G1 THERAPEUTICS

Next Generation Cancer Therapies

H.C. Wainwright Annual Global Investment Conference

September 9, 2019

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 news release 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 presentation. 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 presentation 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.

Small molecule therapeutics for big oncology indications

First-in-class therapy
to improve outcomes for patients treated with chemotherapy

Potential best-in-class
oral SERD
for the treatment of ER+ breast cancer

Differentiated oral CDK4/6 inhibitor
for more effective combination treatment

$325M cash and investments
at end of 2Q 2019

Small molecule therapeutics for big oncology indications

Trilaciclib

- ✓ Breakthrough Therapy Designation; filing for approval in SCLC in 2020
- ✓ Topline OS benefit in mTNBC; data @ ESMO
- ✓ Registrational trials in additional tumors / chemo regimens in 2020

G1T48

- ✓ Differentiated chemistry, favorable tolerability
- ✓ Preliminary data @ ESMO
- ✓ Initiating pivotal combo trial with CDK4/6i in 2020

Lerociclib

- ✓ Less neutropenia and favorable tolerability – advantages in adjuvant setting
- ✓ Data + dose identification in 4Q19 to support pivotal trials
- ✓ Initiating pivotal BC trial in 2020

All three therapies have potential to **improve outcomes for women with breast cancer** and be used in early stages of disease

Catalysts across all programs in 2019/2020

	INDICATION/COMBO	3Q19	4Q19	2020
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	1st-line SCLC (+ etop/carbo/Tecentriq®)	Present additional Phase 2 data @ ESMO		
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	EGFRm NSCLC (+ Tagrisso®)	Present preliminary Phase 1b data @ ESMO		
G1T48 Oral - SERD	ER+, HER2- BC	Present preliminary Phase 1 data @ ESMO		Pivotal CDK4/6i combination trial

Well funded with $325M cash at end of 2Q19; anticipate 2019 YE cash of $260-270M

TRILACICLIB DEVELOPMENT UPDATE

Hematopoietic stem and progenitor cells (HSPCs)

Trilaciclib: first-in-class therapy to improve outcomes for patients receiving chemotherapy

CURRENT TREATMENT PARADIGM:

Chemotherapy-induced myelosuppression negatively impacts patient outcomes

Suppressed immune system function

Neutropenia and risk of infection: G-CSF use, associated bone pain

Chemotherapy dose delays, hospitalizations and unscheduled office visits

Anemia and fatigue: ESA usage and RBC transfusions

Thrombocytopenia and risk of bleeding: Platelet transfusions

TRILACICLIB:

Proactively preserve bone marrow and immune system function; myelopreservation and survival benefits

Trilaciclib: improving outcomes for patients 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, burdens HC system

2

Phase 2 program: improved patient outcomes

- Less neutropenia *and* anemia in SCLC
- Reduced G-CSF usage *and* transfusions in SCLC
- Topline OS benefit in mTNBC: late-breaker @ ESMO

3

Next steps

- SCLC myelopreservation NDA/MAA filings in 2020
- Initiate registrational trials in additional tumors / chemo regimens in 2020
- Exploring partnerships to maximize access for patients globally

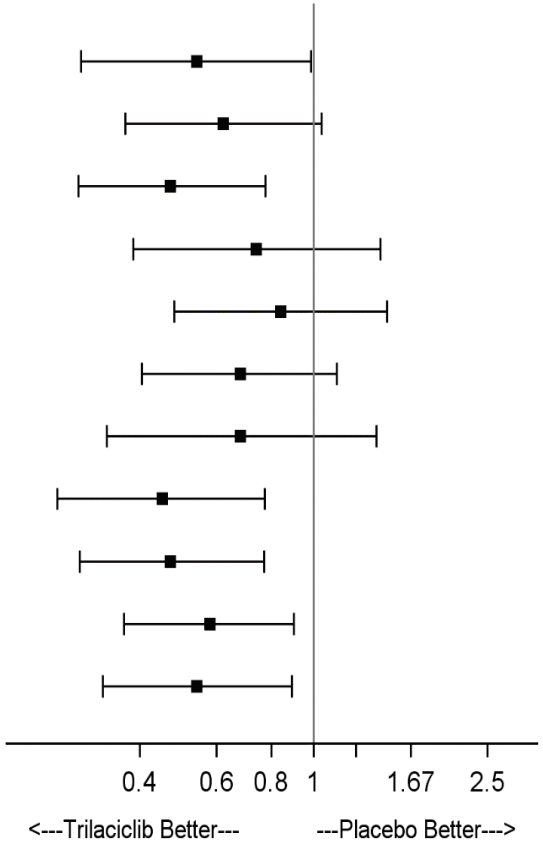
Integrated analysis for three randomized SCLC trials: robust myelopreservation - neutrophils, RBCs, platelets

	PLACEBO + CHEMOTHERAPY	TRILACICLIB + CHEMOTHERAPY	
Patients (intent-to-treat population)	120	125	P-VALUE[+]
primary endpoints: Mean duration (in days) of severe neutropenia in cycle 1 (SD)	4 (5.2)	1 (2.3)	**<0.0001**
primary endpoints: Occurrence of severe neutropenia	64 (53.3%)	16 (12.8%)	**<0.0001**
Occurrence of RBC transfusions on/after 5 weeks	32 (26.7%)	19 (15.2%)	**0.0207**
Cumulative incidence RBC transfusions on/after 5 wks: event rate per 100 wks	3.2	1.5	**0.0020**
Occurrence of Grade 3/4 anemia	39 (32.5%)	26 (20.8%)	**0.0188**
Occurrence of Grade 3/4 thrombocytopenia	44 (36.7%)	26 (20.8%)	**0.0081**

