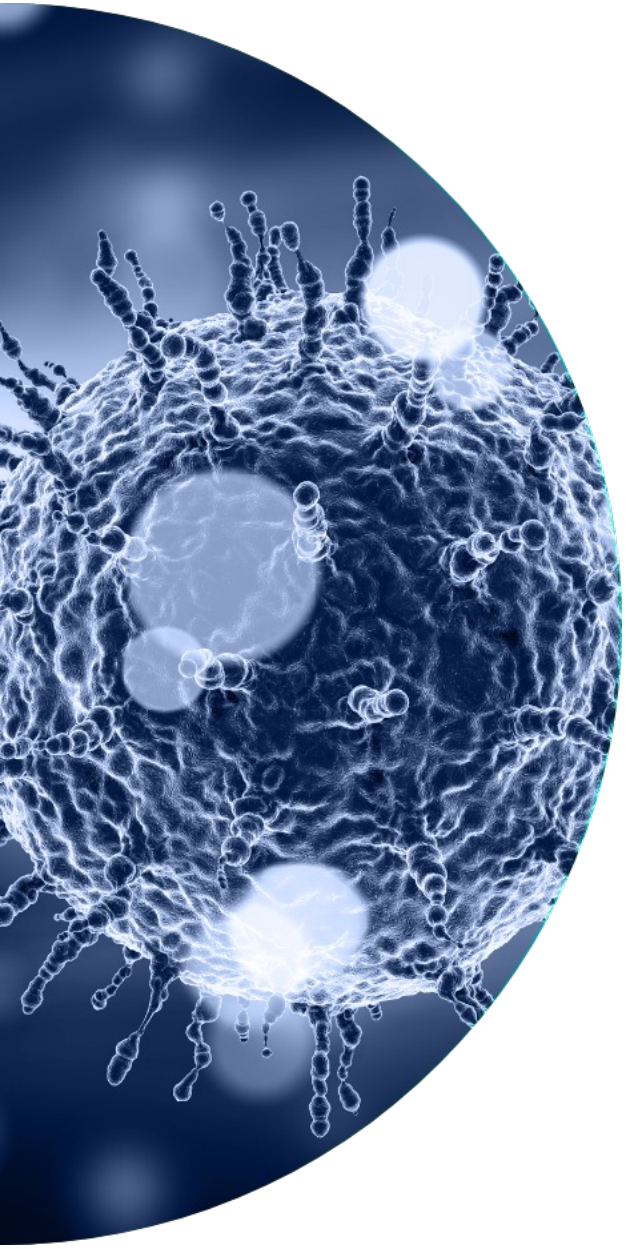


CANDEL THERAPEUTICS

Tipping the balance in favor of the immune system to fight cancer

BIO International Convention | June 2022

NASDAQ: CADL

Forward Looking Statements

This Presentation contains forward-looking statements and information. All statements other than statements of historical facts contained in this Presentation, including express or implied statements regarding our strategy, future financial condition, future operations, projected costs, prospects, plans, objectives of management and expected market size, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "target," "seek," "predict," "potential," "continue" or the negative of these terms or other comparable terminology. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market size, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements in this Presentation include, but are not limited to, statements about: the initiation, timing, progress, results, and cost of our research and development programs and our current and future preclinical and clinical studies, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available, and our research and development programs; our ability to efficiently discover and develop product candidates; our ability to initiate, recruit and enroll patients in and conduct our clinical trials at the pace that we project; our ability to obtain and maintain regulatory approval of our product candidates; our ability to compete with companies currently marketing or engaged in the development of treatments that our product candidates are designed to target; our reliance on third parties to conduct our clinical trials and to manufacture drug substance for use in our clinical trials; the size and growth potential of the markets for our product candidates and our ability to serve those markets; the ability and willingness of our third-party strategic collaborators to continue research and development activities relating to our development candidates and product candidates; our ability to obtain and maintain adequate intellectual property rights; our estimates of our future expenses, revenue, capital requirements or our need for or ability to obtain additional financing; the potential benefits of strategic collaboration agreements, our ability to enter into additional strategic collaborations or arrangements, and our ability to attract collaborators with development, regulatory and commercialization expertise; our financial performance; developments and projections relating to our competitors or our industry; the effect of the COVID-19 pandemic, including mitigation efforts and economic effects, on any of the foregoing or other aspects of our business operations, including but not limited to our preclinical studies or current and future clinical trials. We caution the recipient not to place considerable reliance on the forward-looking statements contained in this presentation. The forward- looking statements in this Presentation speak only as of the date of this document, and we undertake no obligation to update or revise any of these statements. Our business is subject to substantial risks and uncertainties, including those referenced above.

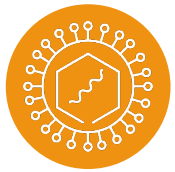
Certain information contained in this Presentation relates to or is based on estimates, projections and other information concerning the Company's industry, its business and the markets for its programs and product candidates and studies, publications, surveys and other data obtained from third-party sources and the Company's own internal estimates and research. While the Company believes these third-party sources to be reliable as of the date of this Presentation, it has not independently verified, and makes no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, all of the market data included in this Presentation involves a number of assumptions ere can be no guarantee as to the accuracy or reliability of such assumptions. Finally, while we believe our own internal research is reliable, such research has not verified by any independent source.

These forward-looking statements are based on the beliefs of our management as well as assumptions made by and information currently available to us. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. If such assumptions do not fully materialize or prove incorrect, the events or circumstances referred to in the forward-looking statements may not occur. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in our expectations, except as required by law. Accordingly, readers are cautioned not to place undue reliance on these forward-looking statements. Additional risks and uncertainties that could affect our business are included under the caption "Risk Factors" in our most recent report filed with the Securities and Exchange Commission.

