# Phase III study of NUC-1031 + cisplatin vs gemcitabine + cisplatin for first-line treatment of patients with advanced biliary tract cancer

#### BACKGROUND

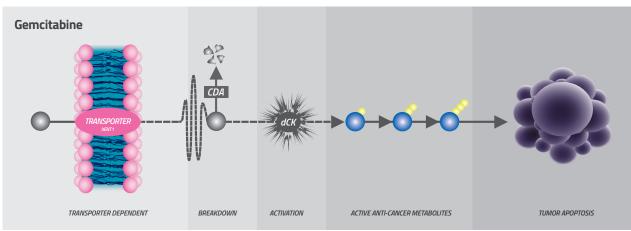
#### Biliary Tract Cancer (BTC)

- Aggressive cancer with a poor prognosis
- Heterogenous disease consisting of distinct subgroups
- Intra and extra-hepatic cholangiocarcinoma, gallbladder, or ampullary
- No approved agents exist for the first-line treatment of advanced BTC
- Current standard of care: gemcitabine + cisplatin
- Median overall survival (OS) 11.7 months (ABC-02)<sup>1</sup>
- Resistance to chemotherapy is associated with poor survival
- Effective new agents and combinations are required

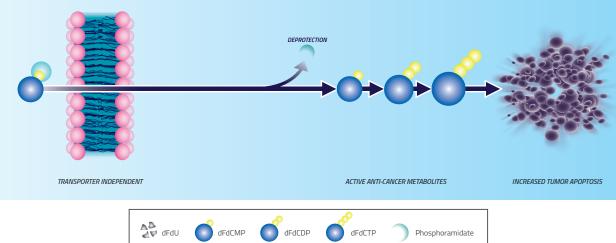
## NUC-1031: A ProTide transformation of gemcitabine

- A new class of anti-cancer agents
- Overcomes key gemcitabine resistance mechanisms<sup>2</sup>
- Cellular uptake independent of nucleoside transporters (hENT1)
- Activation independent of deoxycytidine kinase (dCK)
- Protected from breakdown by cytidine deaminase (CDA)
- In comparison to gemcitabine, NUC-1031 has<sup>3</sup>:
- Greater plasma stability (t<sub>1/2</sub> 8.3 hours vs 1.5 hours)
- Increased intracellular levels of active anti-cancer metabolite, dFdCTP (217x)
- Reduced toxic metabolites

## NUC-1031 bypasses the key cancer resistance pathways of gemcitabine



NUC-1031



ERENCES: 1. Valle et al. N Engl J Med 2010; 362:1273-1281. 2. Slusarczyk et al. J Med Chem 2014; 57:1531-1542. 3. Blagden et al. Br J Cancer 2018; 119:815-822. 4. McNamara MG et al. 2020 REVIATIONS: BTC: biliary tract cancer OS: overall survival hENT1: human equilibrative nucleoside transporter 1 dCK: deoxycytidine kinase CDA: cytidine deaminase dFdCTP: diflu

# Phase 1b ABC-08 study: NUC-1031 + cisplatin<sup>4</sup>

- Favorable safety profile that was tolerated over multiple cycles;
- Encouraging efficacy with activity across all BTC subtypes (44% ORR\*)

- NUTIDE 121 **INCLUSION CRITERIA**
- Previously untreated histologically or cytologically-confirmed adenocarcinoma of the biliary tract (intra and extra-hepatic cholangiocarcinoma, gallbladder, or ampullary cancers) that is locally advanced, unresectable or metastatic
- ≥18 years of age
- Life expectancy  $\geq$  16 weeks
- ECOG PS 0 or 1
- Adequate biliary drainage with no evidence of ongoing infection

# RANDOMIZATION STRATA

Measurable Disease
Metastatic Disease



725 mg/m<sup>2</sup> cisplatin 25 mg/m<sup>2</sup>

dosing on days 1 & 8

of a 21-day cycle

NUC-1031

# **PRIMARY ENDPOINTS**

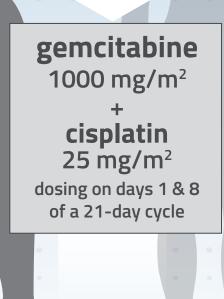
• OS • ORR

# **SECONDARY ENDPOINTS**

• PFS • DoR • Safety • PK • QoL

Oncologist. Epub ahead of print. oro-deoxycytidine triphosphate AE: adverse event DLT: dose-limiting toxicity ITT: intention to treat ECOG: eastern cooperative oncology group ORR: objective response rate PS: performance status