[+] 2-sided p-value; data presented at MASCC 2019

PRO data in SCLC: trilaciclib improves the patient experience

Domain	No. of Events TRI/PLA	Median TTD, Months TRI/PLA	Hazard Ratio [95% CI]
FACT-G	23/40	NYR/NYR	0.54 [0.29;0.99]
PWB	32/51	NYR/5.16	0.62 [0.37;1.04]
FWB	31/55	7.62/3.78	0.47 [0.29;0.78]
EWB	23/27	NYR/NYR	0.74 [0.39;1.42]
SWB	32/34	7.85/NYR	0.84 [0.48;1.47]
FACT-L	31/45	NYR/7.16	0.68 [0.41;1.13]
LCS	20/27	NYR/NYR	0.68 [0.34;1.39]
L-TOI	24/48	NYR/5.62	0.45 [0.26;0.77]
FACT-An	31/58	NYR/3.48	0.47 [0.29;0.77]
Fatigue	39/61	7.03/2.33	0.58 [0.37;0.90]
Anemia TOI	33/55	7.20/3.78	0.54 [0.33;0.89]



Threshold=3 for PWB,SWB,EWB,FWB,LCS and Fatigue, =6 for FACT-L total, L-TOI and An-TOI, =7 for FACT-G total and FACT-An total

- Trilaciclib improves symptoms and functions across multiple parameters over time compared to placebo
- Statistically significant improvements shown in:
  - fatigue
  - anemia
  - functional wellbeing

*Pooled analysis across all three SCLC studies; data presented at MASCC 2019

Updated anti-tumor efficacy results in metastatic TNBC: statistically significant improvement in overall survival (OS)

TRIAL DESIGN: 102 patients, randomized, open-label; gemcitabine/carboplatin (GC) control group and two trilaciclib + GC groups

Preliminary OS data showed statistically significant improvement for each of the trilaciclib + GC groups versus those patients receiving GC alone

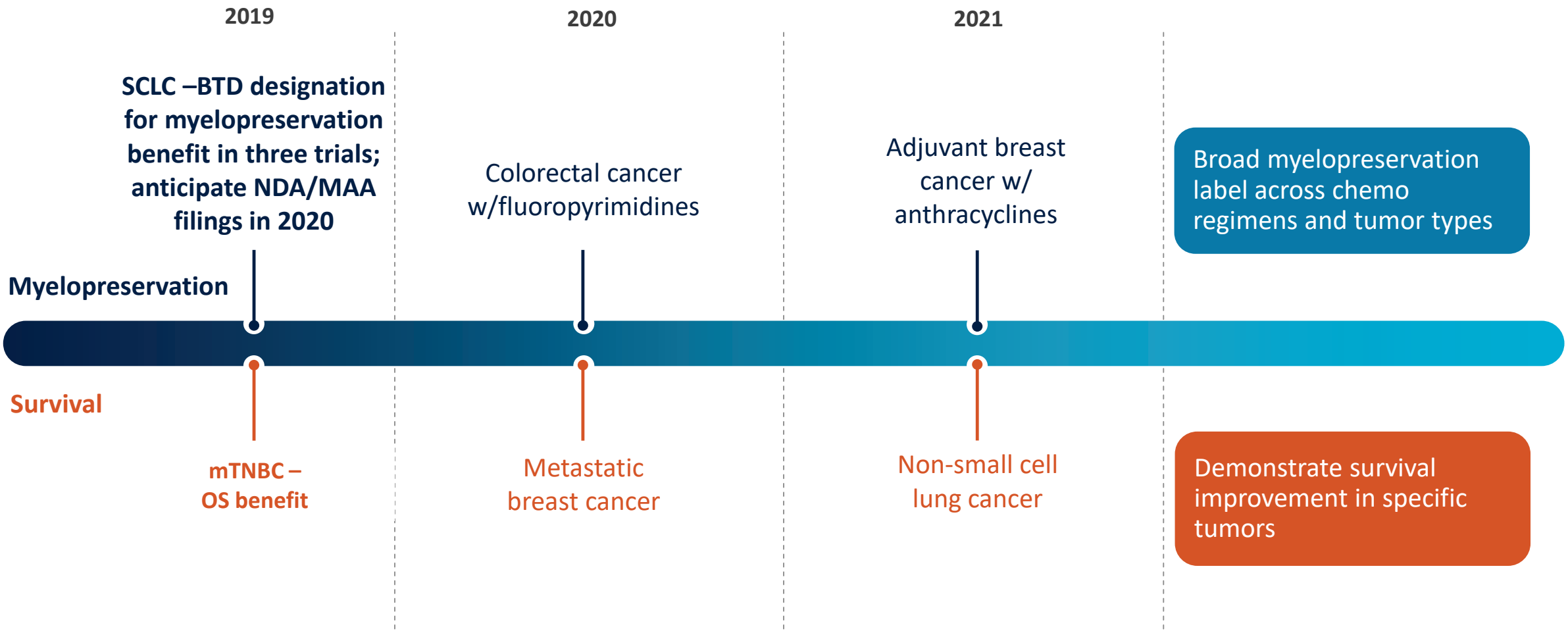
ORR and PFS data were consistent with results presented at SABCS 2018; control group consistent with historical GC data