Candel overview: Oncolytic viral immunotherapies

- Two key investigational medicines

- CAN-2409
  - Engineered, replication-defective adenoviral gene construct encoding HSV-thymidine kinase
  - Ongoing clinical trials in NSCLC, high-grade glioma (HGG), pancreatic cancer, and prostate cancer
  - Pipeline in a product
  - Upcoming catalysts (Q4 2022): NSCLC and 1st line treatment of HGG

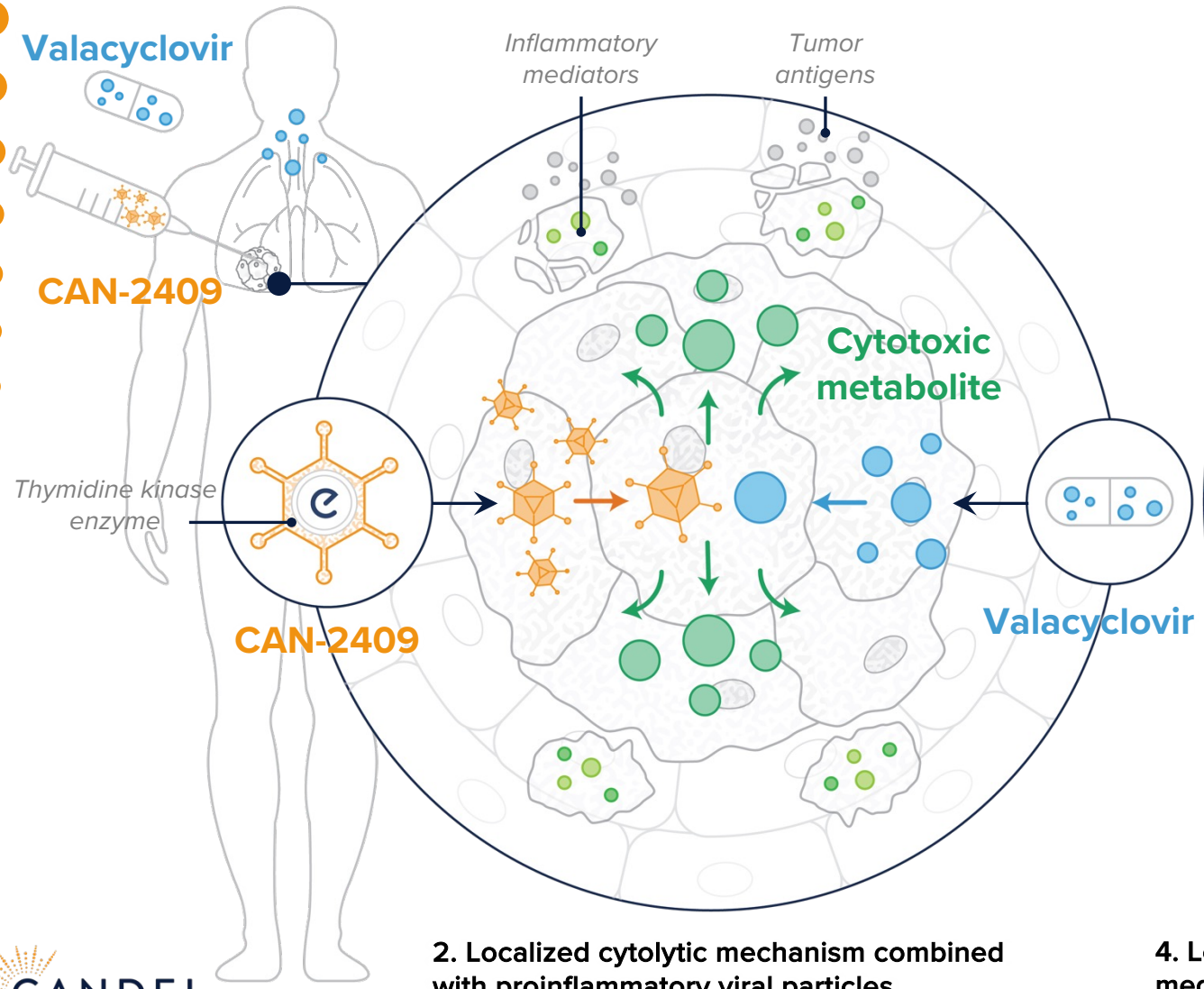


- CAN-3110
  - Engineered, replication-competent herpes simplex virus with tumor-specificity
  - Opportunity for expansion of indications outside the brain
  - Upcoming catalyst (Q4 2022): Phase 1b clinical trial data in recurrent HGG
- enLIGHTEN™ Discovery Platform based on HSV technology

- Strong scientific support from external experts, including high-profile Research Advisory Board
- Significant unmet need and commercial opportunity for each selected indication
- IPO in July 2021 provided net proceeds of $71.3M plus $20.0M of long-term debt in Feb 2022
- Cash of $94.3M as of March 31, 2022 – funds currently planned operations into Q4 2023

