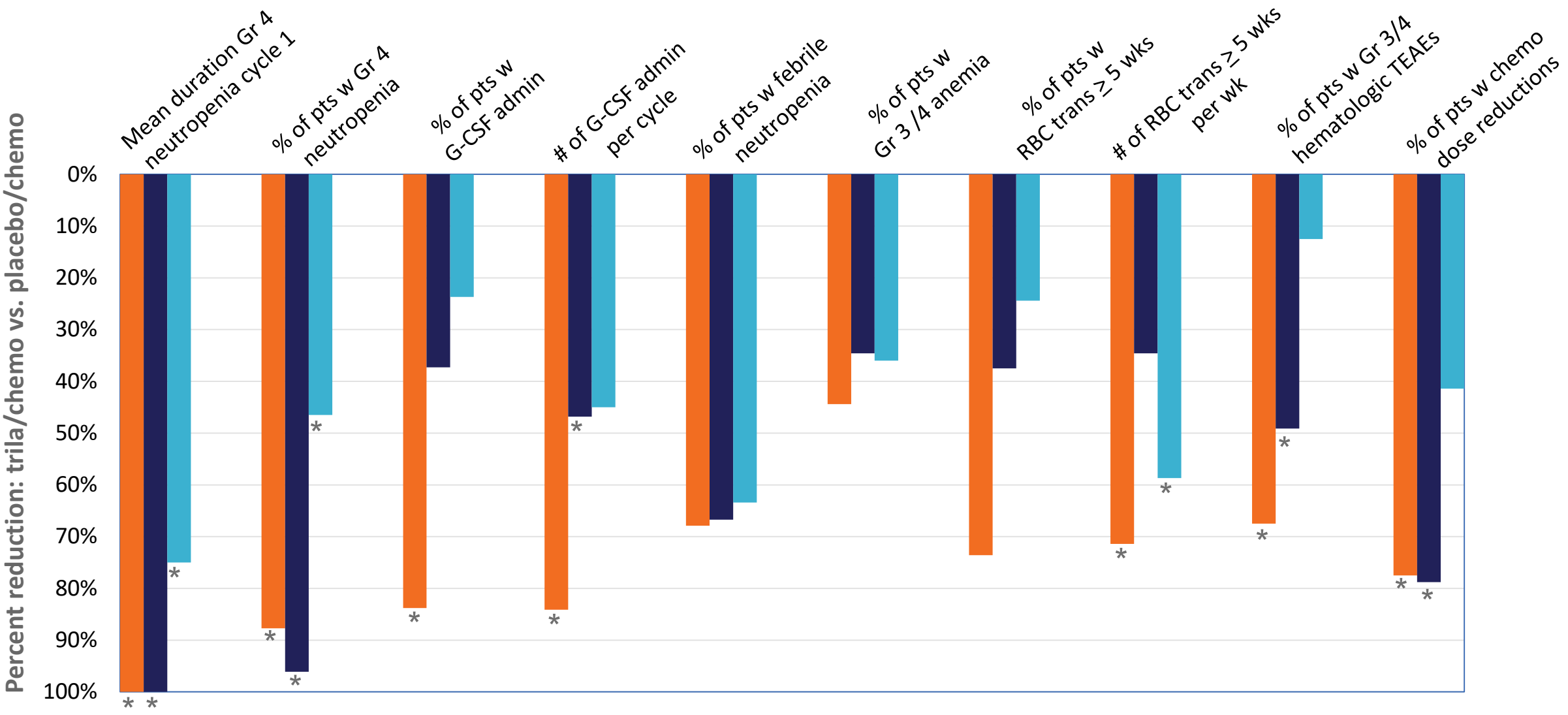
- Less neutropenia *and* anemia in SCLC
- Reduced G-CSF usage *and* transfusions in SCLC
- No impairment of chemo efficacy in SCLC
- Preliminary PFS benefit in mTNBC

