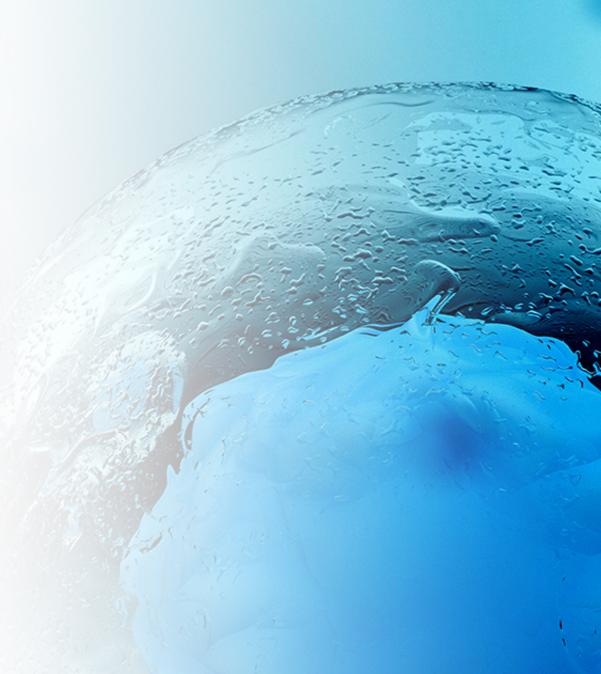


Optimizing Chemotherapy, Advancing Survival

40th Annual J.P. Morgan Healthcare Conference

January 10-13, 2022

Presentation time: Wednesday January 12, 1:30 PM ET



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, those relating to expectations for the commercial launch of COSELA™ (trilaciclib), the therapeutic potential of COSELA (trilaciclib), our ability to accelerate adoption of COSELA among top tier accounts, our ability to generate data to maximize trilaciclib's applicability to future treatment paradigms, rintodestrant's potential as an oral SERD, and our reliance on partners to develop and commercial licensed products. In addition, COSELA (trilaciclib) may fail to achieve the degree of market acceptance for commercial success, and the impact of pandemics such as COVID-19 (coronavirus), are based on our expectations and assumptions as of the date of this presentation. Each of these forward-looking statements involves risks and uncertainties. Factors that may cause our actual results to differ from those expressed or implied in the forward-looking statements in this presentation are discussed in our filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" sections contained therein and include, but are not limited to, our ability to complete a successful commercial launch for COSELA (trilaciclib); our ability to complete clinical trials for, obtain approvals for and commercialize additional indications of COSELA and any of our product candidates other than COSELA (trilaciclib); our 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 commercial-stage company; and market conditions. Rintodestrant and lerociclib are not approved by the FDA. The safety or effectiveness of rintodestrant and lerociclib have not been established by the FDA. Except as required by law, we assume no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

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G1 Therapeutics

Trilaciclib Has Potential to be a Transformational Therapy



- Commercializing COSELA™ in extensive-stage small cell lung cancer
 - Only FDA approved product offering proactive multilineage myeloprotection
 - Experiencing a variety of tailwinds, including excellent reimbursement
- New G1 sales team focused on improving customer access and pace of adoption
- Unique, transient CDK4/6 inhibition enables "pipeline-in-a-molecule" development
 - Proactive multilineage myeloprotection increases tolerance for chemotherapy
 - Protects immune system from damage from various chemotherapy backbones
 - May improve immune response when combined w/ complementary mechanisms
- Clinical pipeline entering multi-year data-rich period; initial readouts in:
 - 2H 2022: 1L bladder cancer, ADC combination, and MOA Phase 2 data
 - 1H 2023: 1L CRC Phase 3 data
 - 2H 2023: 1L/2L TNBC Phase 3 data
 - 2023+: Additional data from combination trials with novel antitumor agents
- Cash runway into 2024



G1 Therapeutics

Making a Difference in the Lives of People Living with Cancer

I've had lung cancer twice, and the first chemotherapy regimen nearly took my life because my blood cell counts dropped so low. After being hospitalized and rescued, I continued to experience such profound exhaustion that I couldn't shower by myself, and I'd fall when getting out of bed.

I told myself I'd never get chemotherapy again.

This time around, my doctor prescribed a drug that helped protect against the worst of the side effects I'd experienced. I can't say enough about the difference it's made in my life. I have the energy to live my life normally, even though I know I'm still battling the cancer. It's scary to think I almost decided to give up.