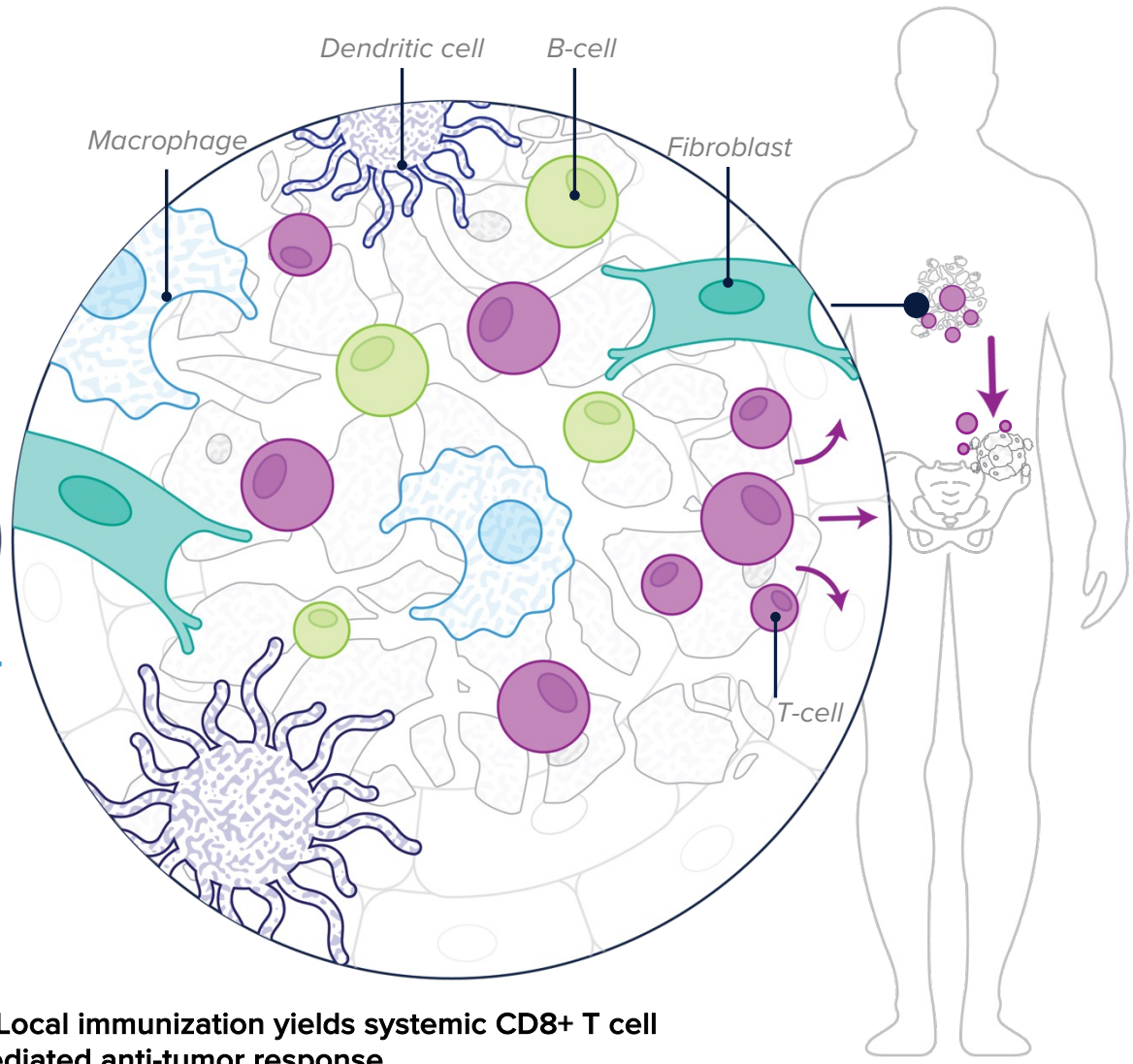
CAN-2409: Mechanism of action

1. CAN-2409 locally administered and oral prodrug



2. Localized cytolytic mechanism combined with proinflammatory viral particles

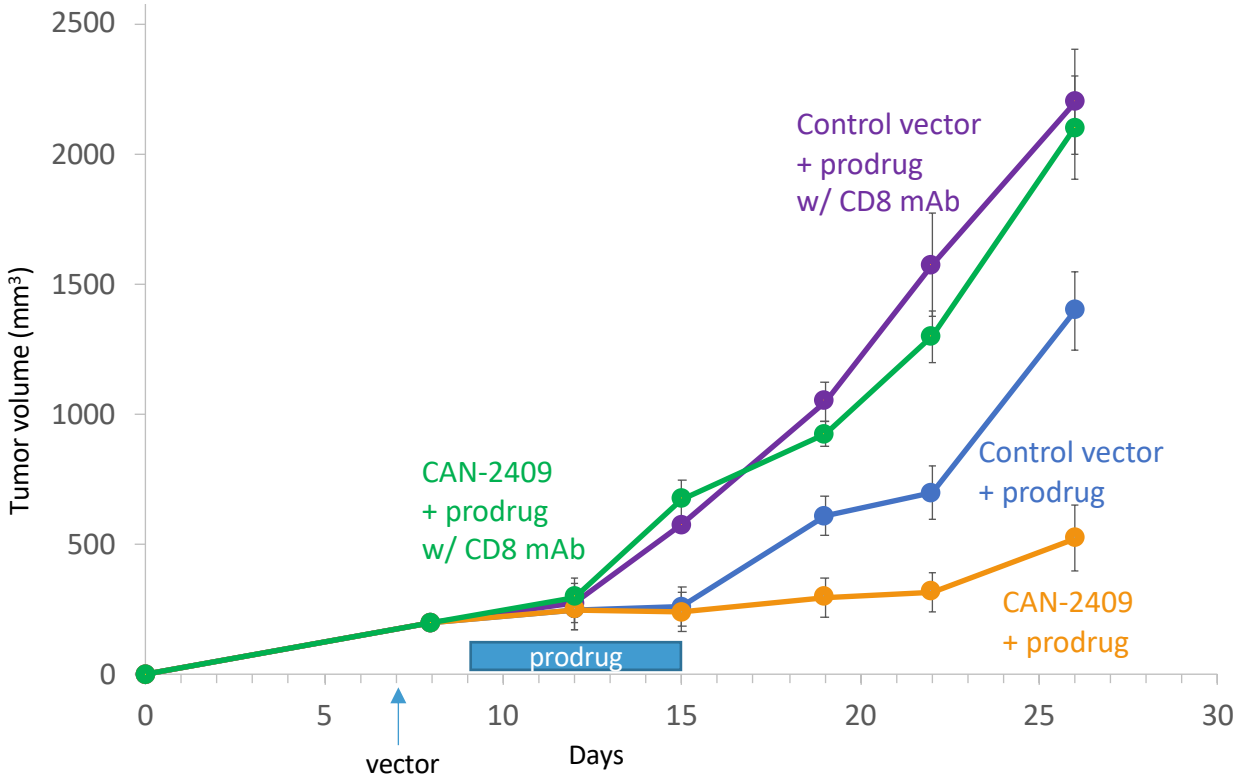
3. CAN-2409 induces CD8+ cytotoxic T cells

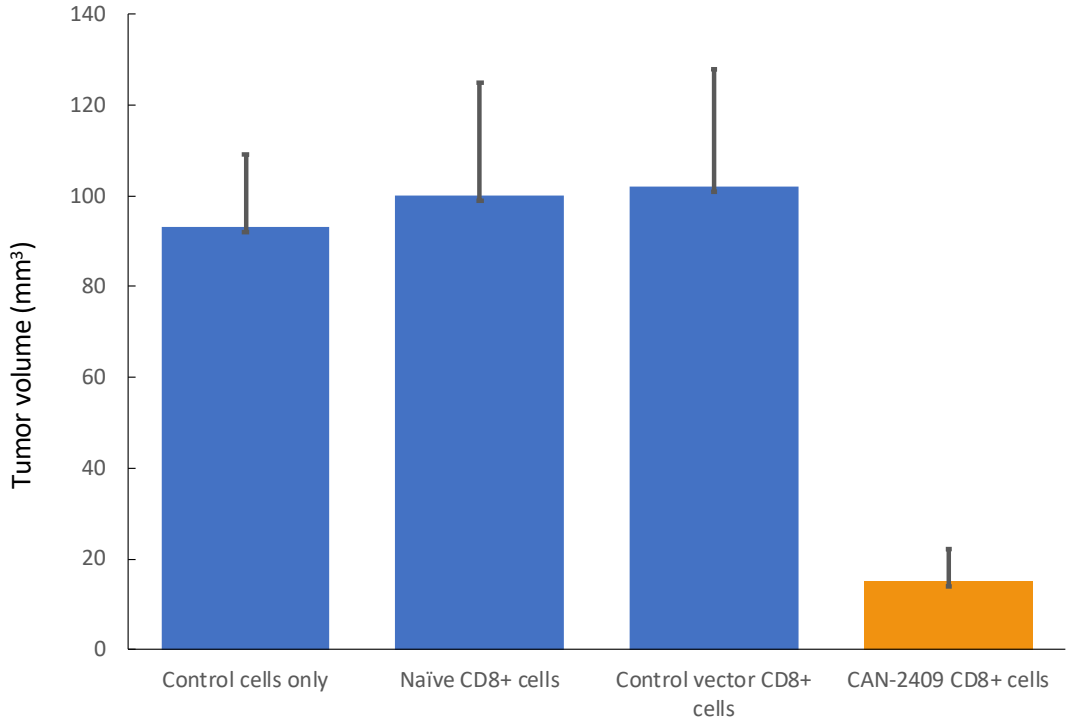


4. Local immunization yields systemic CD8+ T cell mediated anti-tumor response

CANDEL THERAPEUTICS

Response to CAN-2409 treatment is dependent on CD8+ T cells and transferable in mouse models of cancer