3

Next steps in trilaciclib development

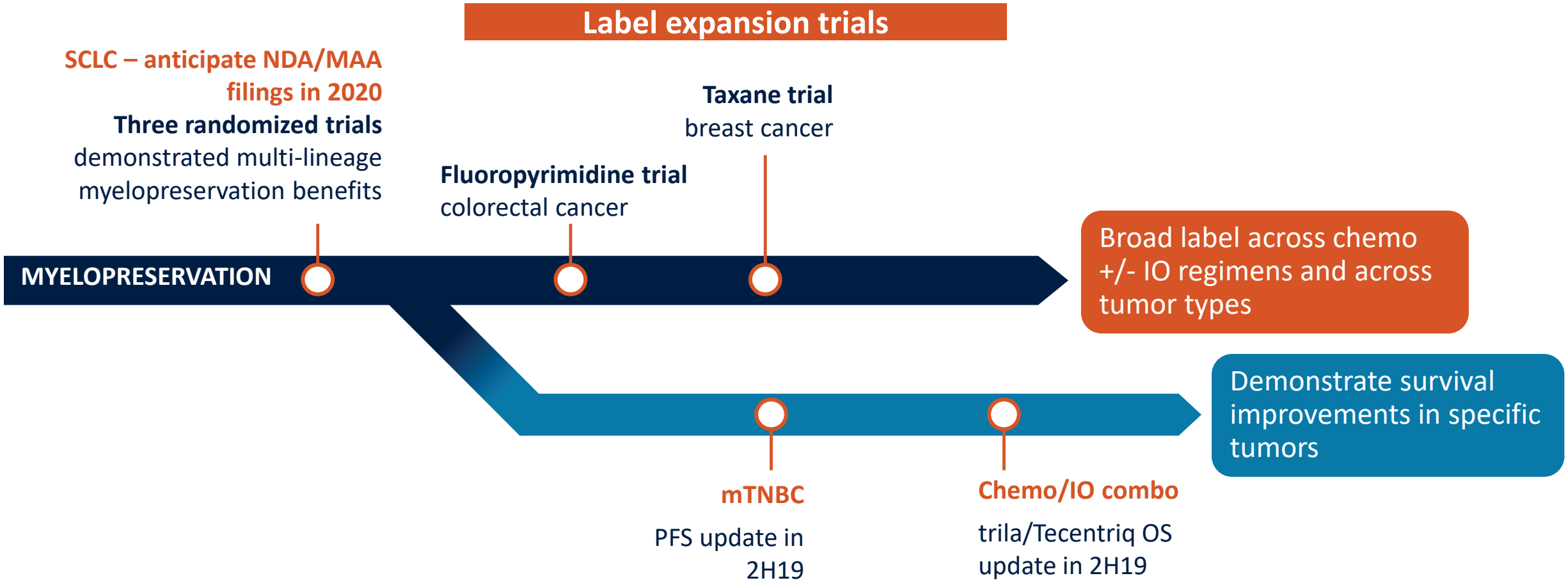
- End-of-Phase 2 meetings support direct move to regulatory filings in SCLC
- **Anticipate NDA submission in U.S. and MAA filing in Europe in 2020**
- Exploring partnerships to maximize access for patients globally