G1 in '21

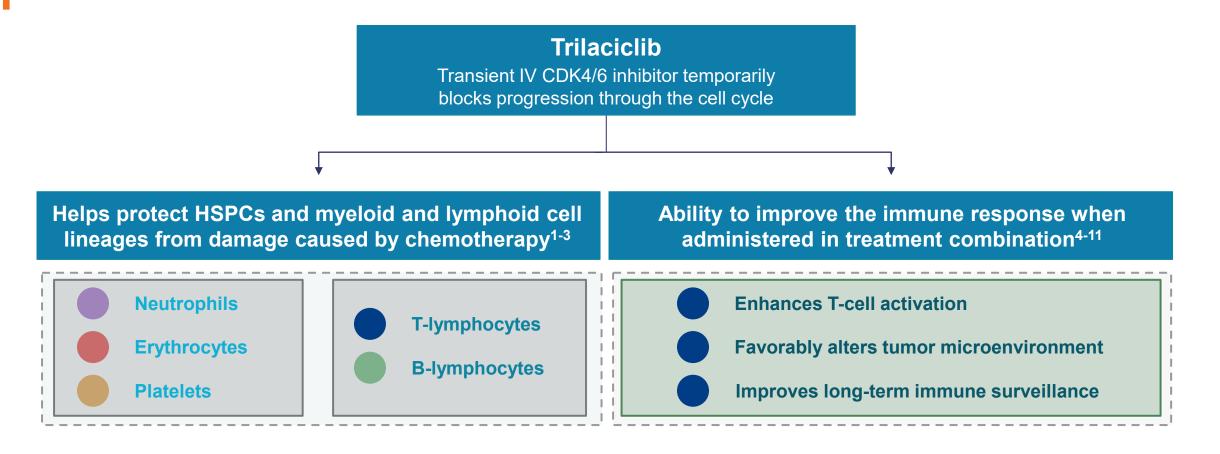
Achievement of Key Goals Positions Company for Pivotal 2022

- Received FDA approval for COSELA™ (trilaciclib) following breakthrough designation and priority review
- ✓ Launched COSELA for U.S. patients with extensive-stage small cell lung cancer in 1Q 2021
- Received dual NCCN guideline endorsement, permanent J-code, and NTAP for COSELA
- Initiated six clinical trials: Two registrational Phase 3 trials and four Phase 2 trials
- Initiated preclinical work to assess potential synergy of trilaciclib with a variety of mechanisms
- Strategically utilized equity and debt financing vehicles to extend cash runway into 2024
- Trilaciclib registration and marketing authorization application accepted by NMPA in China (Simcere)
- Hired / deployed first wave of new G1 COSELA-focused sales force

Strong and decisive execution in 2021 lays foundation for growth in 2022

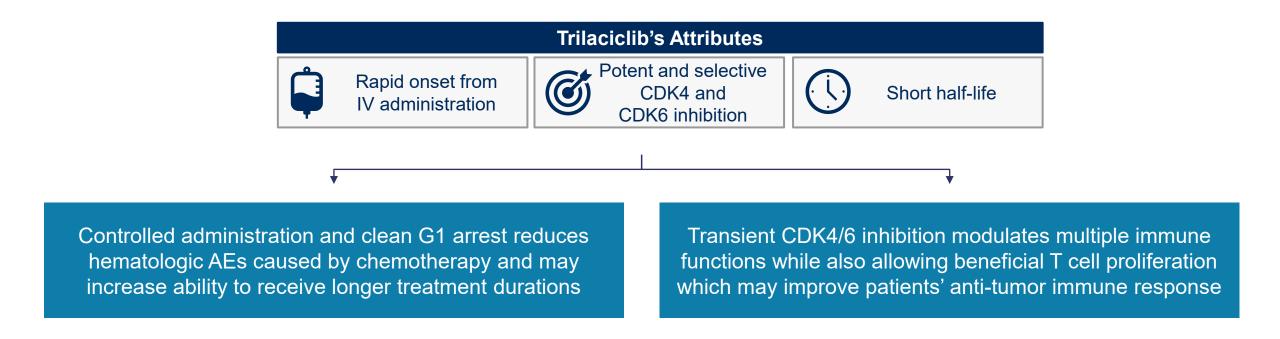


Transient CDK4/6i Leads to Multiple Downstream Effects





Unique Attributes of Trilaciclib



The unique profile of trilaciclib is anticipated to drive robust patient benefits of myeloprotection and/or increased anti-tumor immunity based on treatment setting



Immunomodulatory Properties of Trilaciclib

Immunomodulatory Properties Being Confirmed in Ongoing Studies¹⁻⁸

Enhanced T Cell Activation

- Enhanced NFAT signaling and upregulates activation markers
- Increased IL-2 secretion and upregulation of IL-2 receptors
- Upregulated MHC-1, increasing antigen presentation

Favorably Altered Tumor Microenvironment

- Increased chemokines responsible for T cell trafficking to tumor
- Reduced number and function of immunosuppressive cell populations (Tregs/MDSCs)
- Enhanced IFNy production

Improved Long-term Immune Surveillance

 Increased generation of memory CD8+ T cells

Trilaciclib's meaningful immunomodulatory properties provide strong rationale to further evaluate new treatment combinations across tumor types



1. Tan A, et al. Lancet Oncol. 2019 Sep 28. 2. Zhang J, et al. Nature. 2018;553:91-95. 3. Jerby-Arnon L, et al. Cell. 2018;175:984-997. 4. Goel S, et al. Nature. 2017;548:471-475. 5. Deng J, et al. Cancer Discov. 2018;:216-233. 6. O'Shaugnessy et al., 2020 San Antonio Breast Cancer Symposium (SABCS), Poster #PD1-06. 7: Lai A, et al. Journal for ImmunoTherapy of Cancer 2020;8:e000847. doi:10.1136/jitc-2020-000847. 8. Lelliott EJ, et al. CDK4/6 Inhibition Promotes Antitumor Immunity through the Induction of T-cell Memory. Cancer Discov. 2021 Oct;11(10):2582-2601. DOI: 10.1158/2159-8290.CD-20-1554.

