3Q 2021 Financial Results and Corporate Update

November 2, 2021

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TODAY'S AGENDA

OPENING REMARKS
Steve Hoerter
President and Chief Executive Officer

U.S. QINLOCK COMMERCIAL RESULTS
Dan Martin
Senior Vice President and Chief Commercial Officer

CLINICAL PROGRAM PROGRESS
Matt Sherman, M.D.
Executive Vice President and Chief Medical Officer

FINANCIAL RESULTS FROM
Tucker Kelly
Executive Vice President, Chief Financial Officer and Treasurer

CLOSING REMARKS
Steve Hoerter
President and Chief Executive Officer

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OPENING REMARKS

Steve Hoerter

President and Chief Executive Officer

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INNOVATIVE PROGRAMS LEADING TO TRANSFORMATIVE GROWTH

Executing on our mission to discover, develop, and deliver important new medicines to patients for the **treatment of cancer**

QINLOCK® (ripretinib) 50 mg tablets

- Established QINLOCK as the clear standard of care in fourth-line GIST
- Phase 3 data in 2nd line GIST (INTRIGUE) expected this quarter
- EU approval in 4th line GIST expected this quarter

Positioned to Rapidly Advance Clinical Pipeline[1]

Vimseltinib, our potential best-in-class CSF1R inhibitor, Phase 3 MOTION study initiation expected this quarter

Rebastinib, our first-in-class TIE2 inhibitor, in combination with paclitaxel Phase 3 study initiation expected in 2022

DCC-3116, our first-in-class ULK program, initial data from the Phase 1 dose escalation expected in 2022

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Notes: CSF1R=colony-stimulating factor 1 receptor; EU=European Union; GIST=gastrointestinal stromal tumor; TIE2=TEK tyrosine kinase; ULK=unc-51-like autophagy-activating kinase; (1) Represent planned 2021 and 2022 milestones.

U.S. QINLOCK COMMERCIAL RESULTS

Dan Martin

Senior Vice President and Chief Commercial Officer

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U.S. LAUNCH SUCCESS CONTINUED IN 3Q 2021

U.S. Net Sales in 3Q 2021

$20.0 MILLION

Unique Prescribers[1]

~530

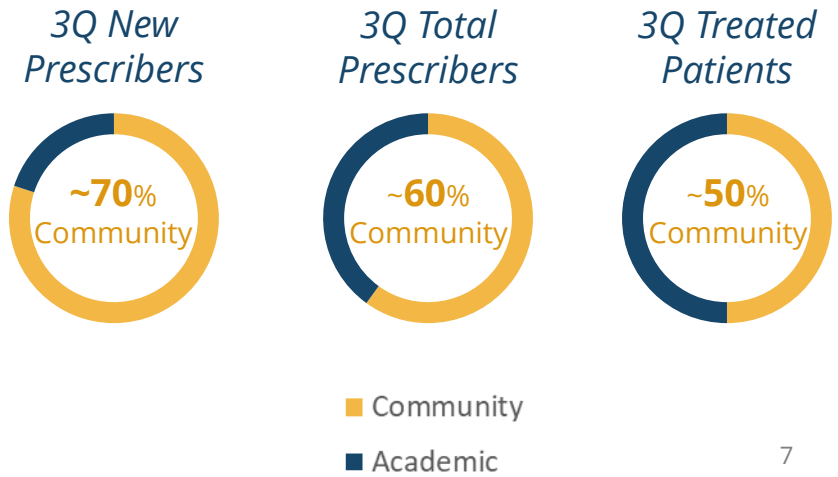
Unique Institutions[1]

~500

3Q 2021 Highlights

- Maintained high levels of reach, frequency, share-of-voice, and product awareness[2,3]
- HCP perceptions of QINLOCK remain extremely positive across all product attributes[2]
- Increased launch-to-date prescriber base by ~20% QoQ with the majority of growth coming from the community setting

Continued Progress Penetrating the Community Setting in 3Q



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Notes: GIST=gastrointestinal stromal tumor; (1) Data are from May 22, 2020 – September 30, 2021; (2) Deciphera ATU survey, 3Q 2021; (3) Among physicians treating late-line GIST patients.

