



Critical Outcome
Technologies Inc.

***Advancing the Treatment of Cancer
Through Targeted Therapeutics***

March 2016

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A clinical stage biopharmaceutical company with a promising new drug for ovarian and other cancers with p53 mutations

- TSX-V: COT
- OTCQB: COTQF



1

COTI-2: p53 activating drug – now recruiting patients for a Phase 1 gynecologic study

- > 95% of ovarian cancer patients have a p53 gene mutation
- > \$1B market potential in U.S. alone

2

Strong pipeline of follow-on opportunities in oncology and other therapeutic areas

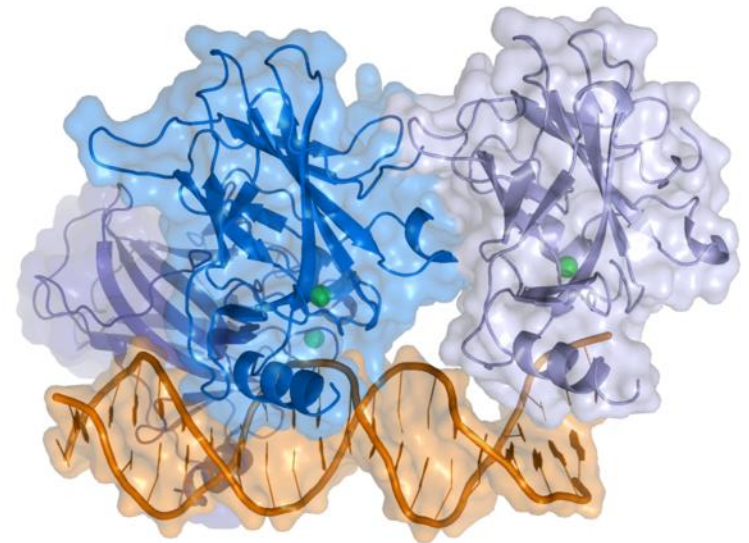
3

Approaching a critical inflection point

COTI-2: A breakthrough for many cancers

- p53 is the single most important cancer causing gene mutation known
 - > 50% of all human cancers
- Novel mechanism of action reactivates p53 function
- Effective against common cancers in multiple preclinical animal models

“a promising advance for many cancers with p53 mutations” – Dr. G.B. Mills, MDACC



COTI-2: Strong market opportunity

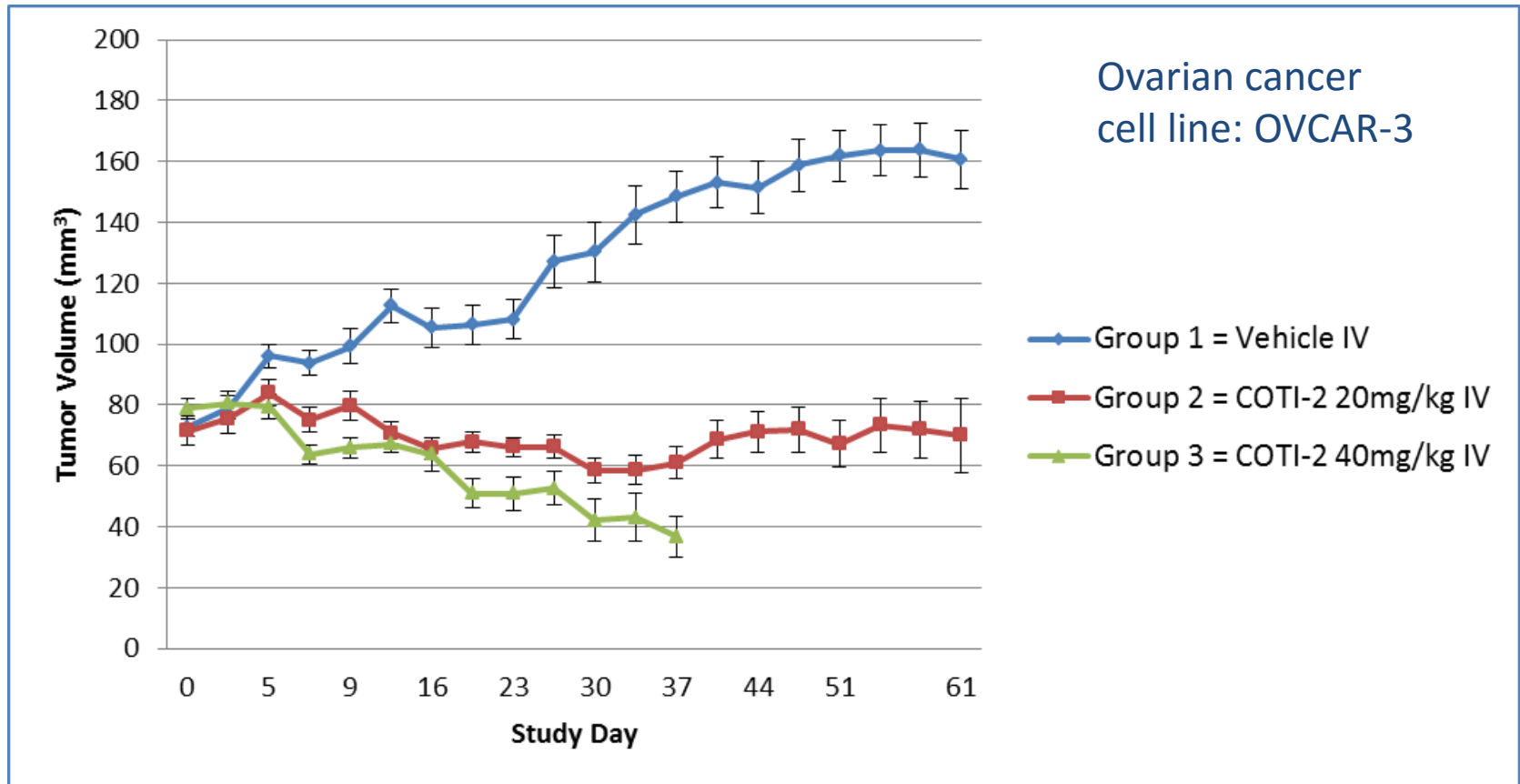
- ~ 12 million new cases of cancer annually worldwide
 - ~ 30% (~ 3.6 million) of all cancers would have susceptible p53 mutations
- Exploring clinical studies for multiple indications:
 - Head and neck (orphan) – next Phase 1 study in latter half of 2016
 - Li-Fraumeni syndrome (FDA orphan drug application filed 11/2015)
 - AML (orphan)
- Preclinical models with COTI-2 demonstrate effectiveness when combined with many first-line therapies:
 - Chemotherapy and immunotherapy