Pursuing Trilaciclib Across Three Growth Platforms

Myeloprotection

- Protecting the bone marrow from the damaging consequences of myelotoxic chemo:
- Common SCLC regimens¹
- 5-FU based regimens²
- Other myelotoxic regimens²

Reduction in Hematologic AEs

Anti-Tumor Efficacy²

- Preserving / activating the immune system with chemo:
- Alternative to I/O treatment
- Following I/O treatment
- In tumors less responsive to I/O

Improved Survival (+ chemo)

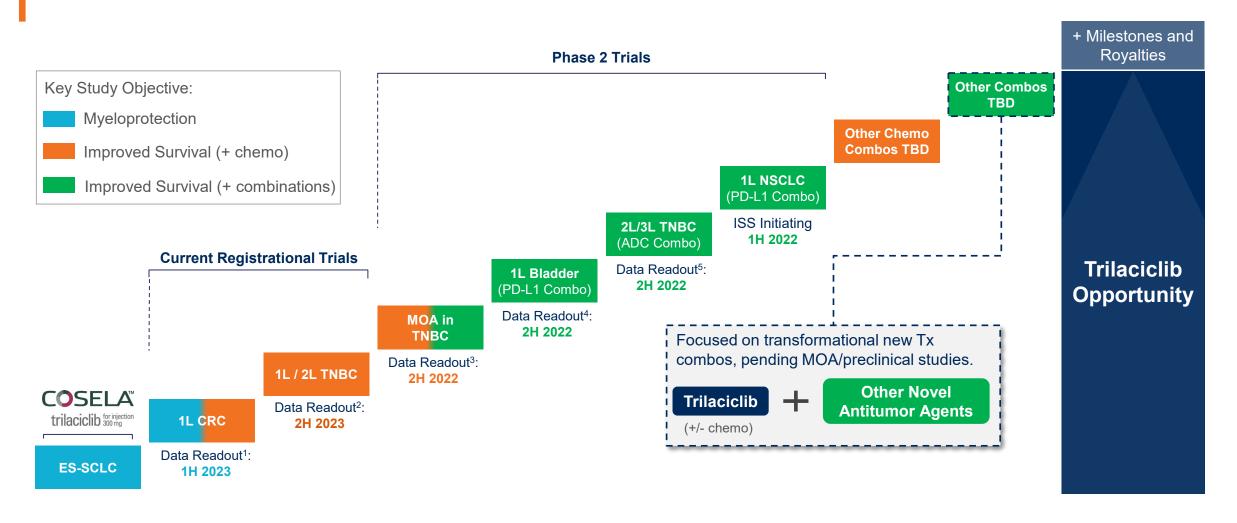
- Improving the efficacy of immunotherapy and targeted combinations:
- Prior to / with PD-(L)1 inhibitors
- With Antibody Drug Conjugates
- With other agents / triple combinations

Improved Survival (+ combinations)



- ¹ COSELA approved by U.S. FDA in ES-SCLC in February 2021; commercially available
- Clinical evaluation underway; the safety and efficacy of an investigational use of an approved product have not been established or approved by the FDA or other regulatory authorities.

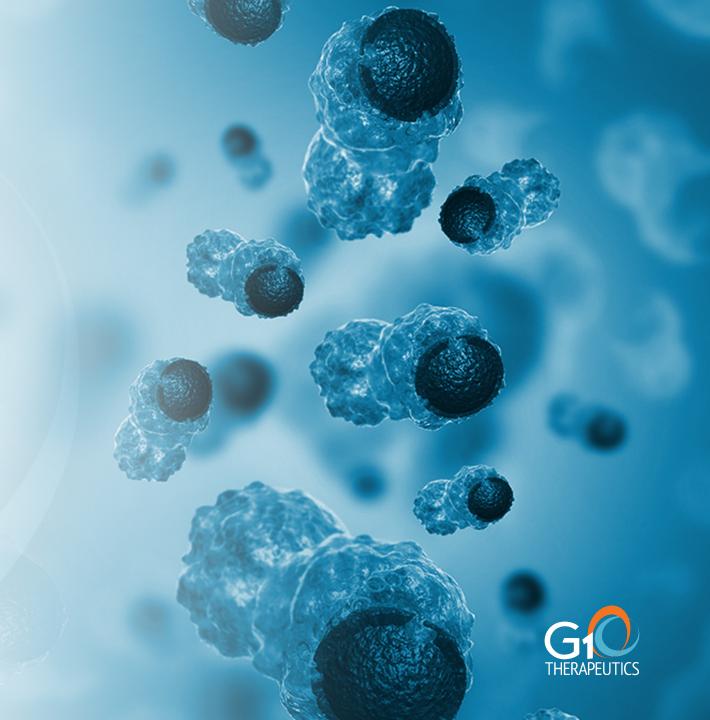
Pipeline-in-a-Molecule Opportunity Beyond ES-SCLC Launch





- 1. 1L CRC data readout in 1H 2023 expected to include results for myeloprotection and Objective Response Rate (ORR) endpoints
- 2. 1L / 2L TNBC data readout in 2H 2023 expected to include interim results for Overall Survival (OS) in 1L and final OS in 2L
- 3. MOA in Neoadjuvant TNBC data readout in 2H 2022 expected to include results for immune endpoints (e.g., CD8+ / Treg ratio)
- . 1L Bladder Cancer (in combination with an anti-PD-L1) initial data in 2H 2022 expected to include ORR and myeloprotection endpoints
- 2L / 3L TNBC (in combination with an ADC) initial data in 2H 2022 expected to include ORR and myeloprotection endpoints

