# Bolt Biotherapeutics

## BDC-1001 Overview

September 30, 2023

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This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this presentation, including statements regarding Bolt Biotherapeutics, Inc. (the "Company," "we," "us," or "our")'s future financial condition, ability to achieve upcoming milestones for our product candidates, the timing of our clinical trials, and the success and results of our pipeline programs and partnerships, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potentially" "predict," "should," "will" or the negative of these terms or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things: the success, cost and timing of our product development activities and clinical trials; our expectations about the timing of achieving regulatory approval and the cost of our development programs; our ability to obtain funding for our operations, including funding necessary to complete further development and commercialization of our product candidates; our ability to fund our clinical programs and the sufficiency of our cash, cash equivalents, and marketable securities to fund operations through 2025 and the achievement of key milestones; the commercialization of our product candidates, if approved; our plans to research, develop, and commercialize our product candidates; our ability to attract collaborators with development, regulatory and commercialization expertise; future agreements with third parties in connection with the commercialization of our product candidates; the success of our current collaborations with third parties, including our collaborations with Bristol-Myers Squibb Company, Roche, Innovent Biologics, Inc., Genmab A/S, and Toray Industries, Inc.; the achievement of milestone payments or any tiered royalties related to our collaborations; the size and growth potential of the markets for our product candidates, and our ability to serve those markets; the rate and degree of market acceptance of our product candidates; and regulatory developments in the United States and foreign countries. These risks are not exhaustive. For a detailed discussion of the risk factors that could affect our actual results, please refer to the risk factors identified in our SEC reports, including, but not limited to our Annual Report on Form 10-K for the year ended December 31, 2022. New risk factors emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward- looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation.

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# Bolt Bio: Dedicated to Generating Breakthroughs for Patients

## BDC-1001: Monotherapy Activity, Efficient Plan

Promising Phase 1 Results
- Monotherapy ORR[1] of 29% at RP2D of 20 mg/kg q2w
- Well tolerated

Phase 2 Program
- Option-based development
- 4 tumor types
- Upcoming data readouts

## Focused Pipeline, Proven Platform Technology

Pipeline
- BDC-1001 in Phase 2
- BDC-3042 in Phase 1

Collaborations validate Boltbody™ ISAC platform

Genmab

Innovent

TORAY

## Well-Capitalized, Significant Upside Potential

Nasdaq: BOLT
- 6 covering research analysts
- Consensus price target: $5.00[2]

$157M cash & equivalents[3]

Simple Corporate Structure
- 37.95 million shares of common stock oustanding[4]
- No debt
- No warrants

[1] Objective Response Rate in evaluable patients with HER2+ tumors
[2] $5.00 is consensus price target of 6 covering analysts as of 10/5/23
[3] $157.1 million cash & cash equivalents
[4] 37,950,986 shares outstanding as of 6/30/23

RP2D = Recommended Phase 2 Dose
q2w = every other week dosing schedule
ISAC = Immune-Stimulating Antibody Conjugate



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# BDC-1001: First-in-class Boltbody™ ISAC
## Phase 2 Program Targeting Select HER2+ Solid Tumors

### Achieved Clinical Proof-of-Concept in Phase 1

- Well tolerated at all doses tested
- Demonstrated clinical activity & proof of mechanism
- Novel mechanism could combine with other therapies