Safety and tolerability consistent with previously reported data; no serious adverse events attributed to treatment with trilaciclib

Data to be presented @ ESMO: late-breaker oral presentation

Advancing multiple tumor/chemo regimens

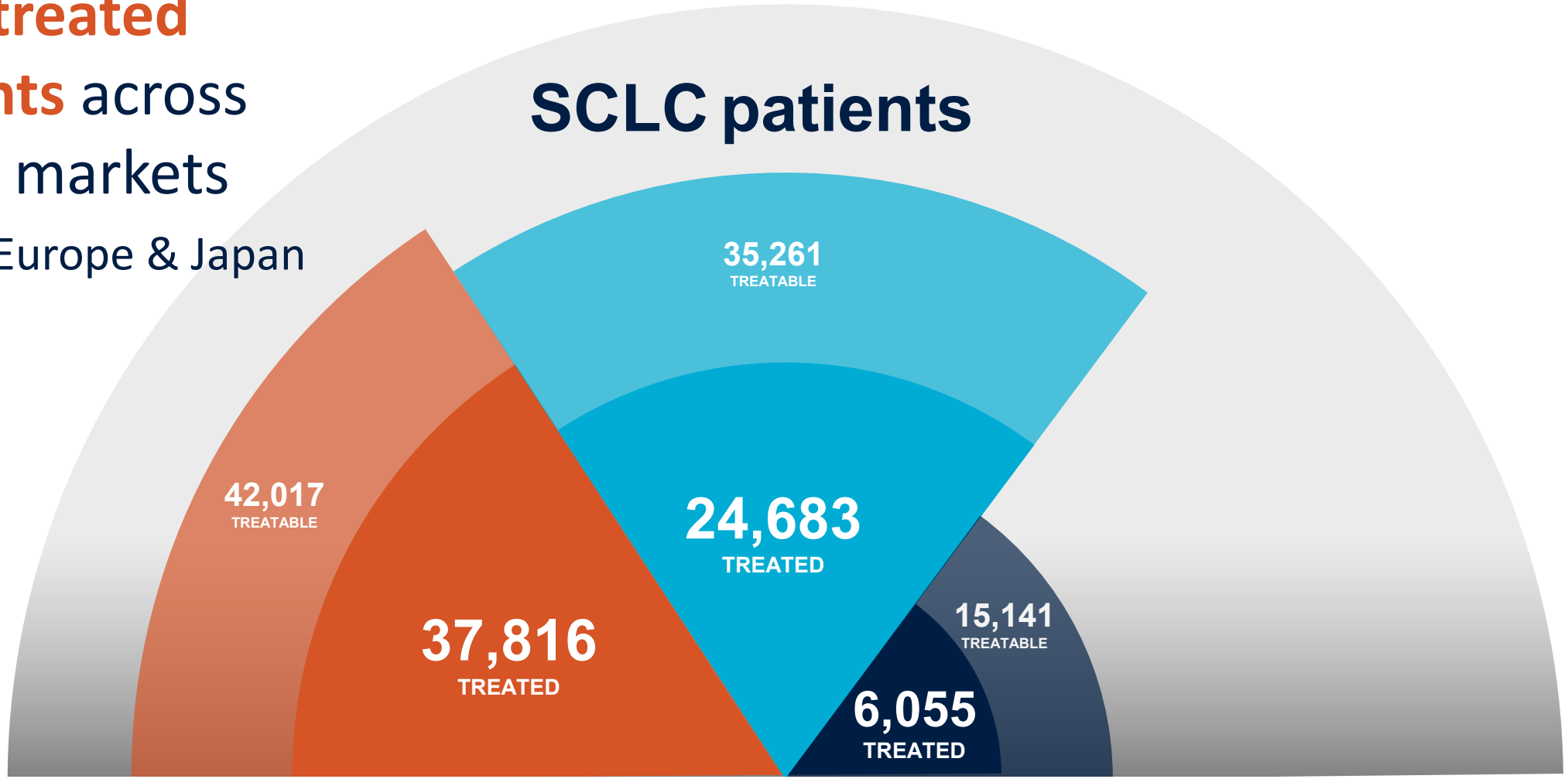
Establish trilaciclib as first-in-class therapy with benefits in myelopreservation and survival