COSELA (trilaciclib)
Commercial Update





COSELA's Opportunity to Impact Many ES-SCLC Lives

~30k ES-SCLC Patients Treated Annually in the U.S.¹

1L Treated Patients^{1,2} 17.5k

2L Treated Patients^{1,3} 9.5k

3L Treated Patients^{1,4} 2.5k

ES-SCLC patients predominantly treated with highly myelosuppressive chemo regimens

- Opportunity for innovation given aggressiveness of disease (1L median OS ~1 year⁵)
- Standard treatment includes 4 to 6 cycles of chemo

Exceptionally strong reimbursement by both Medicare and commercial payors

- ~60% Medicare
- ~30% Commercial
- ~10% Medicaid/Other



^{1.} Based on incidence of 25k for all SCLC with 81% of patients being diagnosed at Extensive Stage; Decision Resources Group, Small Cell Lung Cancer Disease Landscape & Forecast, March 2020.

^{2.} Based on 22k 1L SCLC total patients (20K de novo ES-SCLC and 2K late relapse LS-SCLC) treated at an assumed 80% treatment rate (from 2020 internal primary market research).

3. Based on 12.5k 2L SCLC total patients (11k progressed 1L SCLC and 1.5k early relapse LS-SCLC) treated at an assumed 72% treatment rate (from 2020 internal primary market research).

^{4.} Based on 5k 3L SCLC total patients treated at an assumed 50% treatment rate (from 2020 internal primary market research).

^{5.} Demonstrated in COSELA G1T28-02 and G1T28-05 study control arms.



Myelosuppression Has Historically Been Treated with Lineage Specific Interventions

MYELOSUPPRESSION

An unavoidable consequence of chemo that impacts patient safety, healthcare system costs and QoL

NEUTROPENIA

ANEMIA

THROMBOCYTOPENIA

CONSEQUENCE:

Risk of infection

Fatigue

Risk of bleeding

RESPONSE: G-CSF use RBC transfusions Platelet transfusions and ESA rescue

Increased healthcare Chemotherapy costs and G-CSF- dose reductions associated bone pain and delays

Hospitalizations and unscheduled patient care

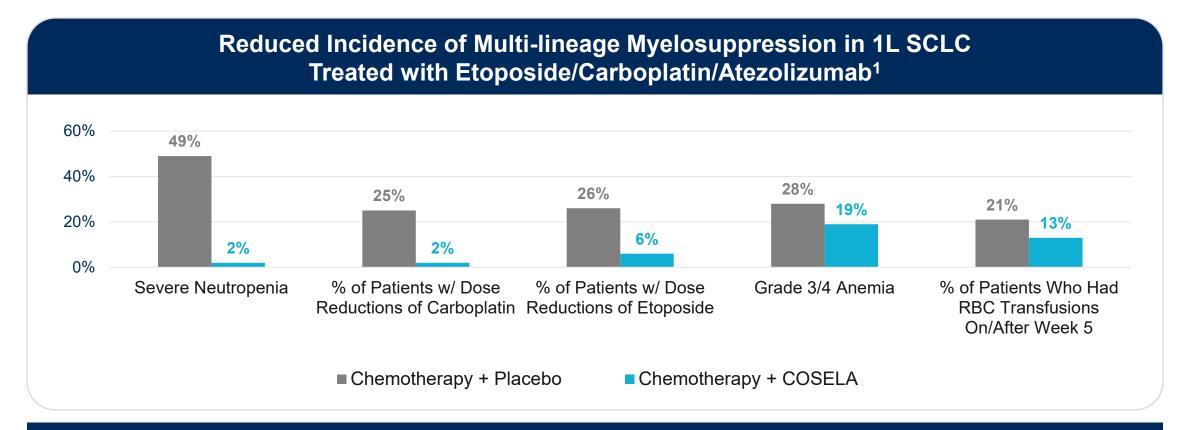
COSELA is the first and only proactive multilineage myeloprotection therapy to decrease the incidence of chemotherapy-induced myelosuppression in ES-SCLC



HEMATOLOGIC



COSELA Helps Manage Multiple Myelosuppressive Consequences



Clinical results: COSELA demonstrated reductions in multiple myelosuppressive consequences





Commercial Tailwinds and Headwinds

- Only product offering proactive multilineage myeloprotection
- High awareness and intention to use
- Exceptional reimbursement coverage
- Strong user experience and reordering amongst early adopters
- Fits within clinic workflow



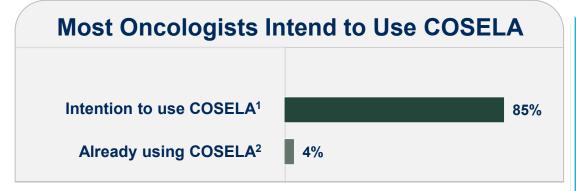
- Limited access to top 100 accounts
- Slow return to in-person visits
- Education requirement

Decisively and actively addressing headwinds, including by hiring and deploying G1 sales force





Turning 'Intention to Use' into 'Usage and Uptake' Key Account Access is Key to Adoption



Reasons frequently cited for delay in prescribing

- Limited engagement with sales reps
- Lack of education on label and use
- Lack of education on MOA and clinical data
- Lack of information on insurance coverage