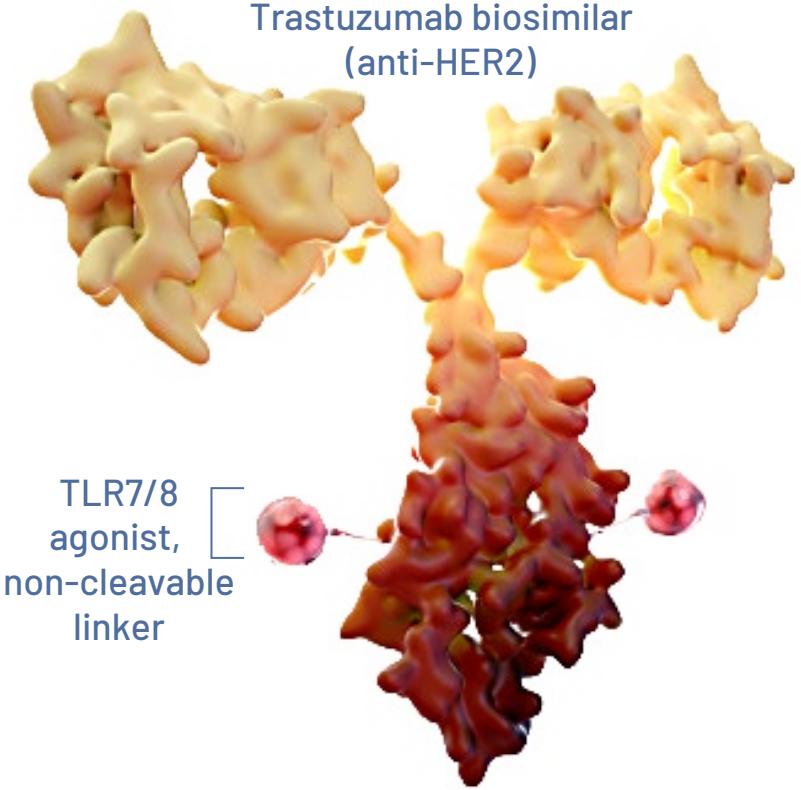
### Phase 2 Program Ongoing

- Prioritizing monotherapy
- Option-based approach to optimize risk/reward, with PD-1 combination therapy added in success scenarios
- Independent cohorts for four separate indications accounting for more than 160,000 patients per year in US + Top5 EU countries

### Clinical Supply Collaborations

- Bristol Myers Squibb supplying PD-1 checkpoint inhibitor nivolumab
- Roche supplying HER2-targeting antibody pertuzumab

**BDC-1001**



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# BDC-1001 Dose-Escalation Results
## Poster Presentation at the 2023 American Society for Clinical Oncology (ASCO) Annual Meeting

### Promising Clinical Efficacy at the recommended Phase 2 dose of 20 mg/kg q2w

- 29% ORR in evaluable patients with HER2+ tumors
  - 2/7 PRs in monotherapy
  - 2/7 PRs in combination with nivolumab
- Disease control rate (PR or SD lasting ≥ 24 weeks) :
  - 43% (3/7) in monotherapy
  - 57% (4/7) in combination with nivolumab

### Well tolerated as both monotherapy and in combination

- Most frequent drug-related AEs were grade 1 or 2 infusion-related reactions (29%)
- 9 (7%) grade 3 or higher treatment-related AEs
  - Only one was grade 4 and none were grade 5

### Plasma & tissue biomarkers support ISAC mechanism of action

- Increases in dendritic cells, macrophages, & CD8+ T cells
- Dose-dependent peak plasma increases for MIP-1β & IP-10