Depletion of CD8+ cells eliminates effect

Esophageal cancer model (AKR) flank tumors in C57Bl/6 mice (n = 8 per group)

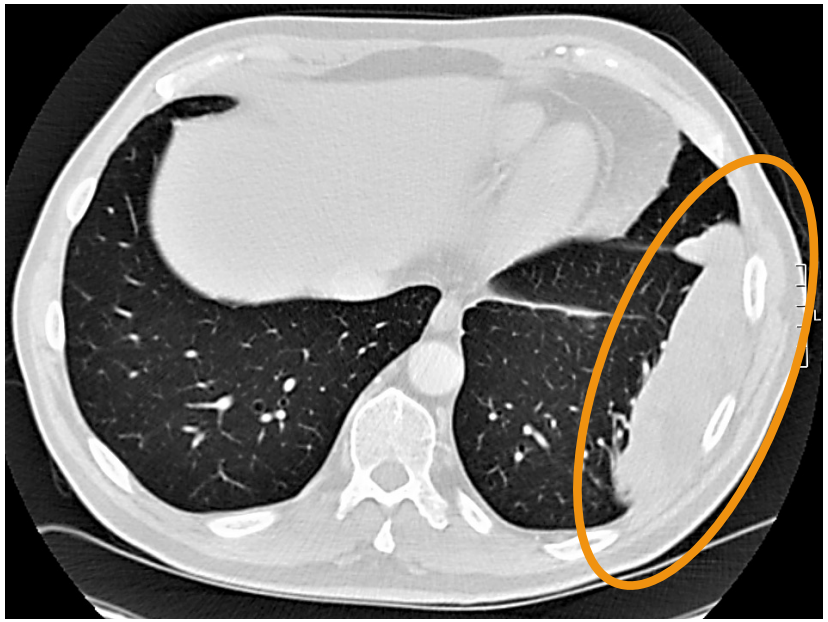
CD8+ cells from 'cured' mice protect naïve mice from tumor challenge

Winn Assay: Lung cancer model (TC-1) flank tumors in C57Bl/6 mice (n = 5 per group)

CANDEL THERAPEUTICS

Monotherapy activity of CAN-2409 in newly diagnosed NSCLC

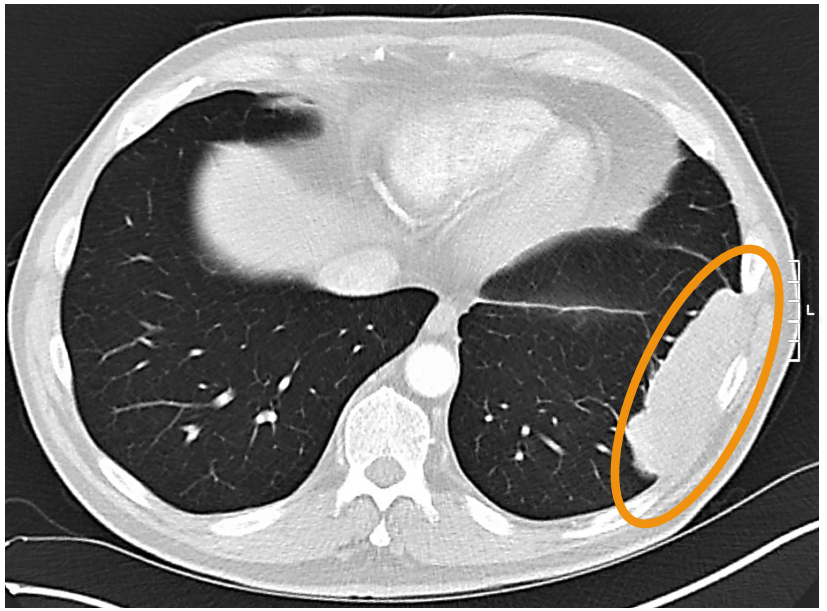
70 yr old male with a 14.8 cm stage IIIA sarcomatoid carcinoma



Day 0

Tumor Dimensions: 148 x 40 x 82 mm

$1x10^{12}$ vp dose



Day 22

Tumor Dimensions: 100 x 34 x 75 mm

Nearly 50% decrease in tumor volume* in 3 weeks

CANDEL THERAPEUTICS

* $\pi/6$ x L x W x H

Ongoing phase 2 clinical trial of CAN-2409 in combination with ICI in stage III/IV NSCLC

Stage III/IV Non-resectable NSCLC with inadequate response to ICI

N=96
(32 per cohort)

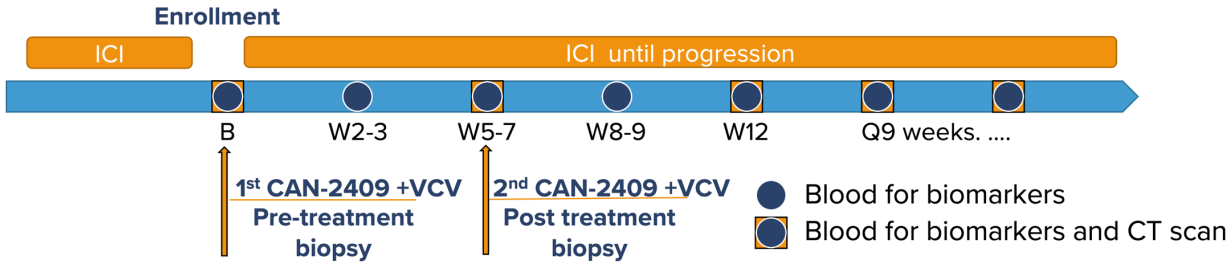
CAN-2409 and valacyclovir (2 courses)

with standard of care: Anti-PD-1/PD-L1 +/- chemotherapy

- Cohort 1 Stable Disease (>18 wks ICI)
- Cohort 2 Progressive Disease (>18 wks ICI)
- Cohort 3 Refractory Disease (>9 wks ICI)

