Abstract # 343497 QUILT-88: NANT Pancreatic Cancer Vaccine — Trial in Progress

Open-label, randomized, comparative phase 2/3 study of combination immunotherapy plus standard-of-care chemotherapy and SBRT versus standard-of-care chemotherapy for the treatment of locally advanced or metastatic pancreatic cancer

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BACKGROUND

Pancreatic cancer will claim an estimated 47,050 lives in the USA in 2020, with an expected 5 year survival of 10%. Thus there is an urgent need for novel treatment options in this disease. We hypothesize that effective response against pancreatic cancer requires a coordinated approach that orchestrates both the innate and adaptive immune system. We further hypothesize that by orchestrating the activation of the entire immune system, we could accomplish immunogenic cell death with durable responses in this disease. We describe a novel combination immunotherapy protocol of low-dose chemoradiation, cytokine-induced NK and T cell activation via N-803 (Anktiva, IL-15 cytokine fusion protein), and off-the-shelf PDL1-targeted high-affinity NK cell (PDL1 t-haNK) infusion.

STUDY ENDPOINTS

Primary Efficacy Endpoints:

- PFS per RECIST V1.1 (Cohorts A and B).
- OS (Cohort C).
- Secondary Efficacy Endpoints:
- ORR, CR rate, DoR, and DCR (confirmed CR or PR, or SD for at least 2 months) by RECIST V1.1
- OS (Cohorts A and B).
- PFS per RECIST V1.1 (Cohort C).
- QoL by PROs.
- Safety Endpoints:
- Incidence of treatment-emergent adverse events (AEs) and serious AEs (SAEs), graded using the National Cancer Institute (NCI) Common
 The Control of the National Cancer Control of the National Cancer Institute (NCI)
- Terminology Criteria for Adverse Events (CTCAE) Version 5.0. Safety laboratory tests.
- Vital signs.
- Exploratory Endpoints:
- PFS, ORR, CR rate, DoR, and DCR per iRECIST.
- CA 19-9 levels and correlations with subject outcomes.

STUDY DESIGN

COHORT A

First Line Pancreatic

Locally Advanced or Metastatic

Pancreatic Cancer treated with

Gemcitabine + Nab-Paclitaxel

Randomize 1:1

Experimental Arm

Nab-paclitaxel +

Gemcitabine +

Cyclophosphamide

Aldoxorubicin

MAJOR INCLUSION CRITERIA

For Cohort A, subjects must have initially received, or are currently

paclitaxel for at least 16 weeks and have confirmed PR, CR, or SD

Duration of actual initial treatment may be unlimited as long as no

evidence of disease progression is noted by the Investigator at the

receiving, continuous treatment with gemcitabine plus nab-

prior to receiving first-line maintenance therapy on this study.

b. For Cohort B, subjects must have PD after receiving initial

treatment with FOLFOX, FOLFIRINOX, or a gemcitabine- or

paclitaxel-based therapy for pancreatic cancer. Subjects who

therapy was clinically contraindicated are allowed.

neoadiuvant, adjuvant, and/or metastatic settings.

discontinued prior therapy due to toxicity, intolerance, or available

c. For Cohort C. subjects must have PD after receiving at least 2

lines of therapy for pancreatic cancer, including but not limited to

Anktiva

Control Arm

Nab-paclitaxel +

Gemcitabine +

time of randomization.

Experimental Arm

Nab-paclitaxel +

Gemcitabine +

Cyclophosphamide

Anktiva

Aldoxorubicin

PD-L1 t-baNK⁴

COHORT B Second Line Pancreatic

Locally Advanced or Metastatic Pancreatic Cancer treated with Gemeitabine or pacitaxel-based therapy or FOLFOX or FOLFIRINOX

Randomize 1:1 Control Arm Experimen Nab-paciti Leucovorin Gemcitati Gemcitati

ol Arm
NLiposome
ovorin
FU

Experimental Arm
Nab-pacilitaxel +
Gemicitabine +
Cyclophosphamide
Anktiva
Aldoxorubicin
PD-L1 thaNK*

COHORT C

Third-Line or Greater Pancreatic

Locally Advanced or Metastatic Pancreatic Cancer Treated with at Least 2 Lines of Therapy

PD-L1 t-haNK

Experimental Arm
Nab-paclitaxel +
Gemcitabine +
Cyclophosphamide
N-803
Aldoxorubicin

MAJOR EXCLUSION CRITERIA

a. Absolute neutrophil count (ANC) < 1000 cells/mm3.

b. Platelet count < 100,000 cells/mm3. Aldoxorubicin HCI, N-803 and PD-L1 t-haNK ImmunityBio, Inc. Clinical Trial Protocol: QUILT-88 Amendment 5

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c. Hemoglobin < 9 g/dL.

with liver metastases).

- d. Total bilirubin greater than two times the upper limit of normal (ULN; unless the subject has documented Gilbert's syndrome). e. Aspartate aminotransferase (AST [SGOT]) or alanine aminotransferase (ALT [SGPT]) > 2.5 x ULN (> 5 x ULN in subjects
- f. Alkaline phosphatase (ALP) levels > 2.5 x ULN (> 5 x ULN in subjects with liver metastases, or > 10 x ULN in subjects with bone metastases).
- g. Serum creatinine > 2.0 mg/dL or 177 µmol/L.
- h. Serum anion gap > 16 mEg/L or arterial blood with pH < 7.3.
- i. Albumin < 3.0.
- j. Ascites requiring paracentesis.

STUDY EXPERIMENTAL TREATMENT

Days 1 and 15, every 4 weeks:

- Nab-paclitaxel
- Gemcitabine

Days 1-5 and 15-19, every 4 weeks:

Cyclophosphamide

Days 1, 8, 15, and 22; for first cycle only:

- SBRT (not to exceed 8 Gy, exact dose to be determined by the radiation oncologist)
- Day 8, every 4 weeks:
- Aldoxorubicin HCI
- N-803 (15 μg/kg SC)
 Days 1, 8, and 15; every 4 weeks:
- PD-L1 t-haNK (~2 x 109 cells/dose IV)

CONTACT

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REFERENCES

- An Antibody Designed to Improve Adoptive NK-Cell Therapy Inhibits Pancreatic Cancer Progression in a Murine Model Jaemin Lee, Tae
- Heung Kang, Wonbeak Yoo, Hyunji Choi, Seongyea Jo, Kyungsu Kong, Sang-Rae Lee, Sun-Uk Kim, Ji-Su Kim, Duck Cho, Janghwan Kim, Jeong-Yoon Kim, Eun-
- Su Kim, Duck Cho, Janghwan Kim, Jeong-Yoon Kim, Eun-Soo Kwon and Seokho Kim
 DOI: 10.1158/2326-6066 CIR-18-0317 Published February 2019
- Oh E, Min B, Li Y, Lian C, Hong J, Park GM, Yang B, Cho SY Hwang YK, Yun CO. Cryopreserved Human Natural Killer Cells Exhibit Potent Antitumor Efficacy against Orthotopic Pancreatic Cancer through Efficient Tumor-Homing and Cytolytic Ability (Running Title: Cryopreserved NK Cells Exhibit Antitumor Effect) Cancers (Basel). 2019 Jul 9;11(7):966. doi: 10.3390/cancers11070966.



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