CLINICAL PROGRAM PROGRESS

Matt Sherman, M.D.

Executive Vice President and Chief Medical Officer

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TOP-LINE DATA EXPECTED THIS QUARTER

Initiated December 2018

122 Active Sites

22 Countries

Prior Imatinib Therapy

Ripretinib
150 mg QD

1:1 Randomization Open-label Study

Enrollment Complete
n=453

Sunitinib
50 mg QD

PRIMARY ENDPOINT
= Progression-Free Survival

No Cross-over Option

TOP-LINE DATA
Expected This Quarter

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Notes: GIST=gastrointestinal stromal tumor; QD=daily.

A MULTICENTER, RANDOMIZED, PLACEBO-CONTROLED, DOUBLE-BLIND STUDY

International Study with ~40 Sites

DOUBLE-BLIND PERIOD	OPEN-LABEL PERIOD
Part 1: eligible study participants will be assigned to receive either vimseltinib or matching placebo for 24 weeks.	**Part 2**: a long-term treatment phase in which all participants receive open-label vimseltinib.

Vimseltinib
30 mg BIW (24 weeks)
n = 80

2:1 Randomization
n=120

Placebo
(24 weeks)
n = 40

Open-Label Study
Patients have the option to continue or cross over to vimseltinib 30 mg BIW

Phase 3 Motion Study will assess the efficacy and safety of vimseltinib for the treatment of patients with TGCT not amenable to surgical resection

Primary Endpoint:

- Objective response rate (ORR) at 25 weeks

Key Secondary Endpoints:

- Range of motion (ROM)
- Patient-reported outcomes
- ORR per tumor volume score

STUDY INITIATION IS PLANNED FOR THIS QUARTER

Notes: BIW=twice weekly; TGCT=tenosynovial giant cell tumor.

VIMSELTINIB | ONGOING PHASE 1/2 STUDY OF PATIENTS WITH TGCT

ENCOURAGING RESULTS SUPPORT FURTHER DEVELOPMENT

- In patients with TGCT not amenable to surgical resection, vimseltinib demonstrated encouraging preliminary efficacy
- Vimseltinib was generally well-tolerated, and the safety profile remains manageable with longer-term follow-up across all Phase 1 dose cohorts and at the recommended Phase 2 dose in Cohort A
- These results support further evaluation of vimseltinib in the MOTION study, a randomized, placebo-controlled, Phase 3 trial in patients with TGCT not amenable to surgical resection

OBJECTIVE RESPONSE RATE

47%

Across all dose cohorts of Phase 1 and Phase 2 Cohort A

DEEPENING AND DURABLE RESPONSES OBSERVED ACROSS ALL DOSE COHORTS OF PHASE 1

ACTIVE PATIENTS

PHASE 1	PHASE 2 COHORT A
72%	83%

NO ABNORMALITIES IN BILIRUBIN LEVELS REPORTED

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Notes: Data presented at the ESMO Congress 2021; results are reported for patients with TGCT with a data cutoff of June 7, 2021; TGCT= tenosynovial giant cell tumor.

PROMISING RESULTS SUPPORT FURTHER DEVELOPMENT

The updated safety and efficacy of rebastinib at 50 mg BID in combination with paclitaxel shows encouraging results in heavily pretreated patients with PROC, with an acceptable safety profile, supporting further development.

Pivotal Phase 3 study in PROC is anticipated to start in 2022, subject to discussions with health authorities

MEDIAN PFS

9.1
MONTHS

44% of events

CLINICAL BENEFIT RATE

76%

at 16 weeks[2]

OBJECTIVE RESPONSE RATE[1]

38%
(confirmed and unconfirmed)

29%
(confirmed)