Focus of G1 Sales Force

- Promote with prescribing oncologists
- Educate on label and appropriate usage
- Foster clinical advocacy
- Incorporate into office workflow
- Support reimbursement

G1 sales force being deployed to rapidly improve usage and adoption





Rapid Execution on G1 Sales Force Deployment

Assembling Dedicated Team with Proven Account Access

Vice President, Sales	Hired and deployed	
Regional Sales Directors (RSDs	s)	Over 300
RSD (Northeast)	Hired and deployed	years of
RSD (Southeast)	Hired and deployed	combined
RSD (West)	Hired	oncology sales and
RSD (Central)	Hired	product
34 Oncology Sales Account Ma	launch	
Wave 1 (15 OSAMs)	15 Hired; 13 deployed	experience
Wave 2 (19 OSAMs)	9 Hired	·

COSELA-focused sales team to be fully deployed by mid-February 2022





Improved Execution Provides Strong Growth Potential

Currently ~20K Eligible ES-SCLC Patients

(1L / 2L patients receiving indicated chemotherapy)



Penetration into eligible market will be driven by

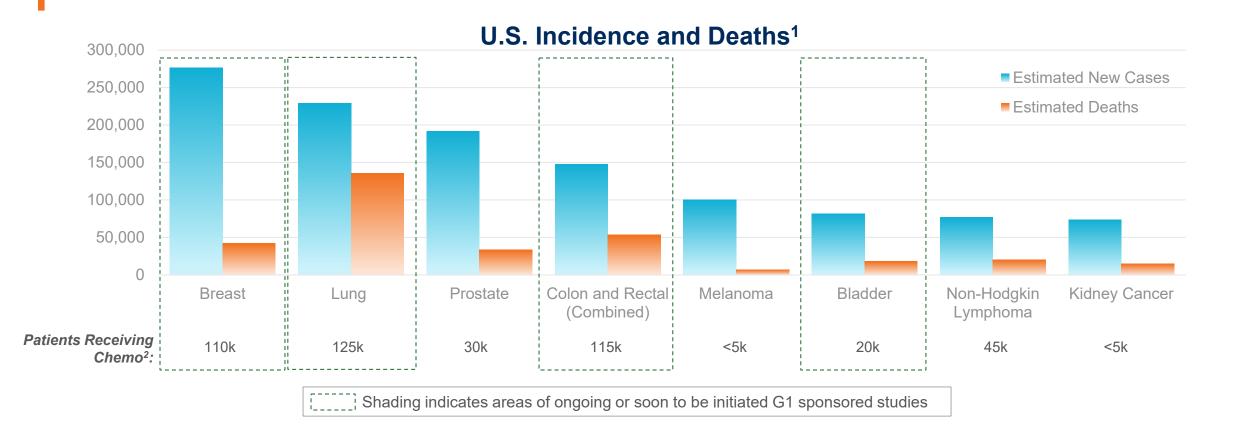
- New G1 COSELA-focused sales force
- Improved access to prescribers
- Exceptional reimbursement coverage
- Driving shift from 'intention to use' to 'usage and uptake'
- Only product offering proactive multilineage myeloprotection

Executing on optimized commercial plan to accelerate adoption of COSELA for ES-SCLC





Aggressively Pursuing Development in Common Tumor Types



G1 has initiated sponsored and supported studies in many of the most common and deadly tumor types



^{1.} Estimated new cases and deaths from National Cancer Institute for 2020.

^{2.} Estimated patients receiving chemotherapy from Kantar Health CancerMPact Patient Metrics, 2019 data based on IQVIA BrandImpact regimen shares and Kantar Health Treatment Architecture 2019 survey data for patients receiving chemo (rounded to nearest 5,000 patients).

Broad Portfolio of Trilaciclib Clinical Studies Multiple Common Tumor Types

Cancer Type	Indication	Study Size	Phase 2	Pivotal	Approval
	ES-SCLC				Approved by U.S. FDA (Feb 2021)
Lung	1L NSCLC (ISS) (Checkpoint + chemo combo)	~105	To be initiated 1H 2022		
Colorectal	1L CRC	~300		PRESERVE 1: Ongoing	
Breast	1L TNBC ¹	~170		PRESERVE 2: Ongoing	
	2L TNBC¹ (Post-checkpoint treatment)	~80		PRESERVE 2: Ongoing	
	2L/3L TNBC (ADC combo)	~45	ADC Combo Study: Ongoing		
	Neoadjuvant TNBC	~30	MOA Study: Ongoing		
Bladder	1L Bladder (Checkpoint combination)	~90	PRESERVE 3: Ongoing		

Continuing to expand development effort with a focus on combining trilaciclib with complementary assets to improve survival

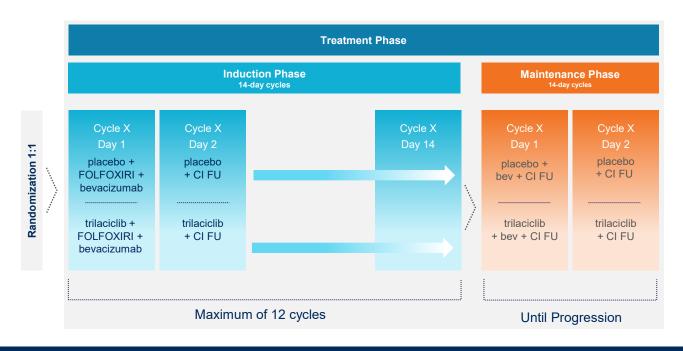


1/2/3L, first-/second-/third-line: CRC colorectal cancer; ES-SCLC, extensive-stage small cell lung cancer; FDA, U.S. Food and Drug Administration; NSCLC, nonsmall cell lung cancer; TNBC, triple-negative breast cancer

¹1L TNBC and 2L TNBC cohorts being conducted under one study protocol.