Myelopreservation: consistent bone marrow protection across three SCLC trials



Pipeline-in-a-program: exploring multiple tumor/chemo regimens

Establish trilaciclib as first-in-class myelopreservation agent



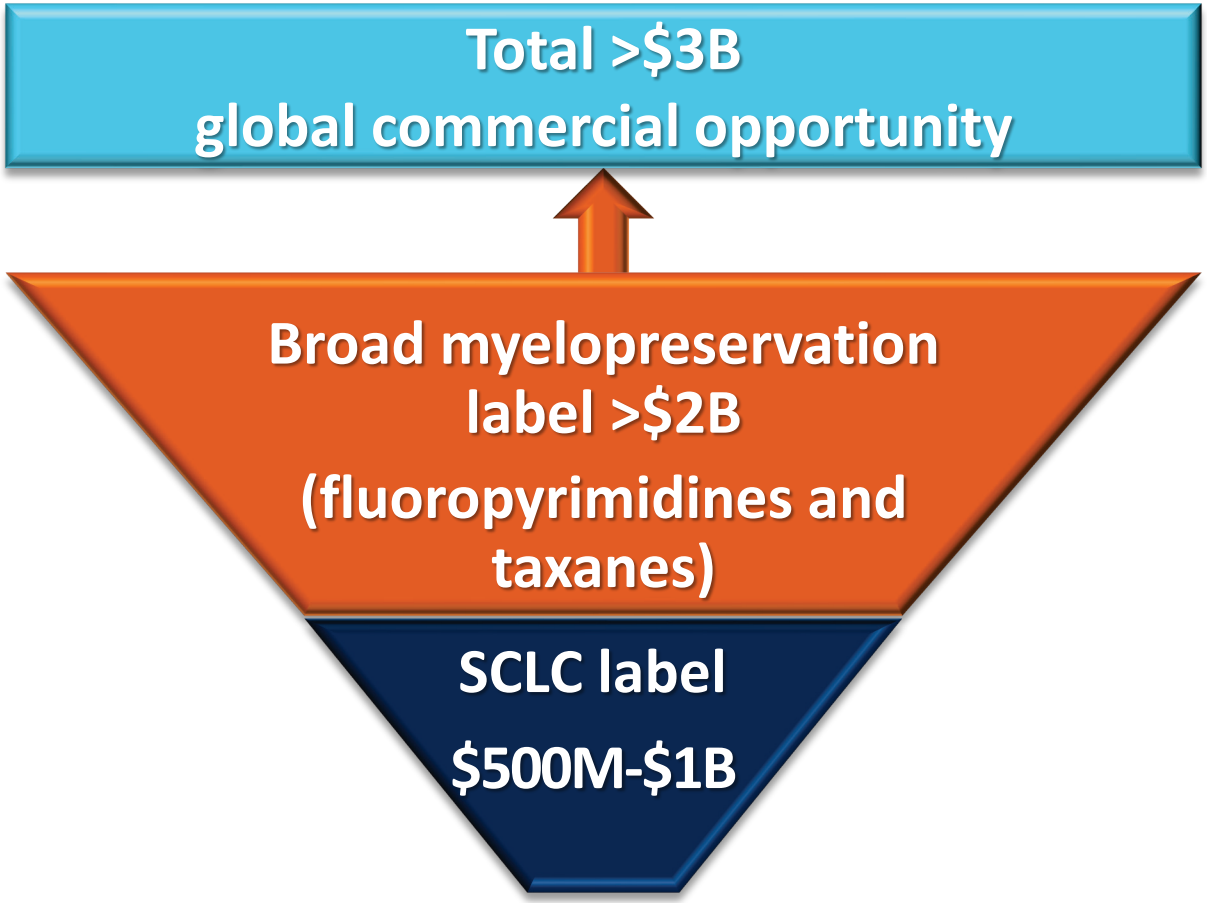
Preliminary PFS improvement in metastatic TNBC*

REGIMEN/TRIAL DESIGN	PRELIMINARY MEDIAN PROGRESSION-FREE SURVIVAL (PFS)
gemcitabine/carboplatin (GC) +/- trila 102 patients, randomized, open-label	5.4 months in the GC-only arm 7.9 months in combined GC + trila arms (HR 0.50, p=0.0189)

- Patients on trilaciclib received more chemotherapy cycles than those in the control arm
- Safety profile consistent with previously reported trials
- No trilaciclib-related serious adverse events reported
- Expect to report updated PFS in 4Q19

* Data presented at 2018 San Antonio Breast Cancer Symposium

Substantial global opportunity* to help patients



- ***Patients*** are better served with proactive myelopreservation
- ***Physicians*** anticipate significant use of trilaciclib based on its myelopreservation benefits alone
- ***Payers*** see the multi-lineage benefits of trilaciclib as unique

* Research using TPP defined by data from SCLC trials, interviewed:
100+ physicians and **15+ payors** across **5 countries**

LEROCICLIB DEVELOPMENT UPDATE

Tumor cell proliferation

Lerociclib profile differentiated in CDK4/6i landscape

- Differentiated PK and tolerability profile
- Continuous dosing (no holiday) with fewer dose-limiting toxicities
- Potential for less CBC monitoring, reducing patient & physician burden