CA-125 RESPONSE

73%

occurred in 19/26 patients

MEDIAN DURATION OF TREATMENT

6.5
MONTHS

range 0.5–15.4 months

A MANAGEABLE SAFETY PROFILE

Most AEs reported were Grade ≤2

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Notes: Data presented at the ESMO Congress 2021; results are reported for patients in the platinum-resistant ovarian cancer expansion cohort with a cutoff date of June 22, 2021; safety population n=38, modified intent-to-treat population n=34; AE=adverse event; BID= twice daily; PFS=progression-free survival; PROC=platinum resistant ovarian cancer; (1) Includes 13 patients with objective response (10 confirmed, 3 to be confirmed at future follow-up), 18 stable disease, and 1 progressive disease; (2) Clinical benefit rate at 16 weeks was defined as overall response of CR, PR, or SD according to RECIST v1.1 at the 16-week response assessments, respectively.

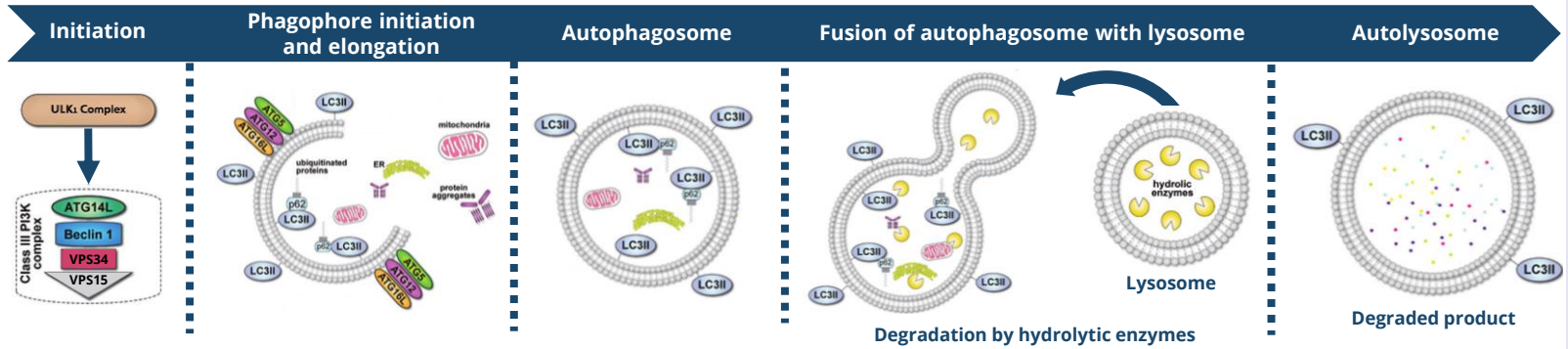
DCC-3116

POTENT AND SELECTIVE ULK INHIBITOR DESIGNED TO INHIBIT AUTOPHAGY

First-in-class switch-control ULK kinase inhibitor opportunity for cancers caused by RAS/RAF mutations

- Cancers caused by RAS/RAF mutations have high basal levels of autophagy and MAPK pathway inhibitors, as well as other signaling pathway inhibitors, induce autophagy as a survival mechanism
- DCC-3116 observed preclinically to durably and potently inhibit autophagy in RAS/RAF mutant cancer cell lines through the inhibition of ULK kinase
- Combination of DCC-3116 and MAPK pathway inhibitors have been observed to synergize to block RAS/RAF mutant cancers *in vivo*

Initiated Phase 1 Study in 2Q 2021



Adapted from: Ndoye A and Weeraratna AT. Autophagy- An emerging target for melanoma therapy [version 1]. F1000Research 2016, 5:1888. (doi: 10.12688/f1000research.8347.1)

Highly potent and selective (IC_{50} at 1 mM ATP)

- ULK1 4.7 nM and ULK2 35 nM
- No off-target kinases within 30-fold of ULK1
- 5 kinases within 100-fold of ULK1
- Designed to avoid CNS exposure