Advancing the treatment of p53-dependent cancers

COTI-2: Best-in-class potential

- Novel p53-dependent mechanism of action
- Orally bio-available and effective at low dose
- Low toxicity in preclinical development
- Opportunity for single agent and combination therapy
- Strong IP protection in place
 - 6 U.S. patents issued
 - 1 Japanese, 1 Canadian and 1 EU patent issued
 - Additional patents pending

COTI-2: Significant tumor reduction



Tumor volumes significantly reduced by COTI-2 in all treatment groups relative to vehicle control

Competitor comparison to COTI-2

DRUG	COTI-2	Keveirin	APR-246 / PRIMA-1^{MET}
COMPANY	Critical Outcome Technologies Inc.	Cellceutix Corp	Aprea
MECHANISM OF ACTION	Targets mutant p53 (restoration of wild-type p53 conformation and activity)	Targets wild-type and mutant p53 (MDM2-related mechanism)	Targets mutant p53 (restoration of wild-type p53 conformation and activity)
<i>IN VITRO</i> EFFICACY	Most potent (nanomolar range of activity)	Least potent (activity >100 μ M)	Much less potent than COTI-2 (activity in high micromolar range)
CLINICAL PHASE OF DEVELOPMENT	Phase 1	Phase 1	Phase 1/2
INDICATIONS	Gynecological malignancies (first patient in February 2016)	Solid tumors (ongoing)	Hematological malignancies and prostate cancer (phase 1/2 completed)

MD Anderson collaboration

- Key Opinion Leader, Dr. Gordon Mills, independently confirmed COTI-2's novel p53-dependent mechanism of action
- Confirmed COTI-2's selective & potent anti-cancer activity
- Identified effective dosage 60% lower than in prior animal experiments
- MDACC has committed financial support to the Phase 1

- *In vitro* and *in vivo* studies done with human cancer cell lines
- Toxicity studies show limited toxicity and dosing level was relatively low for efficacy
- Dr. Mills has stated that based on his long experience results seen to date should translate to people
- Queen's University study – clinical success where there are 5 or more preclinical cancer indications

COTI-2: Important milestones

COMPLETED

- ✓ Granted orphan drug status for ovarian cancer by FDA in Jun 2014
- ✓ Signed LOI with MD Anderson for Phase 1 clinical trial in Aug 2014
- ✓ Appointed experienced Scientific Advisory Board (SAB)
- ✓ IND grant to proceed from FDA on May 22, 2015
- ✓ Filed for orphan drug status for Li-Fraumeni syndrome in Nov 2015
- ✓ Phase 1 clinical trial patient dosing commenced Feb 2016

UPCOMING

- Second patient cohort of Phase 1 trial to commence in April 2016
- Li-Fraumeni orphan drug status approval expected in Mar 2016
- Increase value of COTI-2 with new clinical indications and combination therapies
- Select next preclinical candidate for development
- Collaborations / partnerships with COTI-2 and CHEMSAS[®]
- COTI-2 scientific test result publications 2016