Trilaciclib could benefit a significant number of SCLC patients

~68k treated patients across major markets

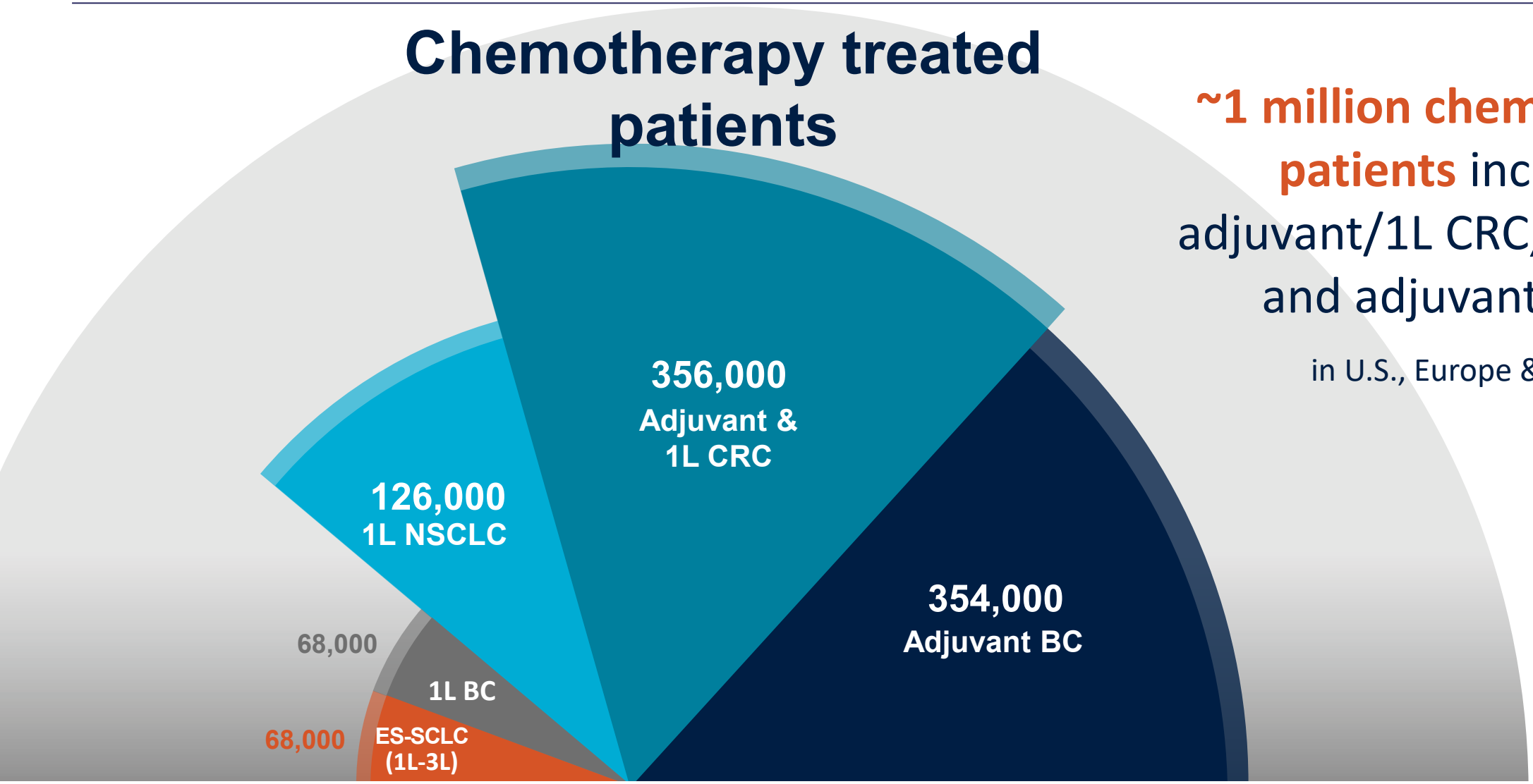
in U.S., Europe & Japan



1L 90% TREATMENT RATE **2L** 70% TREATMENT RATE **3L** 40% TREATMENT RATE

*2030 estimates, secondary epi source & ZS forecast model

Potential to benefit a significant number of patients beyond SCLC



~1 million chemo treated patients including adjuvant/1L CRC, 1L NSCLC, and adjuvant/1L BC