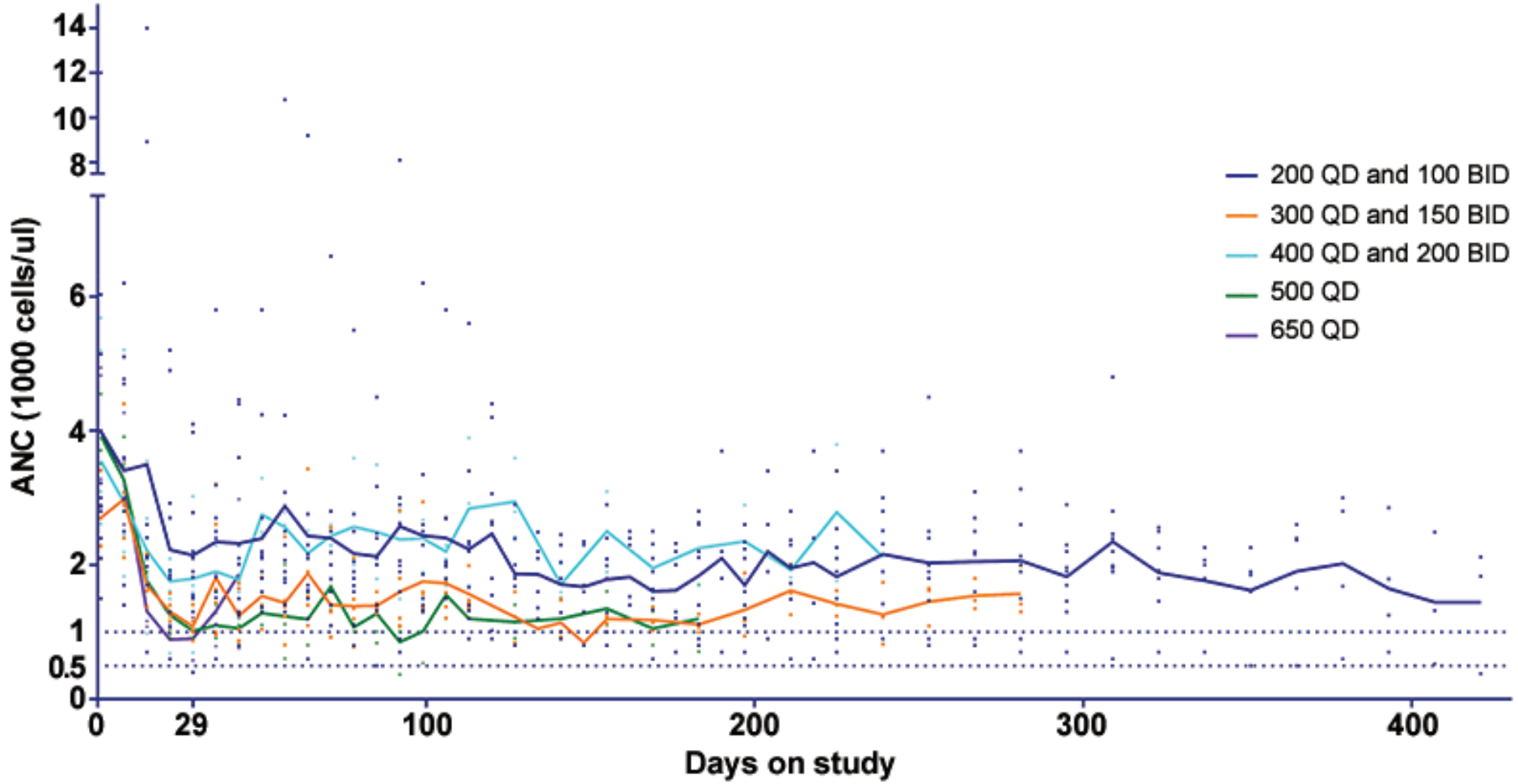
	DOSE-LIMITING NEUTROPENIA	MONITORING REQUIREMENT	DOSING HOLIDAY	QT PROLONGATION	DILI	GRADE 3/4 DIARRHEA	VTE
lerociclib	–	**Potential for less monitoring**	–	–	–	–	–
Ibrance®	X	X	X	–	–	–	–
Kisqali®	X	X	X	X	X	–	–
Verzenio®	X	X	–	–	X	X	X