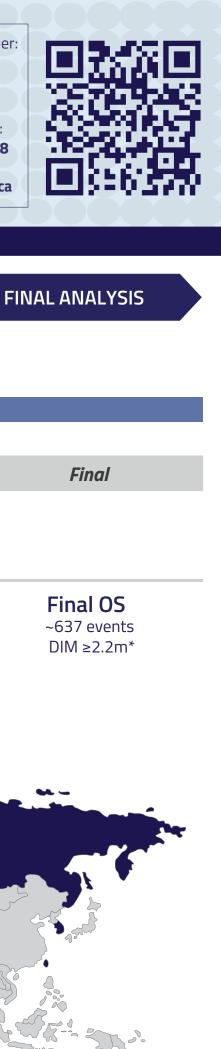
Efficacy evaluable patients



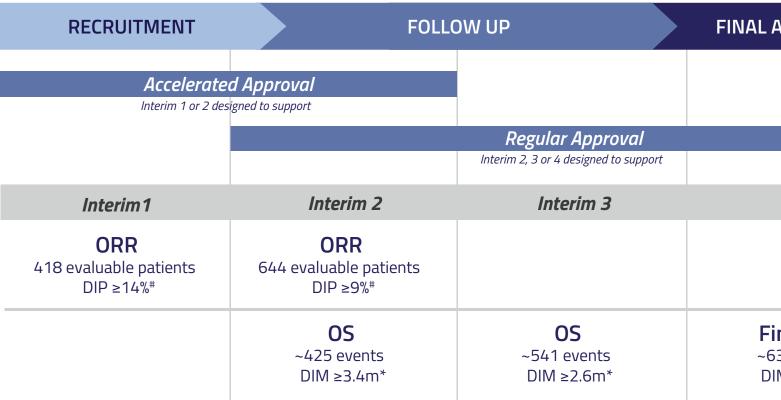
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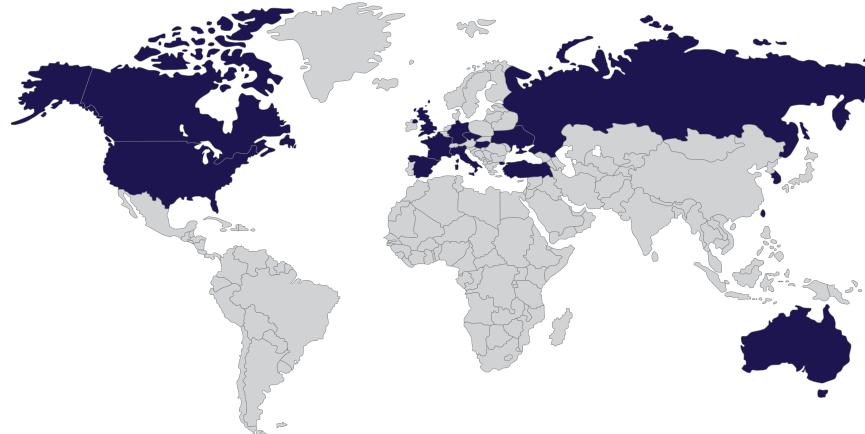


# NuTide:121 (Statistical Plan)



<sup>#</sup> DIP = Difference in observed proportions (vs. an estimated 19.0%) for statistical significance. Measu DIM = Difference in observed medians (vs. an estimated 11.7 months) for statistical significance.

#### NuTide:121 study sites (15 countries: ~130 sites)

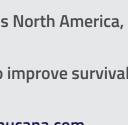


#### **SUMMARY**



- Global Phase III study at ~130 sites across North America, Europe and Asia-Pacific
- NUC-1031 + cisplatin has the potential to improve survival outcomes in patients with BTC
- Further study information: NuTide121@nucana.com





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