Primary Endpoints
- Response by RECIST Criteria
- Safety

Secondary Endpoints
- Overall survival
- Progression free survival
- Quality of life
- Immunological biomarkers
- Response by iRECIST and itRECIST (Exploratory)



C Aggarwal et al. Abstract #9037 ASCO June 2022

CANDEL THERAPEUTICS

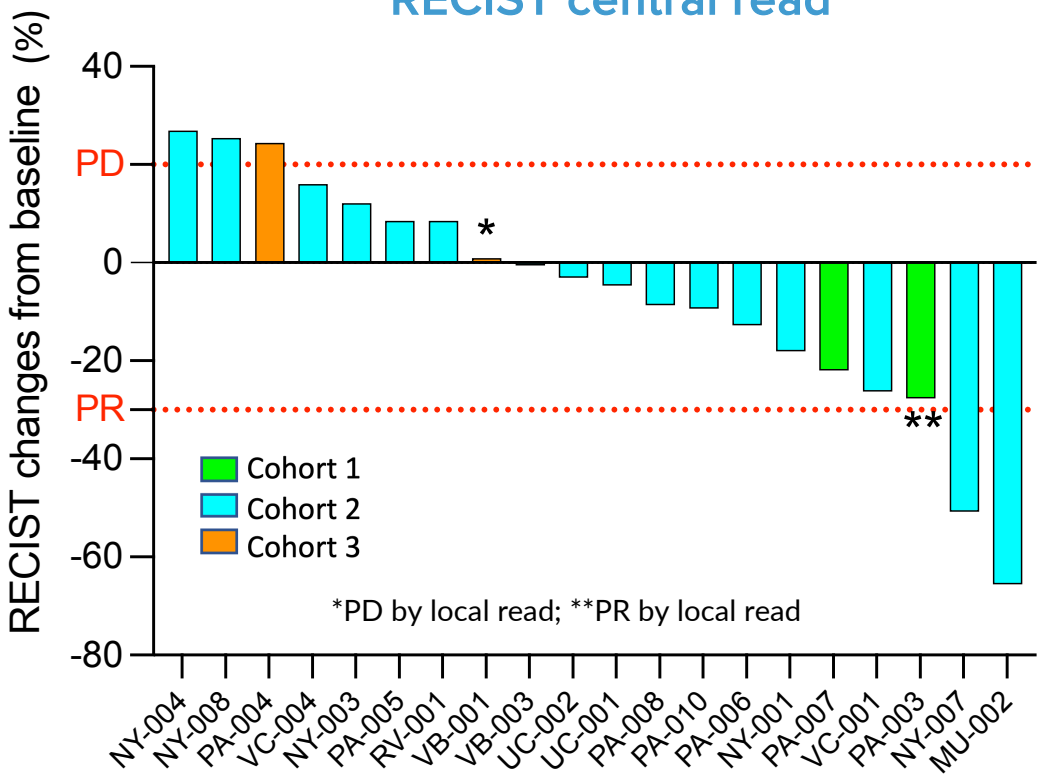
Cytotoxic T cell response and disease control in ongoing phase 2 clinical trial of CAN-2409 combined with continued ICI treatment in NSCLC

- Disease control rate of 87.5% in patients who were all progressing on anti-PD-1 therapy at entry
- Partial response in 15% of the patients
- Evidence of tumor regression in both injected and uninjected lesions
- Induction of local and systemic cytotoxic T cell response

C Aggarwal et al. Abstract #9037 ASCO June 2022

Clinical activity in first evaluable NSCLC patients after CAN-2409 treatment

Best responses RECIST central read



Efficacy measures

Cohort	Completed 12-week treatment	PR	SD	PD	DCR	DoR for PR (w)	DoR for SD (w)
1	2	1**	1	0	50%	24.1+	26.9
2	16	2	12	2	87.5%	26.7-37.9+	5.4+ - 50.4+
3	2	0	0	2*	0%	n/a	n/a

PR= partial response; SD= stable disease; PD= progressive disease; DCR = disease control rate
DoR PR= weeks from PR to progression
DoR SD=weeks from SD to progression
+ongoing response
*PD by local read; **PR by local read

Patients were considered evaluable if they completed both courses of CAN-2409 followed by valacyclovir and had > 12 weeks follow up

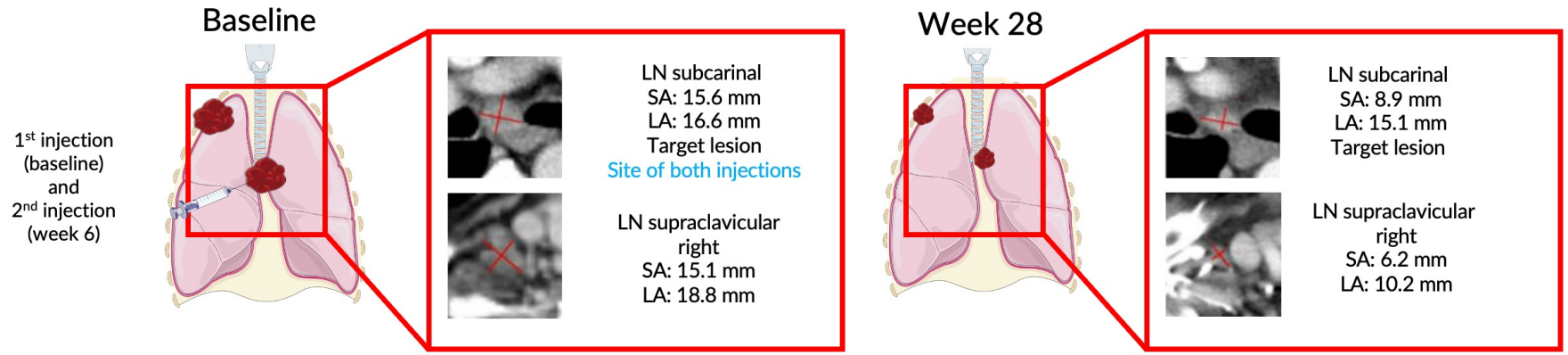
C Aggarwal et al. Abstract #9037 ASCO June 2022