Ongoing First-Line CRC Pivotal Trial: PRESERVE 1

FOLFOXIRI: most efficacious chemo regimen but highly myelosuppressive Potential to significantly expand FOLFOXIRI usage supported by market research



PRIMARY ENDPOINT: Myeloprotection

SECONDARY ENDPOINTS: PFS/OS, PRO

TARGET ENROLLMENT: ~300 participants

PATIENTS TREATED UNTIL PROGRESSION

MULTI-DAY CHEMO REGIMEN

Initial results in 1H 2023

Strong support from preclinical models for the benefits of trilaciclib in combination with 5-FU-based chemo regimens



Ongoing TNBC Pivotal Trial (1L / 2L Cohorts): PRESERVE 2

Initial positive evidence of efficacy across subsets and line of treatment in Phase 2 trial¹ Evaluating 1L checkpoint-naïve and 2L checkpoint-experienced patients



PRIMARY ENDPOINT:
Overall survival

PRO, myeloprotection measures, PFS/ORR

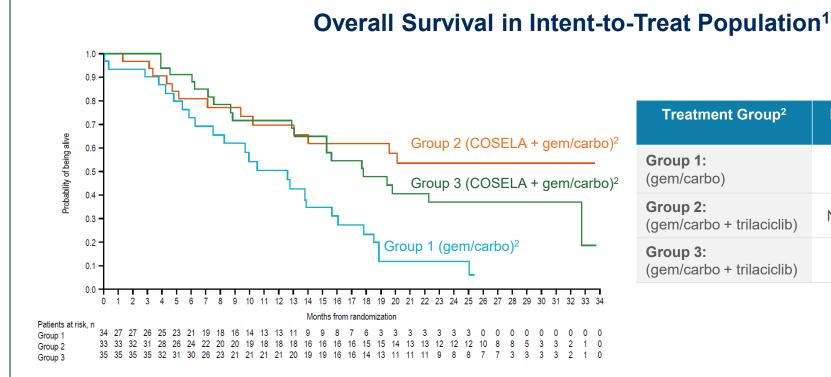
TARGET ENROLLMENT: ~170 1L and ~80 2L participants

Initial results in 2H 2023

Pivotal study evaluating trilaciclib in mTNBC (PD-L1 positive and negative patients) building upon robust OS benefit observed in prior Phase 2 study



Observed Robust OS Improvement in mTNBC Phase 2



Treatment Group ²	Median OS, months	Hazard Ratio (95% CI)	P Value
Group 1: (gem/carbo)	12.6	-	-
Group 2: (gem/carbo + trilaciclib)	Not Reached	0.31 (0.15-0.63)	0.0016
Group 3: (gem/carbo + trilaciclib)	17.8	0.40 (0.22-0.74)	0.0004

Observed a robust statistically significant improvement in Overall Survival for both trilaciclib schedules



1. O'Shaughnessy et al., 2020 San Antonio Breast Cancer Symposium (SABCS), Poster #PD1-06. Note: primary endpoints relating to reduction in severe neutropenia not achieved in this study.

2. Patients randomized to receive gem/carbo chemotherapy only (Group 1) or gem/carbo plus one of two dosing schedules of COSELA: COSELA administered on the day of chemotherapy (Group 2) or COSELA administered the day prior to and the day of chemotherapy (Group 3).

OS Improvement Observed, Regardless of PD-L1 Status

Overall Survival for PD-L1 Positive Tumors¹

Treatment Group ²	Patients	Median OS (95% CI), Months	Hazard Ratio (95% CI)	<i>P</i> Value
Group 1: (gem/carbo)	17	10.5 (6.3 – 18.8)	-	-
Group 2 and 3: (gem/carbo + trilaciclib)	32	32.7 (17.7 – NR)	0.34 (0.2 – 0.7)	0.004

Overall Survival for PD-L1 Negative Tumors¹

Treatment Group ²	Patients	Median OS (95% CI), Months	Hazard Ratio (95% CI)	<i>P</i> Value
Group 1: (gem/carbo)	10	13.9 (12.6 – NR)	-	-
Group 2 and 3: (gem/carbo + trilaciclib)	26	17.8 (13.1 – NR)	0.48 (0.2 – 1.2)	0.093

Overall Survival improvement was observed regardless of tumor PD-L1 status (greater effect in PD-L1 positive tumors)