ER+, HER2- breast cancer fulvestrant combination Phase 1b/2a trial

PRIMARY ENDPOINTS	• Assess safety and dose-limiting toxicities • Identify dose for randomized studies
SECONDARY ENDPOINTS	• PK, PD • ORR, PFS and OS
DESIGN	• Open-label, single-arm; continuous dosing of lerociclib + fulvestrant in ER+, HER2- breast cancer • Phase 1b: dose escalation (QD and BID schedules), 3+3 design • Phase 2a: dose expansion/selection
MILESTONE TIMING	• Phase 1b dose escalation completed; preliminary data presented at ASCO 2018 • **Anticipate reporting additional Ph 1b data and dose selection in 4Q19**

Continuously dosed lerociclib: promising early data

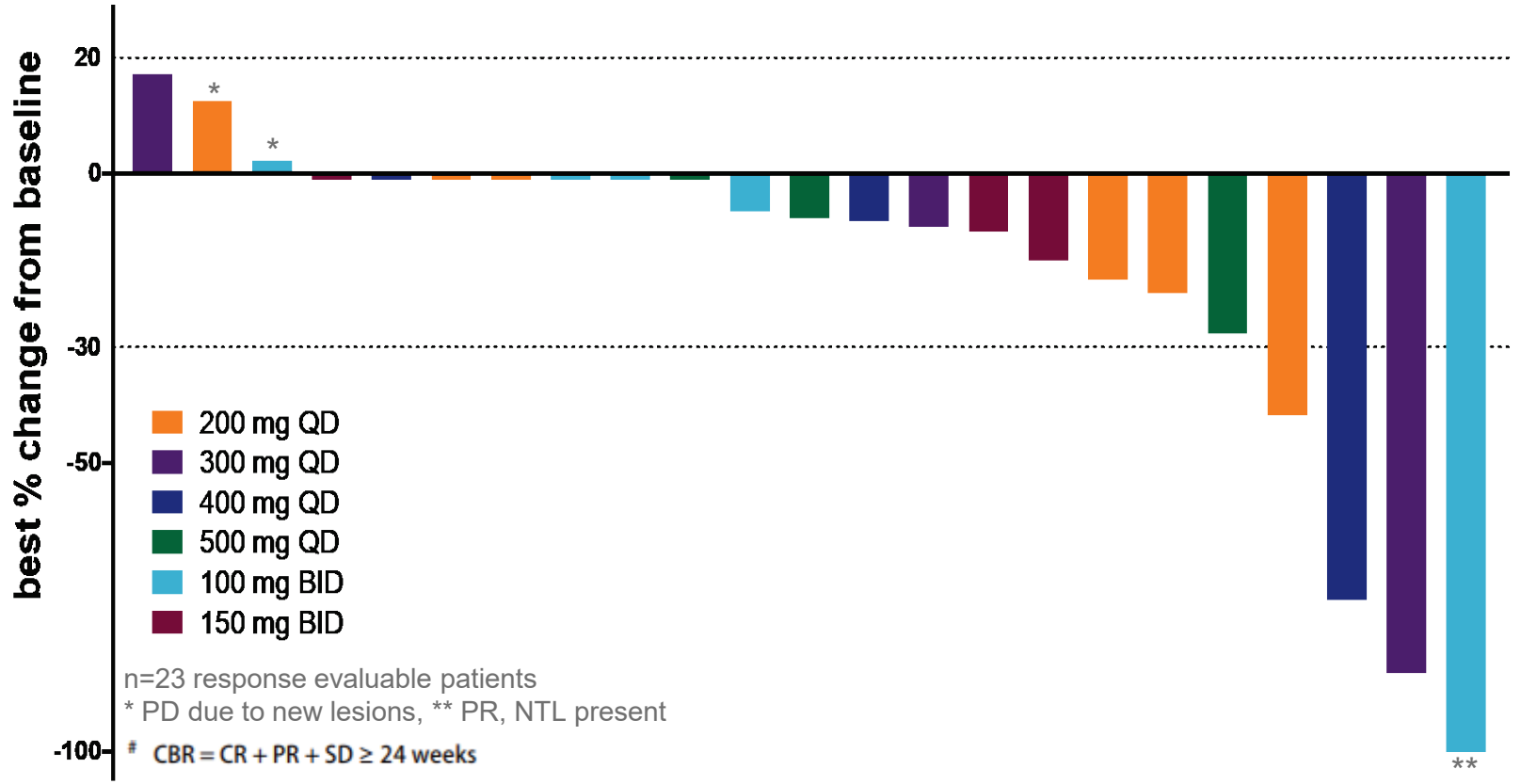
Potential for less monitoring based on continuous dosing with less Gr 4 neutropenia