CANDEL THERAPEUTICS

Evidence of abscopal effect

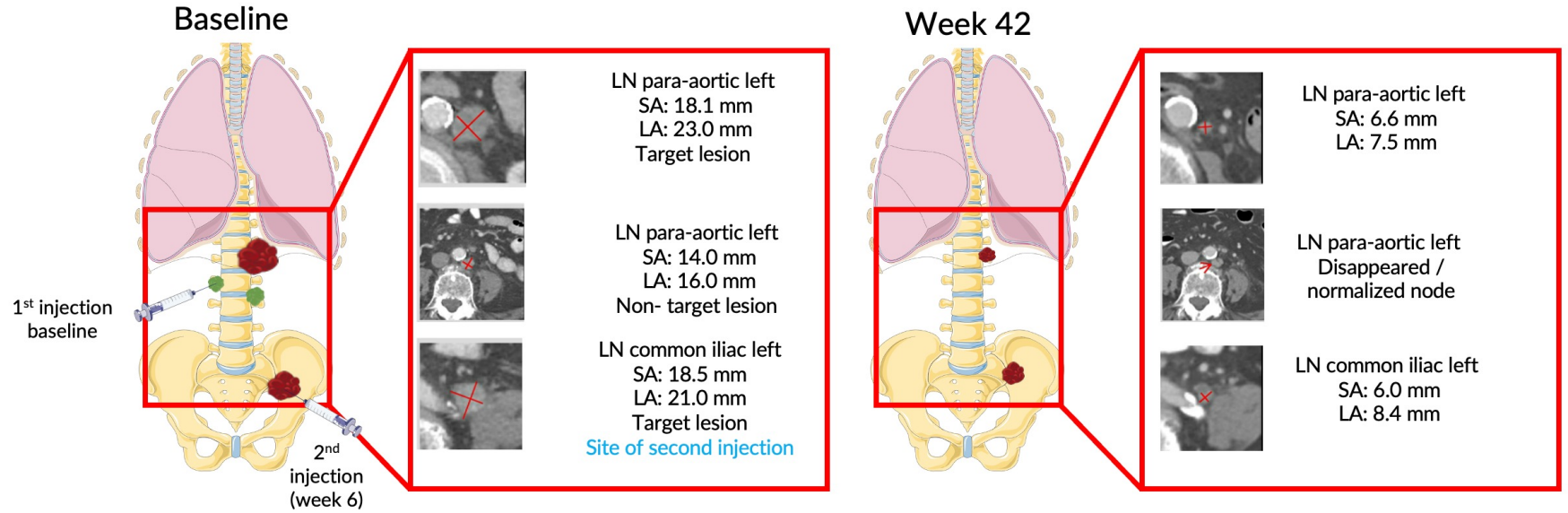
NY-007 (Cohort 2)

74M, Stage IV Non-SQ
PD-L1 <1%
Diagnosed Feb'19
cisplatin/etoposide Feb'19 to Jul'19, nivolumab monotherapy from Sep'19 thru trial
PR by local and central read



MU-002 (Cohort 2)

69F, Stage III 2013, Stage IV 2019 Non-SQ
PD-L1 unknown
Started pembro monotherapy Jan'20 thru trial
PR by local and central read



Legend
RECIST target lesions (red)
Non-target lesions (green)

Schematics to show general lesion injection orientation; not to scale
LN = lymph node; LA = long axis; SA = short axis

C Aggarwal et al. Abstract #9037 ASCO June 2022

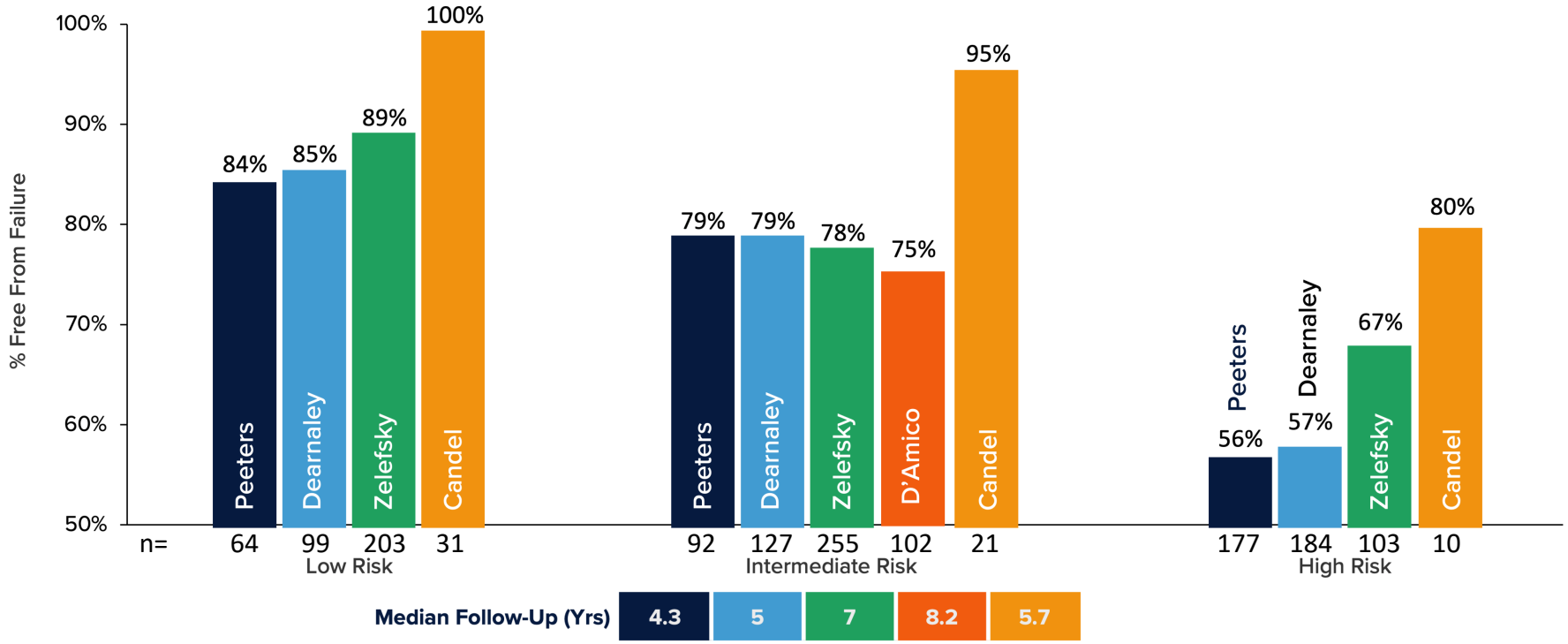
CANDEL THERAPEUTICS

CAN-2409 treatment for localized prostate cancer

Potentially first to market in large patient population with high unmet need

CANDEL THERAPEUTICS

Completed phase 2 trial shows consistently improved freedom from failure rates in newly diagnosed, localized prostate cancer