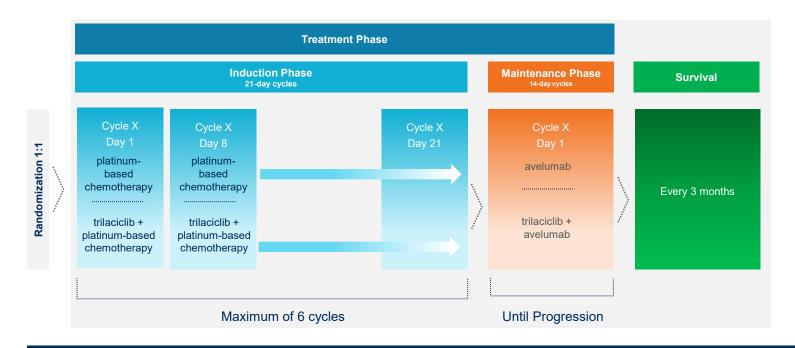


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Ongoing Phase 2 Bladder (mUC) Study: PRESERVE 3

Building on strong rationale for trilaciclib + chemo + checkpoint inhibitor; data to date suggest potential for synergistic effect in known immunogenic tumor



PRIMARY ENDPOINT: PFS

SECONDARY ENDPOINTS: ORR, DCR, DOR, OS, myeloprotection measures

TARGET ENROLLMENT: ~90 participants

PATIENTS TREATED UNTIL PROGRESSION

Initial results in 2H 2022

Phase 2 study will provide meaningful data for trilaciclib in a known immunogenic setting; expected to help define future combination studies



Ongoing Phase 2 ADC Combination Study: 2L/3L Metastatic TNBC

Evaluate synergistic combo potential of trilaciclib and sacitizumab govitecan-hziy, each of which have individually demonstrated clinically meaningful OS improvements in TNBC

Single Arm:
2L/3L TNBC

Phase 2 initiated
4Q 2021

Cycle X
Day 1

Litilaciclib +
sacituzumab
govitecan-hziy

Patients Treated Until Progression

PRIMARY ENDPOINT: PFS

SECONDARY ENDPOINTS:
ORR, CBR, OS,
myeloprotection measures

TARGET ENROLLMENT: ~45 participants

PATIENTS TREATED UNTIL PROGRESSION

Initial results in 2H 2022

Strong belief in clinical rationale underlying this combo; data generated will be instructive in evaluating future ADC combo possibilities

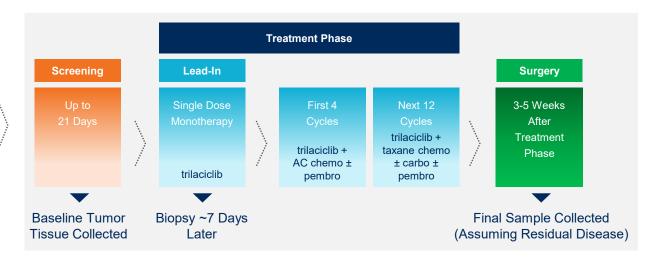


Ongoing Phase 2 Mechanism of Action Study: Neoadjuvant TNBC

Confirm immune-based properties of trilaciclib and its potential role in increasing the antitumor efficacy of chemotherapy with and without a checkpoint inhibitor

Single Arm: Early-stage TNBC

Phase 2 initiated 4Q 2021



Replacing I-SPY2 neoadjuvant breast trial in pipeline given landscape shift from chemo only to chemo + I/O

PRIMARY ENDPOINT: Immune-based MOA

pcR, immune response and profiling measures

TARGET ENROLLMENT: ~30 participants

PATIENTS TREATED UNTIL PROGRESSION

Initial results in 2H 2022

Data generated from MOA study will inform design of future additional pivotal studies across multiple tumor types and treatment combinations



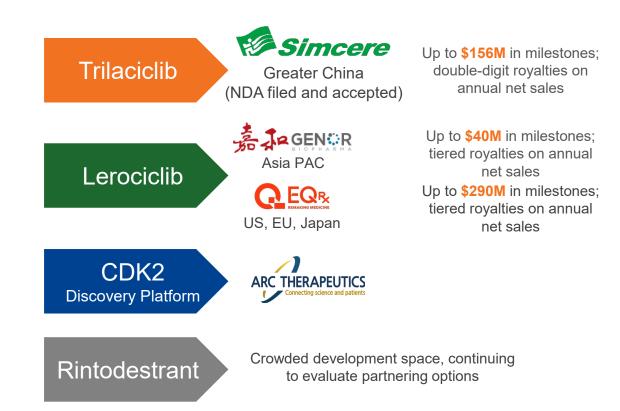
Efficiently Managing Capital Heading into Pivotal 2022

Potential for Meaningful Incremental Value from Out-Licensed Assets

Cash runway into 2024

- \$221M in cash and cash equivalents as of December 31, 2021
 - Includes \$75M drawn from Hercules \$150M debt facility
 - Additional \$25M of debt facility currently available but not yet drawn