* Data presented at 2018 ASCO Annual Meeting

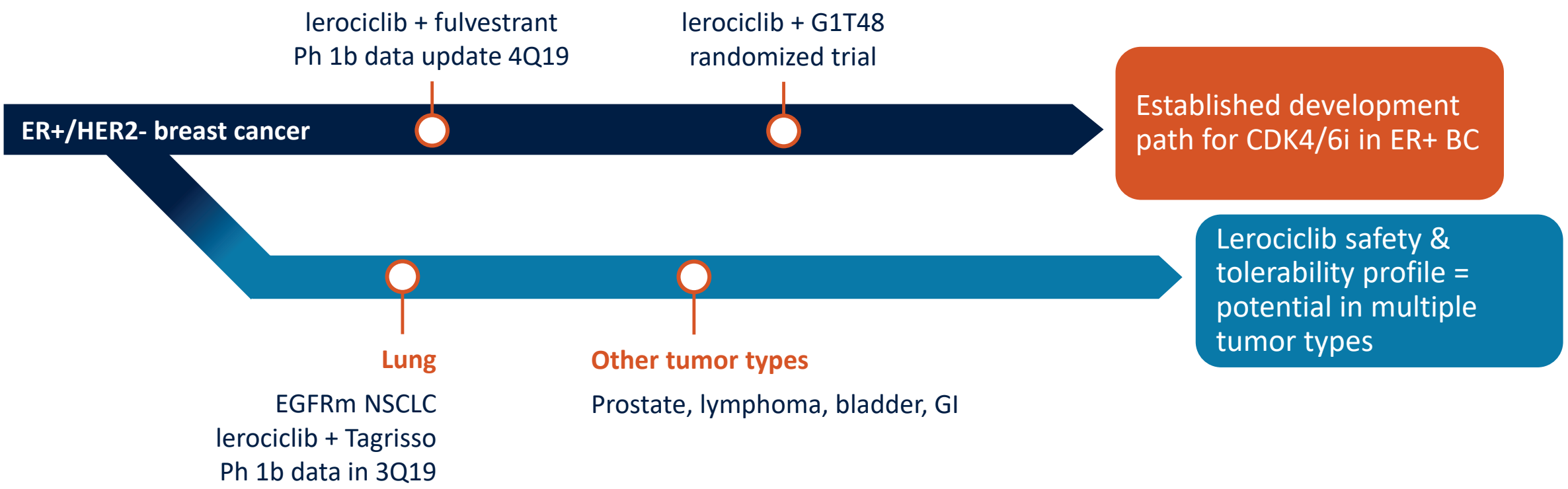
Continuously dosed lerociclib: promising early data

Anti-tumor activity at all dose levels



* Data presented at 2018 ASCO Annual Meeting; efficacy data updated to account for one patient with non-measurable disease at baseline

Potential combination regimens in multiple indications



Lerociclib: key takeaways

1

Differentiated oral CDK4/6i

- Less dose-limiting neutropenia with potential for less frequent blood count monitoring
- Favorable tolerability profile = “partner of choice” in combo regimens

2

Opportunity in BC and other indications

- Additional data and dose selection anticipated in 2H19
- Randomized trial initiating in 2020, pending Ph 2 data