Anticipated COTI-2 Clinical Trial News Flow

- Following February 2016, first patient dosing at MDACC – regular updates as each cohort commences dosing – next April 2016
- July - Aug 2016 – initial safety and pharmacokinetic results
 - after first 3-4 cohorts have been dosed and evaluated
- November-December 2016 – interim efficacy evaluation
 - after first ~ 6 months of treatment
- Final trial results and conclusions – first half of 2017
- Second half of 2016 – additional multi center clinical trial programs:
 - Recurrent Head and Neck Squamous Cell cancer (HNSCC), and
 - Li-Fraumeni Syndrome (LFS)

COTI-2: First of many opportunities

Therapy Library /Compound	Target	CHEMSAS	Lead Selection	Synthesis	Preclinical	Phase 1
Oncology						
COTI-2 (p53)	[Red bar]					
AML library	[Black bar]					
Colon library	[Blue bar]					
COTI-219	[Black bar]					
COTI-4	[Blue bar]					
COTI-58	[Black bar]					
Other programs *	[Blue bar]					

* Other programs for MRSA, Multiple Sclerosis, Alzheimer's, and HIV Integrase

Building a robust pipeline with CHEMSAS®

- Proprietary, machine learning (AI) based drug discovery platform technology
- Big data analysis solutions



Database driven
computational
replication of
traditional
'wet lab' drug
discovery process

Costly failed attempts
occur **quickly & cheaply**
in computer simulations,
not the 'wet lab'

Increased probability of
clinical & commercial
success

Next clinical candidate options

- 1** COTI-219, a unique oncology drug candidate for CRC and melanoma
- 2** COTI-MRSA1, highly novel antibiotic
- 3** COTI-AML-01, a multi-kinase inhibitor for Acute Myelogenous Leukemia (AML)
- 4** COTI-HIV-II, second generation dual HIV Integrase inhibitor

All pipeline candidates discovered by CHEMSAS®

Management Team

Wayne Danter, MD, FRCPC

- Co-founder, President, CEO & CSO
- Former Associate Professor of Medicine at Western University

Gene Kelly

- Chief Financial Officer
- Former VP Finance, Cuddy Farms
- Former VP Commodities & Industry Relations, Cuddy Foods
- Former VP Strategic Implementations, Cuddy Farms

Kowthar Salim, PhD, MBA

- Program Director and Senior Scientist

Alison Silva, MS

- Co-founder, EVP & COO, Synlogic

Directors

John Drake, LLB, Chairman

- Chairman, Whippoorwill Holdings Limited

Wayne Danter, MD, FRCPC

Douglas Alexander, CPA, CA

- Chairman, Hydrogenics Corporation

Bruno Maruzzo, MAsc, MBA

- President, TechnoVenture Inc.

Dave Sanderson, LLB

- President & CEO, KFL Investment Management Inc.

Alison Silva, MS

- Co-founder, EVP & COO, Synlogic

John Yoo, MD FRCPC

- Professor, Chairman and City-wide Chief of Otolaryngology – Head and Neck Surgery at Western University

COTI-2 Scientific Advisory Board

Dr. Gordon Mills from the University of Texas MD Anderson Cancer Center, Houston, TX, Chairman

Dr. Douglas Levine from the Memorial Sloan-Kettering Cancer Center, New York City, NY

Dr. David Parkinson from New Enterprise Associates, Menlo Park, CA

Dr. Marshall Strome from the Center for Head and Neck Oncology at Roosevelt St. Luke's Hospital, New York City, NY

Dr. Wayne R. Danter, Chief Scientific Officer, Critical Outcome Technologies Inc, London, Canada

Key Company Facts

Trading	
TSX Venture ⁽²⁾	COT
Recent Closing Price ⁽³⁾	\$0.36
52 Week Range ⁽³⁾	\$0.195 - 0.38
Market Capitalization ⁽³⁾	\$48,181,964
Capital	
Cash ⁽⁴⁾	\$1,747,885
Basic Shares Outstanding ⁽³⁾	133,838,789
Options Outstanding ⁽³⁾	7,218,320
Warrants Outstanding ⁽³⁾	29,408,794
Fully Diluted Shares Outstanding ⁽³⁾	170,465,903
Board & management control ^{(3) (5)}	15.0%

(1) All \$ amounts in CAD

(2) COTI also trades on the OTCQB:COTQF but amounts presented are for the TSXV only

(3) As at Mar 18, 2016

(4) As at Jan 31, 2016 consisting of cash, cash equivalents and short-term investment

(5) On a fully diluted basis



Critical Outcome

Technologies Inc.

Contact:

Dr. Wayne Danter

President & CEO

Office: (519) 858-5157

Mobile: (519) 851-0035

wdanter@criticaloutcome.com

www.criticaloutcome.com

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