- Pathological complete response (pCR) observed in 93% of the biopsies available at 2yrs (37%-73% in control populations)
- Low risk patients achieved PSA < 2ng/ml in 77% of CAN-2409 treated patients versus 58% in control populations
- Significant increase in activated CD8+ T cells compared to baseline (p=0.0003)

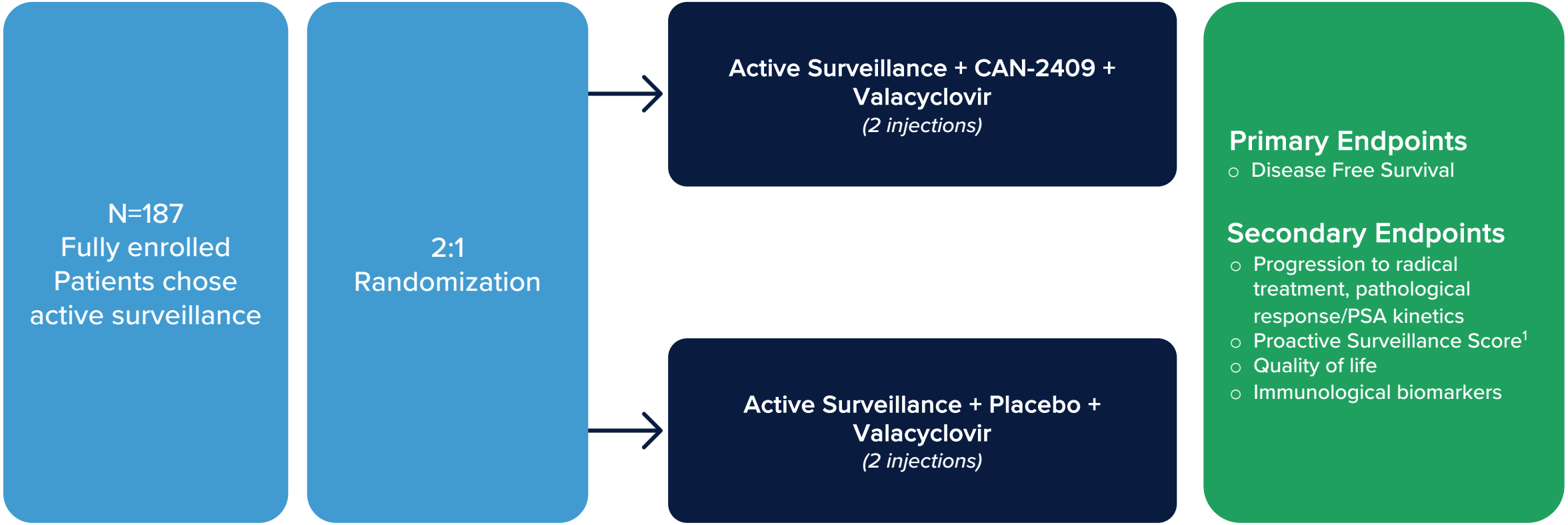
Clinical evidence supports ongoing phase 3 clinical trial of CAN-2409 in combination with SoC as first line treatment

Failure was measured from the start date of treatment until the date of treatment failure defined as clinical failure or biochemical failure, whichever first, according to the Phoenix ASTRO consensus (Nadir +2)

CANDEL THERAPEUTICS

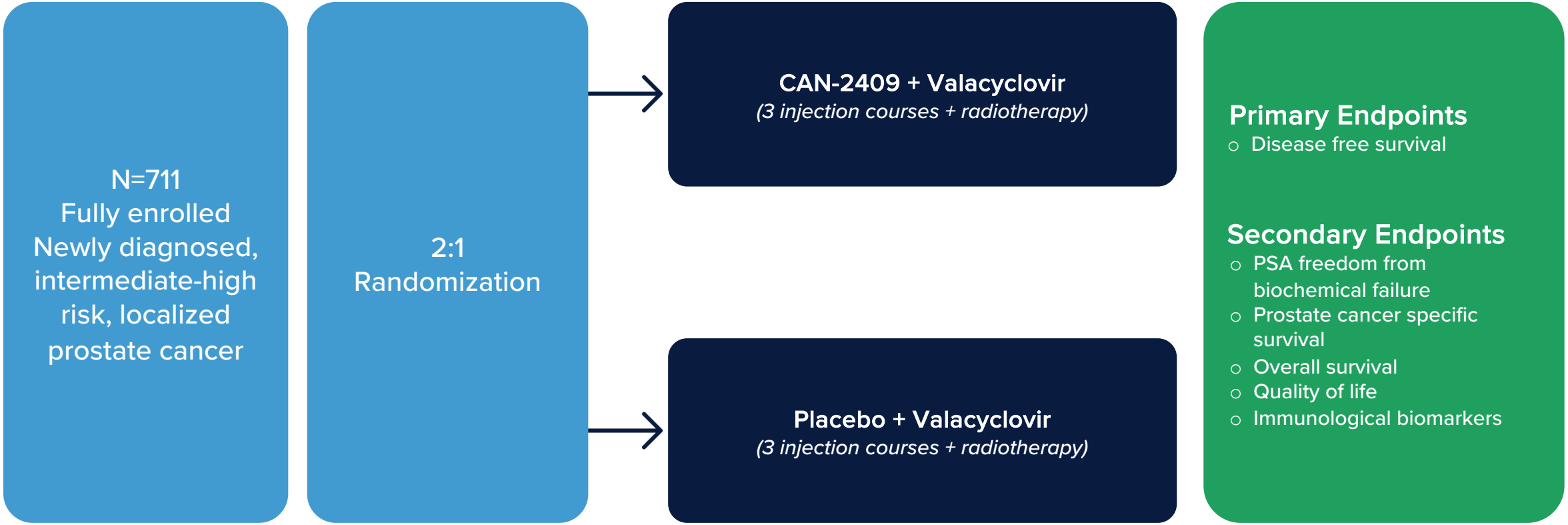
Fully accrued phase 2 clinical trial of CAN-2409 in patients with prostate cancer (active surveillance)

PI: Dr S Eggener (UChicago)



Fully accrued phase 3 clinical trial of CAN-2409 in patients with prostate cancer (newly diagnosed, intermediate/high risk)

PIs: Dr T DeWeese (JHU) and Dr P Scardino (MSKCC)