3

Efficient clinical/ regulatory pathway

- Established development parameters for CDK4/6i therapies in breast cancer

G1T48 (ORAL SERD) UPDATE

Tumor cell dissolution

G1T48: key takeaways

1

Established need for oral SERD

- > 300,000 women in U.S. and Europe diagnosed with ER+, HER2- BC each year
- Intra-muscular (IM) SERD fulvestrant is effective but not optimal treatment

2

Potential for oral SERD

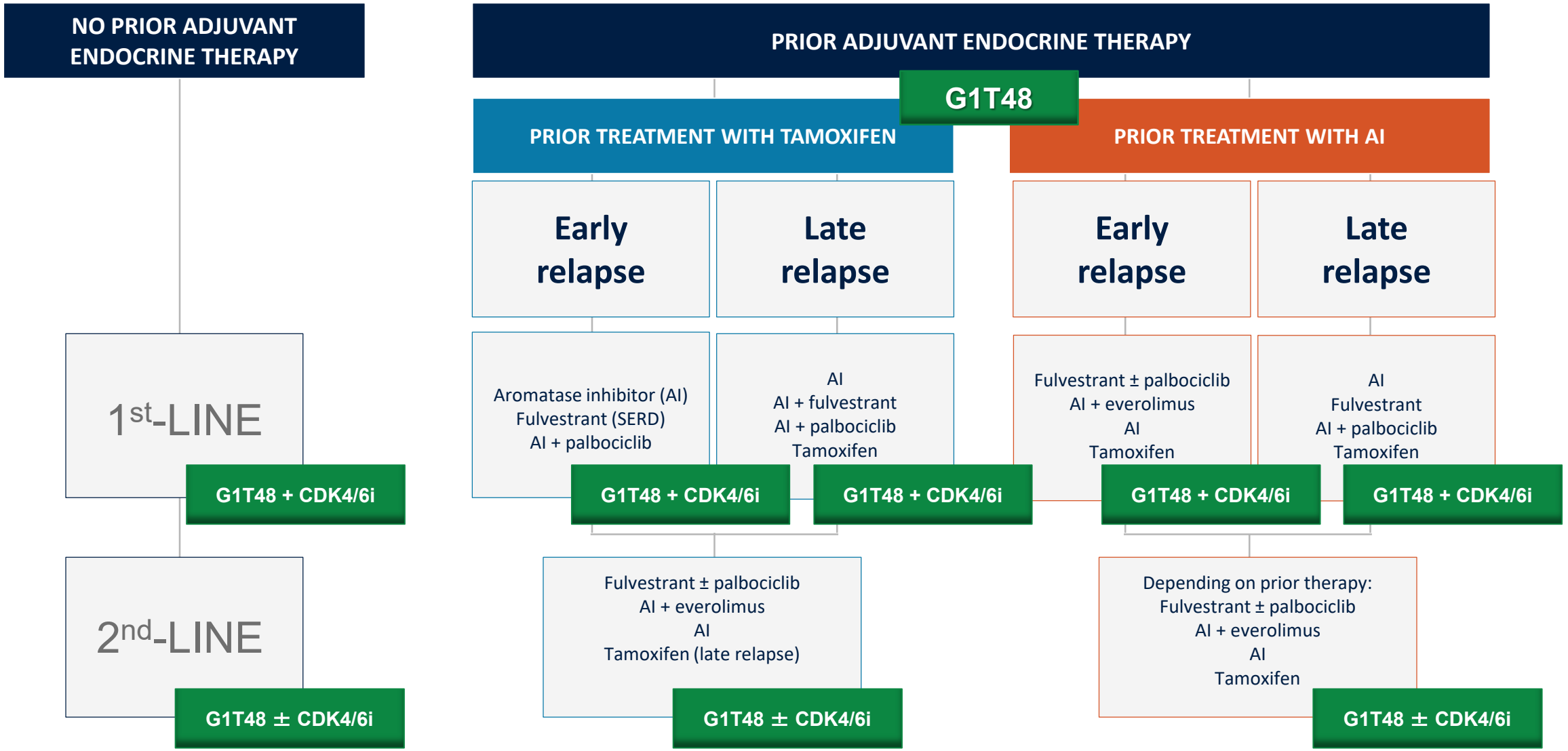
- **Oral delivery provides opportunity to move SERD into earlier lines of therapy**
- Monotherapy and combination regimens