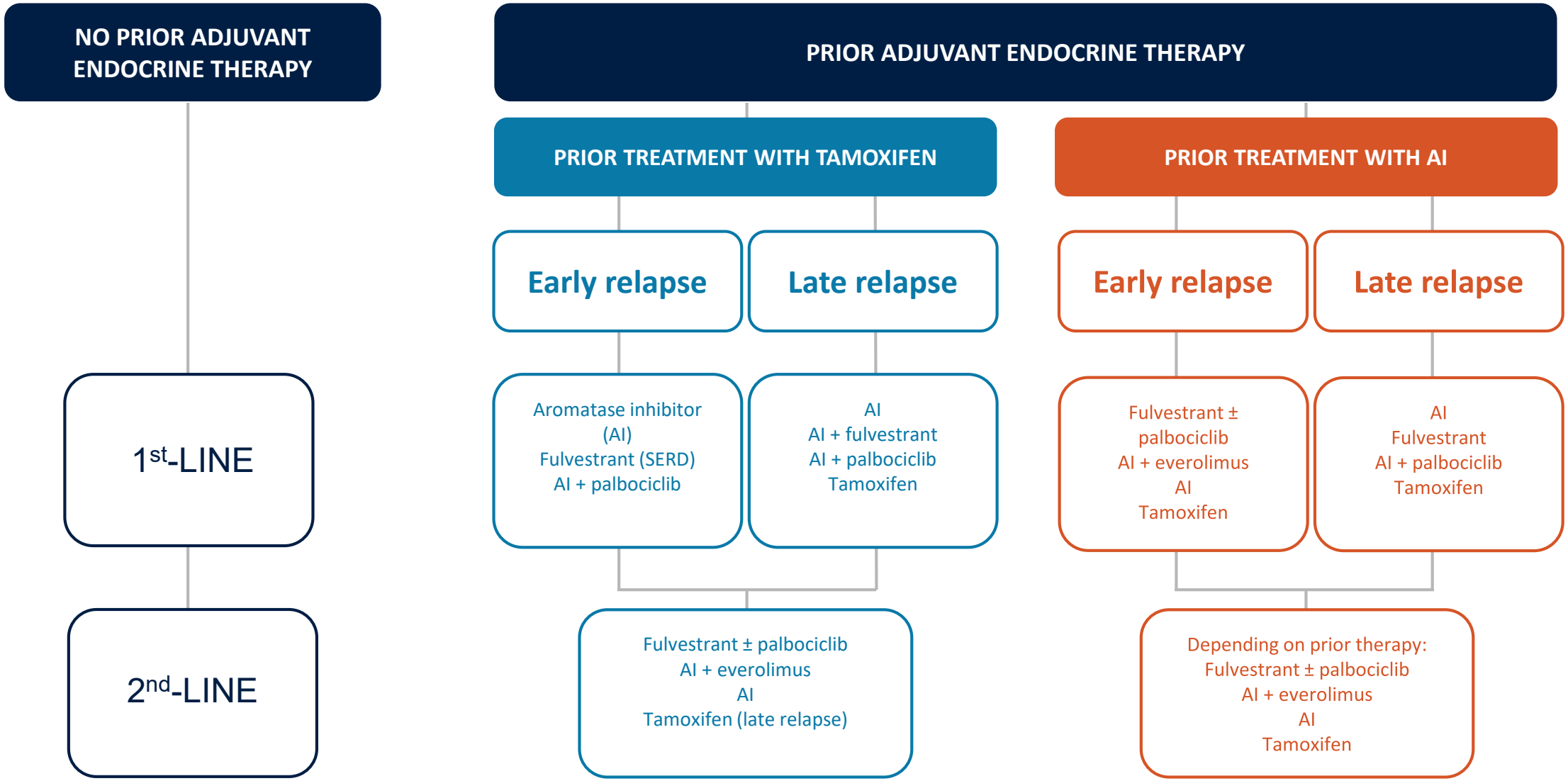
in U.S., Europe & Japan

*Decision Resources Group, 2027 estimates

LEROCICLIB & G1T48:
Early lines of treatment in breast cancer

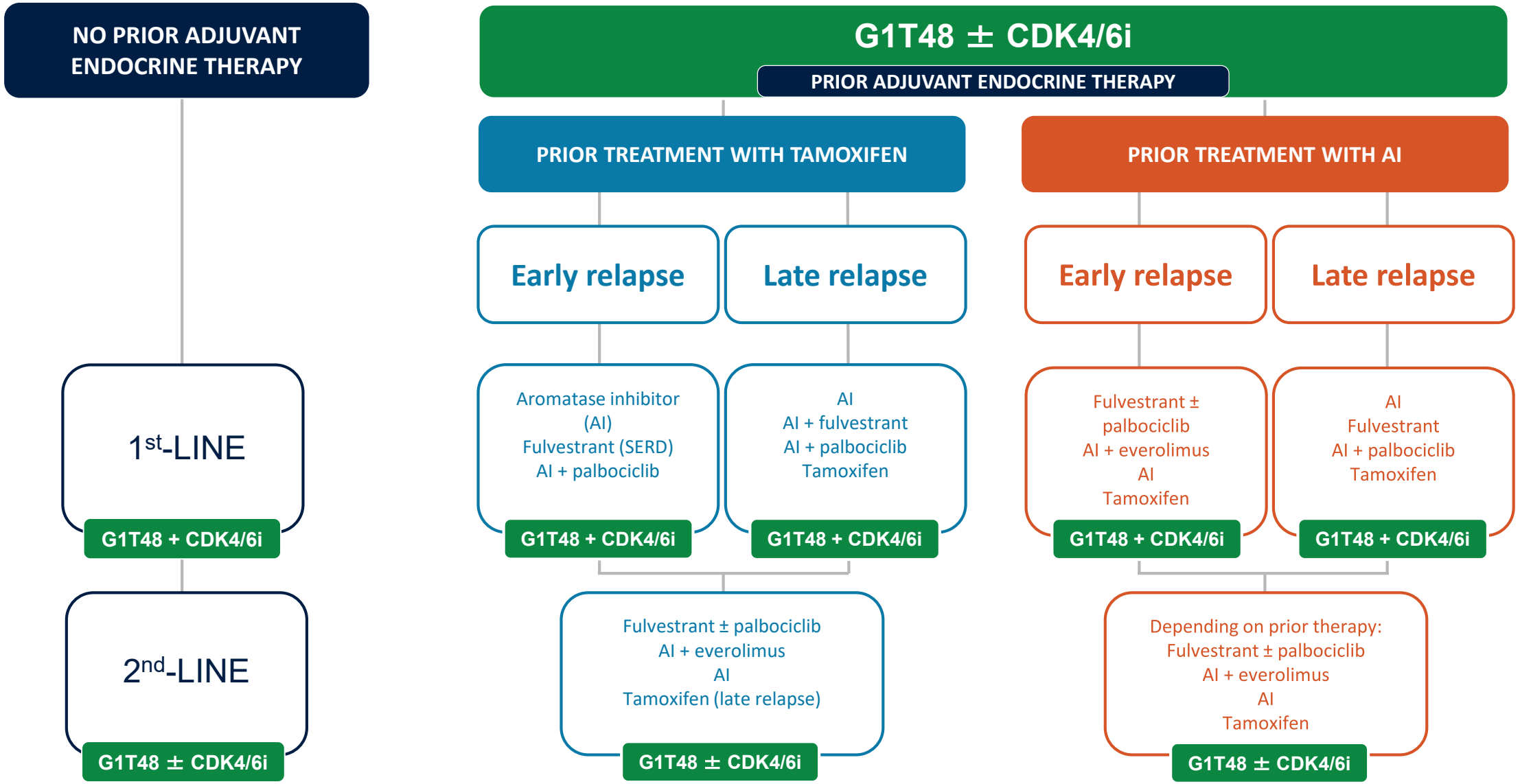
Tumor cell proliferation

Current ASCO guidelines for ER+ mBC



*Adapted from Rugo et al JCO 2016

Opportunity across multiple lines, including adjuvant



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LEROCICLIB DEVELOPMENT UPDATE