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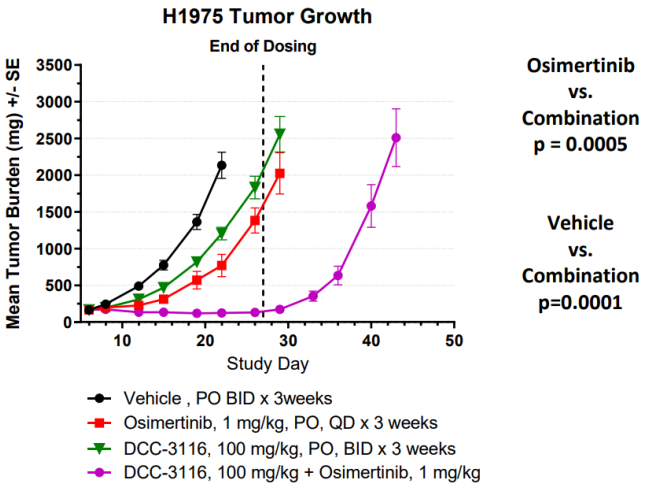
Notes: ATP=adenosine triphosphate; CNS=central nervous system; FDA=U.S. Food and Drug Administration; IC_{50}=half maximal inhibitory concentration; IND=investigational new drug; MAPK=mitogen-activated protein kinase; RAF=rapidly accelerated fibrosarcoma serine/threonine protein kinase; RAS=rat sarcoma gene; ULK=unc-51-like autophagy-activating kinase.

SCIENTIFIC EVIDENCE BROADENS ROLE OF AUTOPHAGY INHIBITION IN CANCER

DCC-3116 SYNERGIZES WITH EGFR INHIBITORS IN NSCLC MODEL

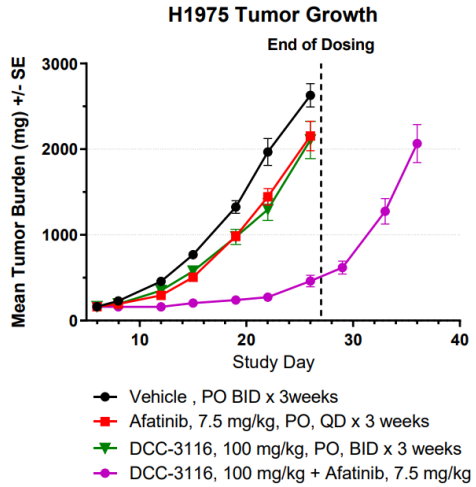
DCC-3116 IN COMBINATION WITH OSIMERTINIB



Osimertinib vs. Combination p = 0.0005

Vehicle vs. Combination p=0.0001

DCC-3116 IN COMBINATION WITH AFATINIB



Afatinib vs. Combination p= 0.0001

Vehicle vs. Combination p=0.0001

DCC-3116 decreased tumor burden in combination with osimertinib and afatinib in the H1975 EGFR mutant xenograft model

GROWING VALIDATION FOR ROLE OF AUTOPHAGY IN CANCER

Science Translational Medicine

RESEARCH ARTICLE | CANCER

ULK1 inhibition promotes oxidative stress–induced differentiation and sensitizes leukemic stem cells to targeted therapy

Ianniciello, A., Zarou, M. M., Rattigan, K. M. et al. *Sci Transl Med* 13, eabd5016 (2021).

nature cancer

ULK1 inhibition overcomes compromised antigen presentation and restores antitumor immunity in LKB1-mutant lung cancer

Deng, J., Thennavan, A., Dolgalev, I. et al. *Nat Cancer* 2, 503–514 (2021).

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Notes: BID=twice daily; EGFR=epidermal growth factor receptor; LKB1=liver kinase B1; NSCLC=non-small cell lung cancer; PO=by mouth; QD=once daily; ULK=unc-51-like autophagy-activating kinase.

FINANCIAL RESULTS

Tucker Kelly

Executive Vice President, Chief Financial Officer and Treasurer

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FINANCIAL HIGHLIGHTS

As of September 30, 2021

Shares Outstanding

58.3 MM

(basic)

65.6 MM

(fully-diluted)

Cash, Cash Equivalents & Marketable Securities

$392 MM

Cash Expected to Fund Operating Expenses and CapEx into 1H 2023

CLOSING REMARKS

Steve Hoerter

President and Chief Executive Officer

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Q&A

THANK YOU