3

G1T48: potential best-in-class oral SERD

- Differentiated chemistry, favorable tolerability
- **Encouraging early data – accelerating program**
- Expect initiation of randomized monotherapy and CDK4/6i combination trials in 2020

ASCO guidelines for ER+ mBC: opportunity across multiple lines of therapy

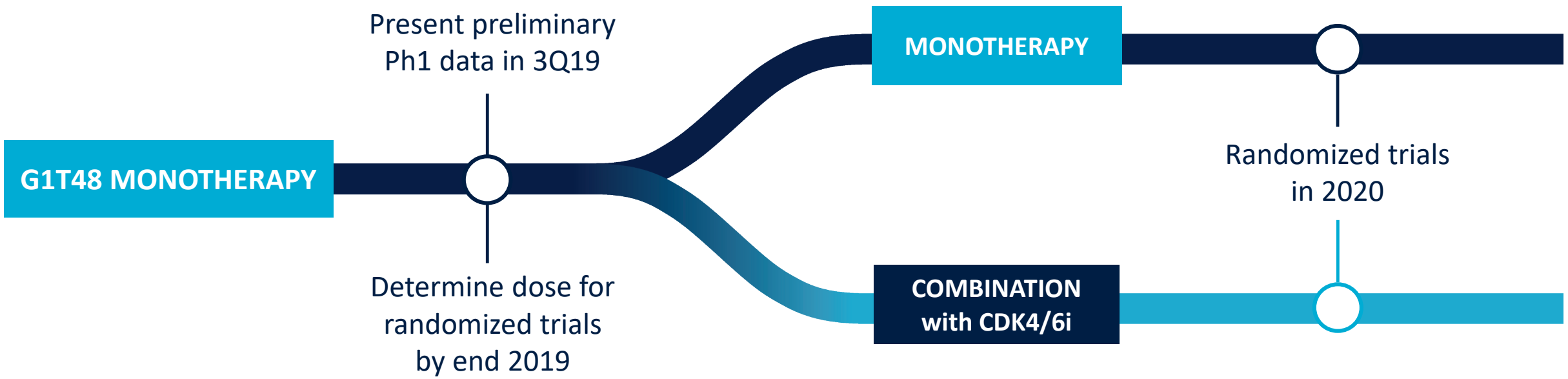


Adapted from Rugo et al JCO 2016

ER+, HER2- breast cancer
Phase 1/2a trial

PRIMARY ENDPOINTS	• Assess safety and dose-limiting toxicities • Identify dose for randomized studies
SECONDARY ENDPOINTS	• PK, PD • ORR and OS • Food effect on bioavailability
DESIGN	• Open-label, ER+, HER2- breast cancer, enrolling up to 104 patients • Phase 1: dose-finding, G1T48 monotherapy in 2nd/3rd-line setting • Phase 2a: dose expansion/selection
MILESTONE TIMING	• Phase 1 enrollment ongoing • **Anticipate POC Ph 1 data 3Q19**

Development pathways leading to a standard-of-care label



✓ *Potential to benefit ER+BC patients across multiple lines of therapy*

Catalysts across all programs in 2019/2020

	INDICATION/COMBO	3Q19	4Q19	2020
trilaciclib IV - CDK4/6i	**1st-line SCLC (+ etop/carbo)**			NDA/MAA submissions for myelopreservation in SCLC + label expansion trials
	1st-line SCLC (+ etop/carbo/Tecentriq)	Present additional Phase 2 data		
	2nd/3rd-line SCLC (+ topotecan)			
	Metastatic TNBC (+ gem/carbo)		Present additional Phase 2 data	
lerociclib Oral - CDK4/6i	**ER+, HER2- BC (+ Faslodex)**		Present additional Phase 1b data	Additional data presentations + randomized trials
	EGFRm NSCLC (+ Tagrisso)	Present preliminary Phase 1b data		
G1T48 Oral - SERD	**ER+, HER2- BC**	Present preliminary monotherapy Phase 1 data		Initiate randomized monotherapy and CDK4/6i combination trials

Strong balance sheet: $348M at March 31, 2019

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