Tumor cell proliferation

Lerociclib: differentiated profile in CDK4/6 inhibitor landscape

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

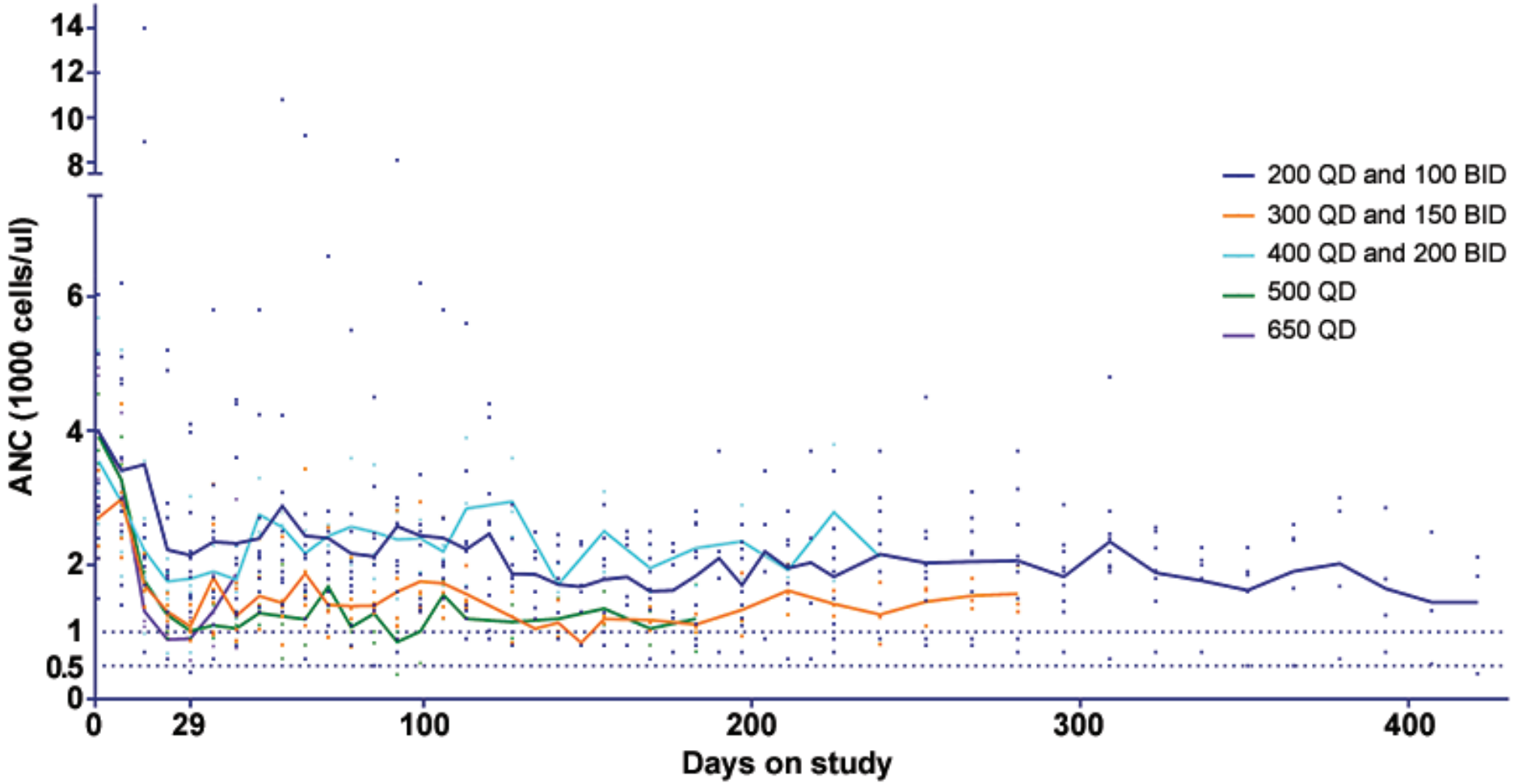
	DOSE-LIMITING NEUTROPENIA	MONITORING REQUIREMENT	DOSING HOLIDAY	QT PROLONGATION	DILI	GRADE 3/4 DIARRHEA	VTE
lerociclib	–	**Potential for less monitoring**	–	–	–	–	–
Ibrance®	+	+	+	–	–	–	–
Kisqali®	+	+	+	+	+	–	–
Verzenio®	+	+	–	–	+	+	+

ER+, HER2- breast cancer lerociclib/fulvestrant combination Phase 1b/2a trial: enrollment completed – data 4Q19