Conducted under agreement with FDA under Special Protocol Assessment

CAN-2409 treatment for High-grade glioma

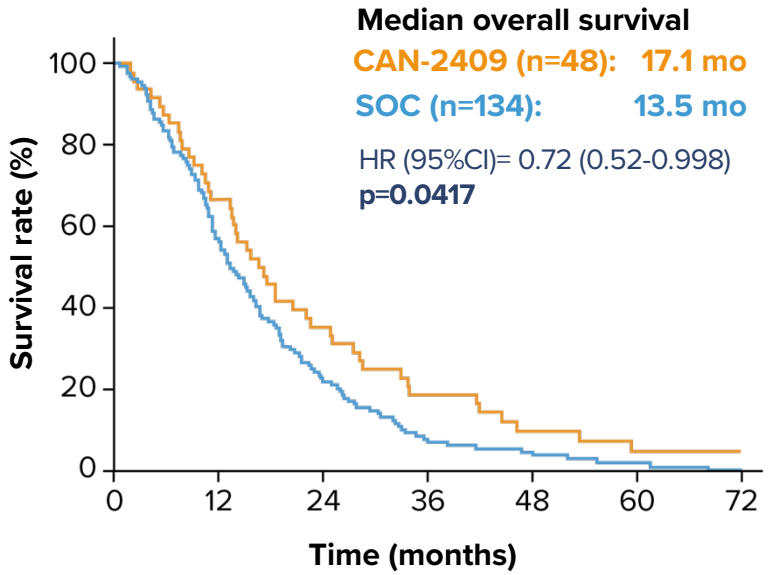
Driving significant survival benefit through a precision approach

CANDEL THERAPEUTICS

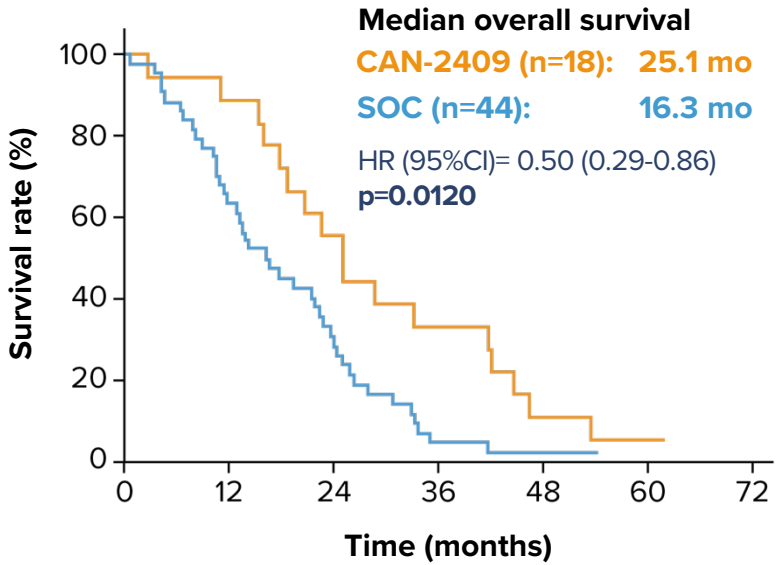
Significant survival benefit after CAN-2409 treatment

Compared to contemporary controls fulfilling the same inclusion and exclusion criteria

All patients: All high-grade glioma, All resection extent



Prespecified subgroup: glioblastoma with gross total resection



54% Relative improvement
(8.8 mo median survival benefit)

Clinical evidence supports adaptive phase 3 clinical trial of CAN-2409 in high-grade glioma patients undergoing Gross Total Resection and standard of care chemoradiation (reviewed with FDA)

Results have also been confirmed by comparison to independent control cohort matched for known prognostic factors

CANDEL THERAPEUTICS

Leadership team with decades of experience in oncology, immunology, and drug development

Paul-Peter Tak, M.D., Ph.D., FMedSci

President & Chief Executive Officer

gsk · ViiV Healthcare · Flagship Pioneering · Amsterdam UMC University Medical Centers

Nathan Caffo

Chief Business Officer

ALX ONCOLOGY · presage · applied biosystems · PERLEGEN SCIENCES

Christopher Matheny, Pharm.D., Ph.D.

Vice President, Development Leader

gsk

Seshu Tyagarajan, Ph.D., RAC

Chief Technical and Development Officer

NOVARTIS · MERCK · Roche · Biogen · Lilly

Francesca Barone, M.D., Ph.D.

Chief Scientific Officer

Kintai THERAPEUTICS · UNIVERSITY OF BIRMINGHAM

John Canepa

Chief Financial Officer

FREQUENCY THERAPEUTICS · agilis · ASTERAND BIOSCIENCE

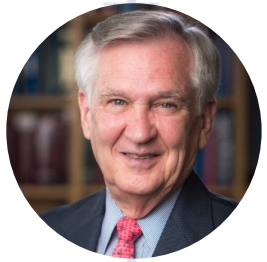
Susan Stewart, J.D.

Chief Regulatory Officer

TOKAI MEDICAL PRODUCTS · genzyme · Abbott

Research Advisory Board of premier thought leaders

James Allison, Ph.D.
Chair of the Department of Immunology
MD Anderson Cancer Center
Director of the Parker Institute for Cancer Research
2018 Nobel Recipient



Edward Benz, M.D.
President and CEO Emeritus
Dana-Farber Cancer Institute

Henry Brem, M.D.
Director, Department of Neurosurgery
Professor of Neurosurgery
Johns Hopkins University

Roy Herbst, M.D., Ph.D.
Chief of Medical Oncology
Yale Cancer Center

Philip Kantoff, M.D.
Former Chair, Department of Medicine
Memorial Sloan Kettering Cancer Center

Padmanee Sharma, M.D., Ph.D.
Professor of Genitourinary Medical Oncology and Immunology
MD Anderson Cancer Center

Candel overview: Oncolytic viral immunotherapies

- Multiple assets with near- and mid-term inflection points
  - CAN-2409
    - Phase 2 NSCLC; updated clinical data (Q4 2022)
    - Phase 3 HGG; commencing (mid-2022)
    - Phase 1 HGG; combination with Opdivo clinical activity data (Q4 2022)
    - Phase 2 localized, low-to-intermediate-risk prostate cancer (active surveillance) (Q4 2023)
    - Phase 3 localized, intermediate-to-high-risk prostate cancer (Q4 2024)
  - CAN-3110
    - Phase 1 recurrent HGG; updated clinical and biomarker data (Q4 2022)
  - enLIGHTEN™ Discovery Platform based on HSV technology
- Multibillion dollar market opportunities
- Management team with proven success in immunology, oncology, and development
- Recent IPO provided net proceeds of $71.3M plus $20.0M of long-term debt in Feb 2022
- Cash of $94.3M as of March 31, 2022 - funds currently planned operations into Q4 2023