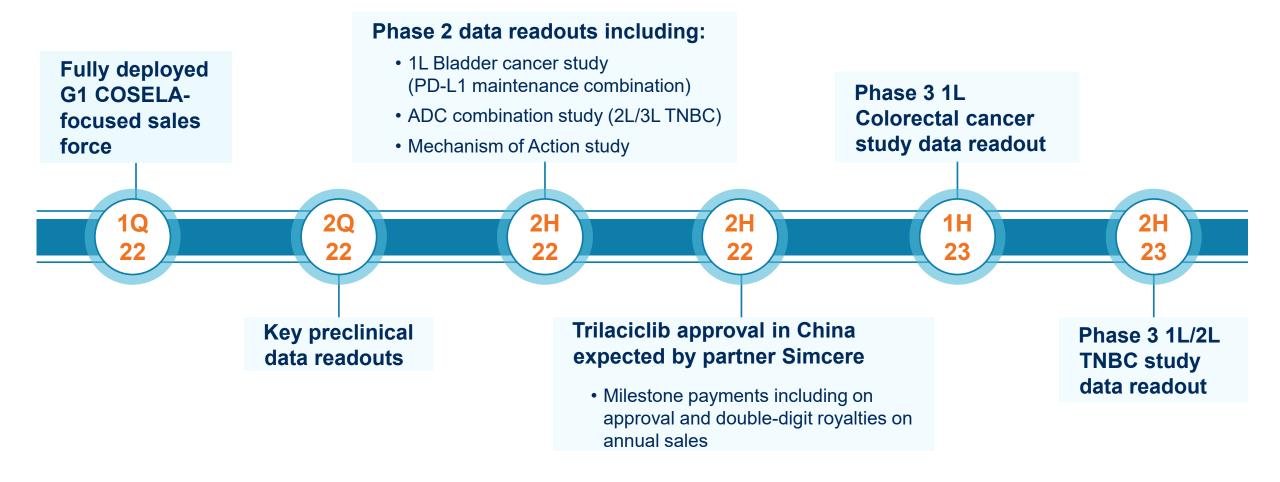
Additional potential proceeds from licensing agreements



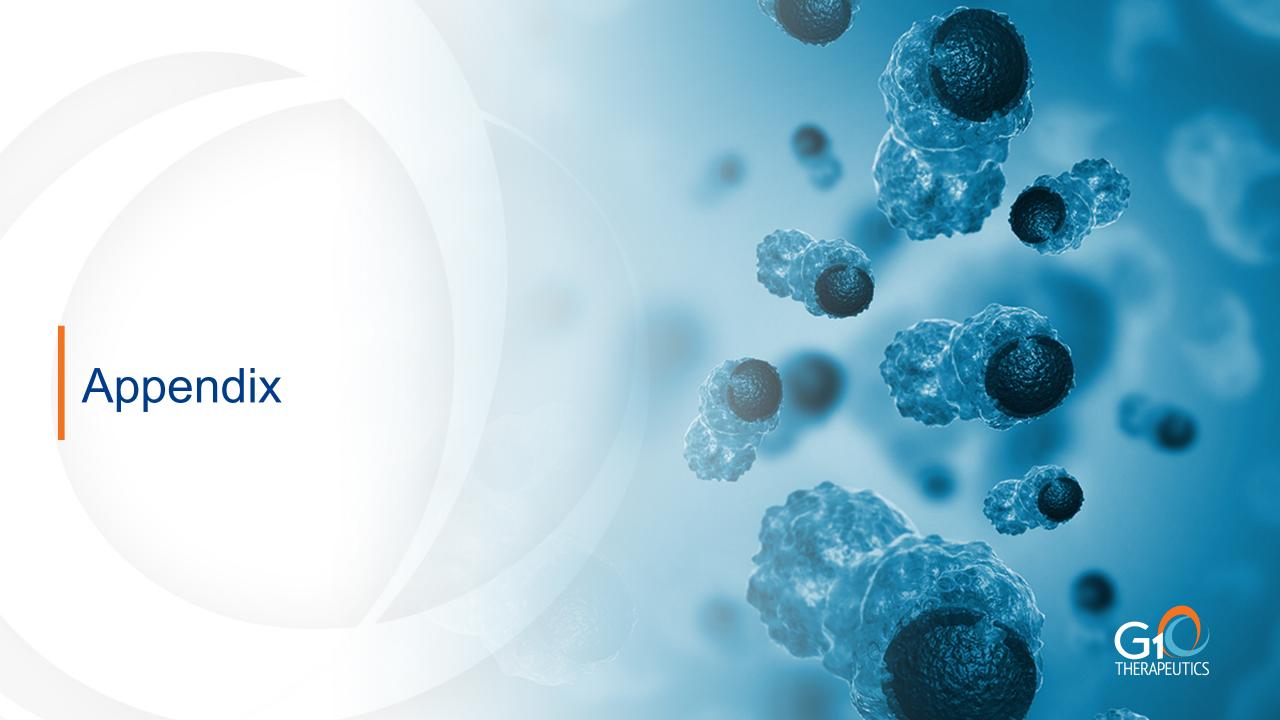
Strong capital position as of December 31, 2021; potential for \$475 million in milestone payments (as of 9/30/21) plus royalties



Upcoming Key Milestones







About COSELA™ (trilaciclib) for Injection

Indication

COSELA™ (trilaciclib) is indicated to decrease the incidence of chemotherapy-induced myelosuppression in adult patients when administered prior to a platinum/etoposide-containing regimen or topotecan-containing regimen for extensive-stage small cell lung cancer.

Important Safety Information

COSELA is contraindicated in patients with a history of serious hypersensitivity reactions to trilaciclib.

Warnings and precautions include injection-site reactions (including phlebitis and thrombophlebitis), acute drug hypersensitivity reactions, interstitial lung disease (pneumonitis), and embryo-fetal toxicity.

The most common adverse reactions (>10%) were fatigue, hypocalcemia, hypokalemia, hypophosphatemia, aspartate aminotransferase increased, headache, and pneumonia.

This information is not comprehensive. Please click here for full Prescribing Information. https://www.g1therapeutics.com/cosela/pi/