PRIMARY ENDPOINTS	• Assess safety and dose-limiting toxicities • Identify dose for pivotal trial
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	• Preliminary Phase 1b data presented at ASCO 2018 • Phase 2a enrollment completed • **Anticipate reporting Phase 1/2 data and dose selection in 4Q19**

Continuously dosed lerociclib: less neutropenia

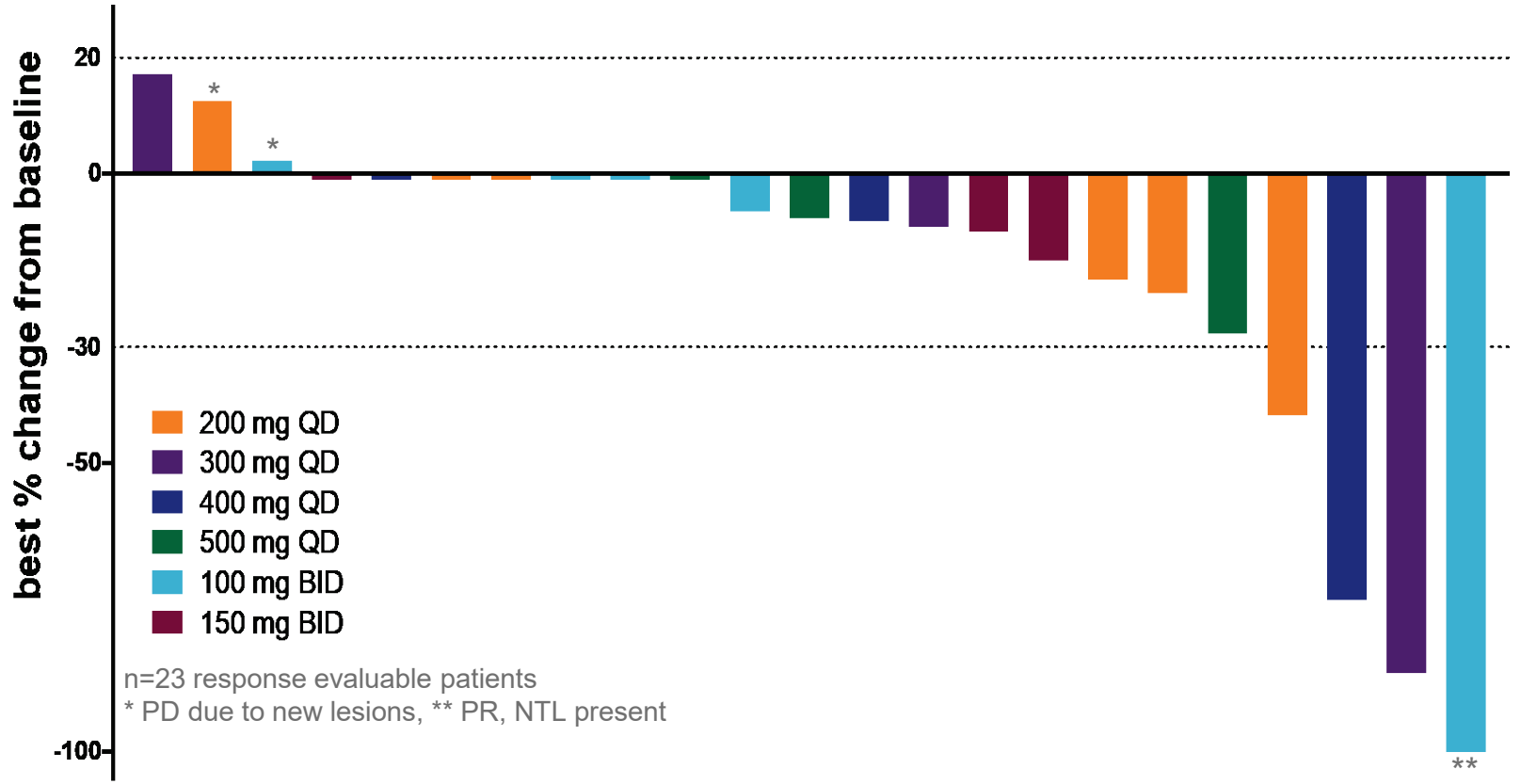
Less Gr 4 neutropenia: opportunity to reduce patient monitoring



Data presented at 2018 ASCO Annual Meeting

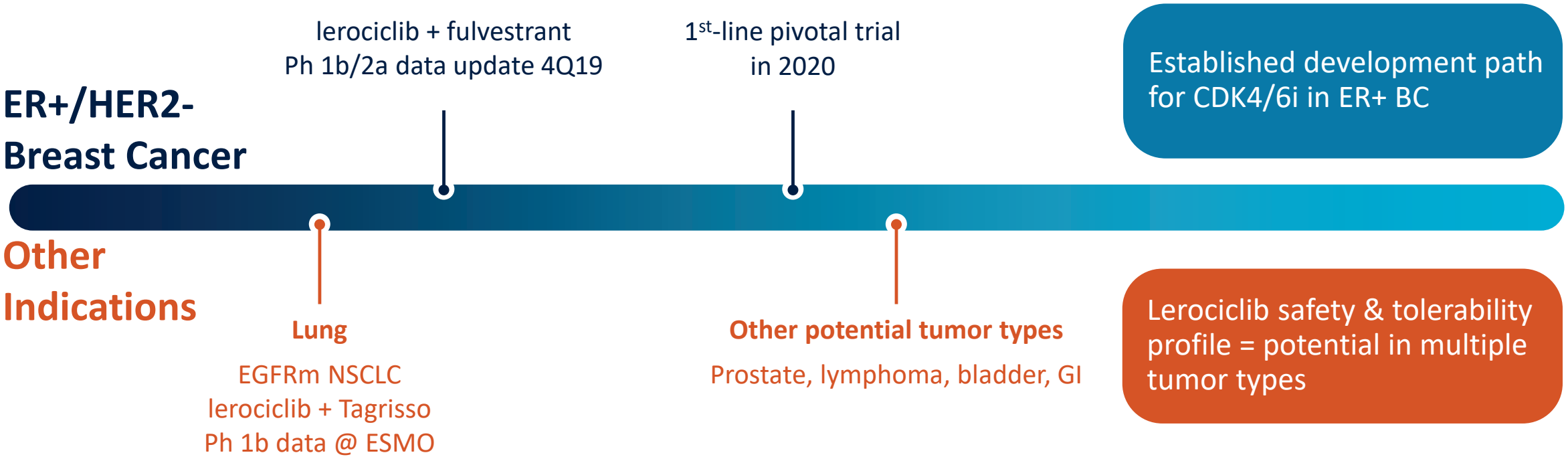
Continuously dosed lerociclib: promising efficacy

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; potential for less frequent blood count monitoring
- Favorable GI tolerability profile
- Advantages in the adjuvant BC setting

2

Opportunity in BC and other indications

- Additional data and dose selection in 4Q19
- Initiating pivotal BC trial in 2020
- Ongoing trial in EGFRm NSCLC in combination with Tagrisso

3

Efficient BC 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
- Intramuscular (IM) SERD fulvestrant is effective but not indicated for adjuvant setting

2

Potential for oral SERD

- Oral delivery provides opportunity to move SERD into earlier lines of therapy, including adjuvant settings
- Monotherapy and combination regimens

3

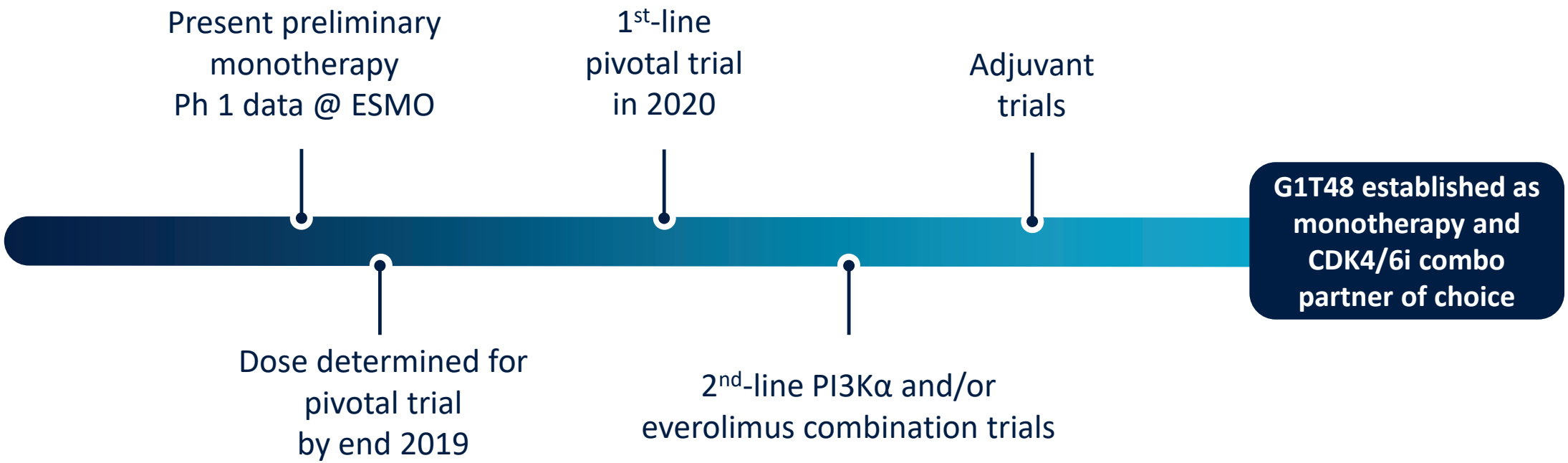
G1T48: potential best-in-class oral SERD

- Differentiated chemistry, favorable tolerability
- Encouraging early data – presentation @ ESMO
- Initiating pivotal CDK4/6i combination trial in 2020

G1T48: ER+, HER2- breast cancer Phase 1/2a trial

PRIMARY ENDPOINTS	• Assess safety and dose-limiting toxicities • Identify dose for pivotal trial
SECONDARY ENDPOINTS	• PK, PD (ctDNA, [18F] FES PET, CTCs) • ORR, PFS and OS • Food effect on bioavailability
DESIGN	• Open-label, ER+, HER2- breast cancer; heavily pre-treated patient population with prior chemotherapy, CDK4/6i and endocrine therapy • Phase 1: dose-finding, G1T48 monotherapy • Phase 2a: dose expansion/selection
MILESTONE TIMING	• Phase 1 enrollment completed; Phase 2a enrolling • **POC Ph 1 data @ ESMO**

Development pathways leading to a standard-of-care label



- ✓ *Potential to benefit ER+BC patients across multiple lines of therapy*
- ✓ *Opportunity for use in earlier lines of therapy, including adjuvant*

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