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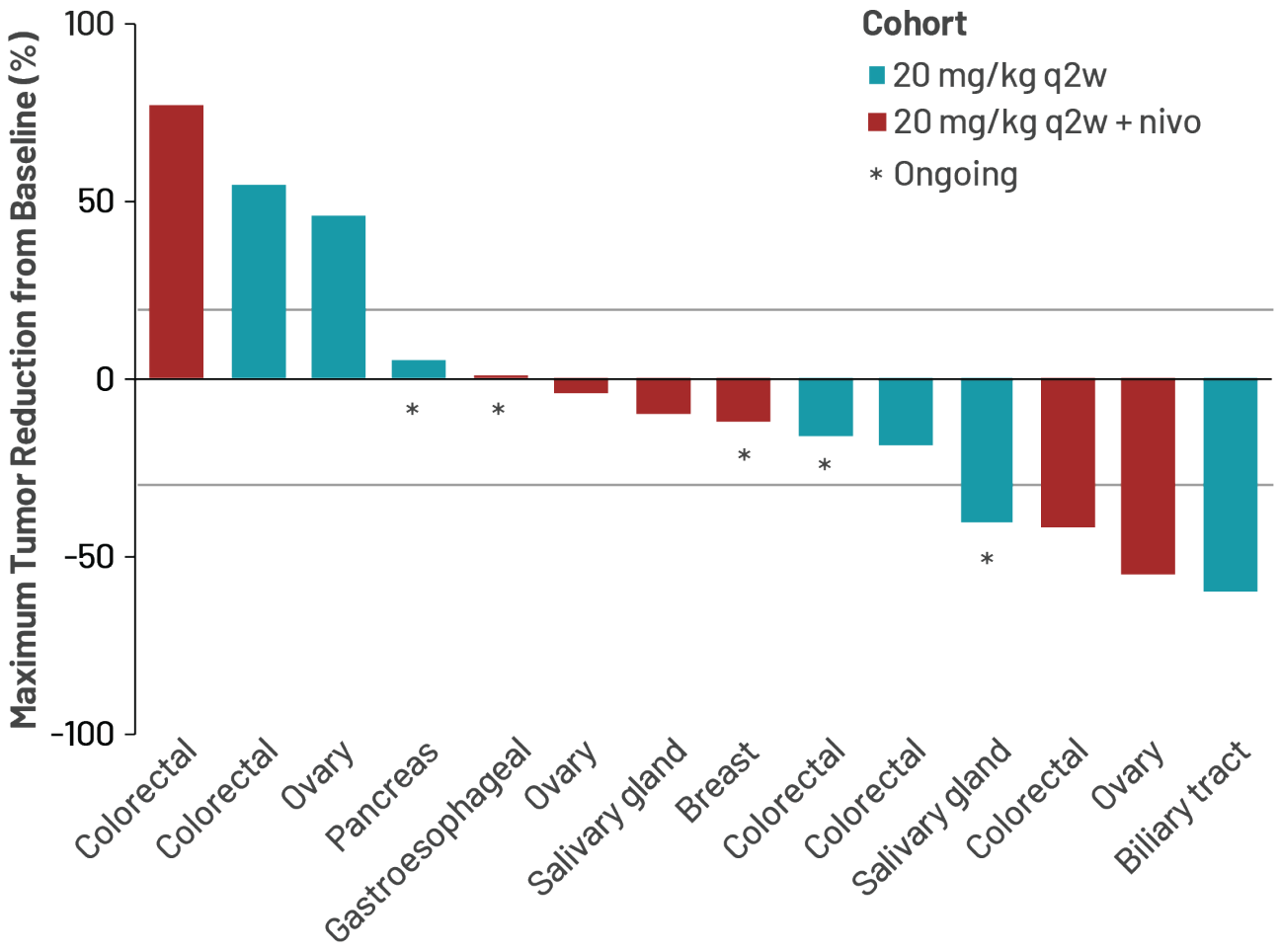
# Meaningful Anti-tumor Activity at 20 mg/kg q2w in Evaluable HER2+ Tumors

## BDC-1001 Monotherapy and Combination with Nivolumab




HER2+ either assessed by protein or gene analysis determined at enrollment
RECIST v1.1 assessment criteria

### Monotherapy (n=7)

- 29% achieved PR
- 43% had disease control ≥24w
- 57% achieved tumor shrinkage
  - Tumor types: colorectal, salivary gland, and biliary tract

### Combination with Nivolumab (n=7)

- 29% achieved PR
- 57% had disease control ≥24w
- 71% achieved tumor shrinkage
  - Tumor types: breast, colorectal, ovary, and salivary gland



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# BDC-1001 Phase 2 Clinical Program in Four HER2-Positive Tumor Types

## Phase 2 Dose Expansion

BDC-1001 monotherapy
Three distinct cohorts of HER2+ solid tumor types
Simon 2-stage design

| Colorectal | Endometrial | Gastroesophageal |
|---|---|---|

Additional cohorts in combination with PD-1 inhibitor nivolumab after demonstrating monotherapy activity

## Randomized Phase 2

BDC-1001 ± pertuzumab
Metastatic HER2+ breast cancer post-Enhertu®
Simon 2-stage design

| BDC-1001 | BDC-1001 + Pertuzumab |
|---|---|

## Clinical Supply Collaborations

- Bristol Myers Squibb supplying PD-1 checkpoint inhibitor nivolumab
- Roche supplying HER2-targeting antibody pertuzumab



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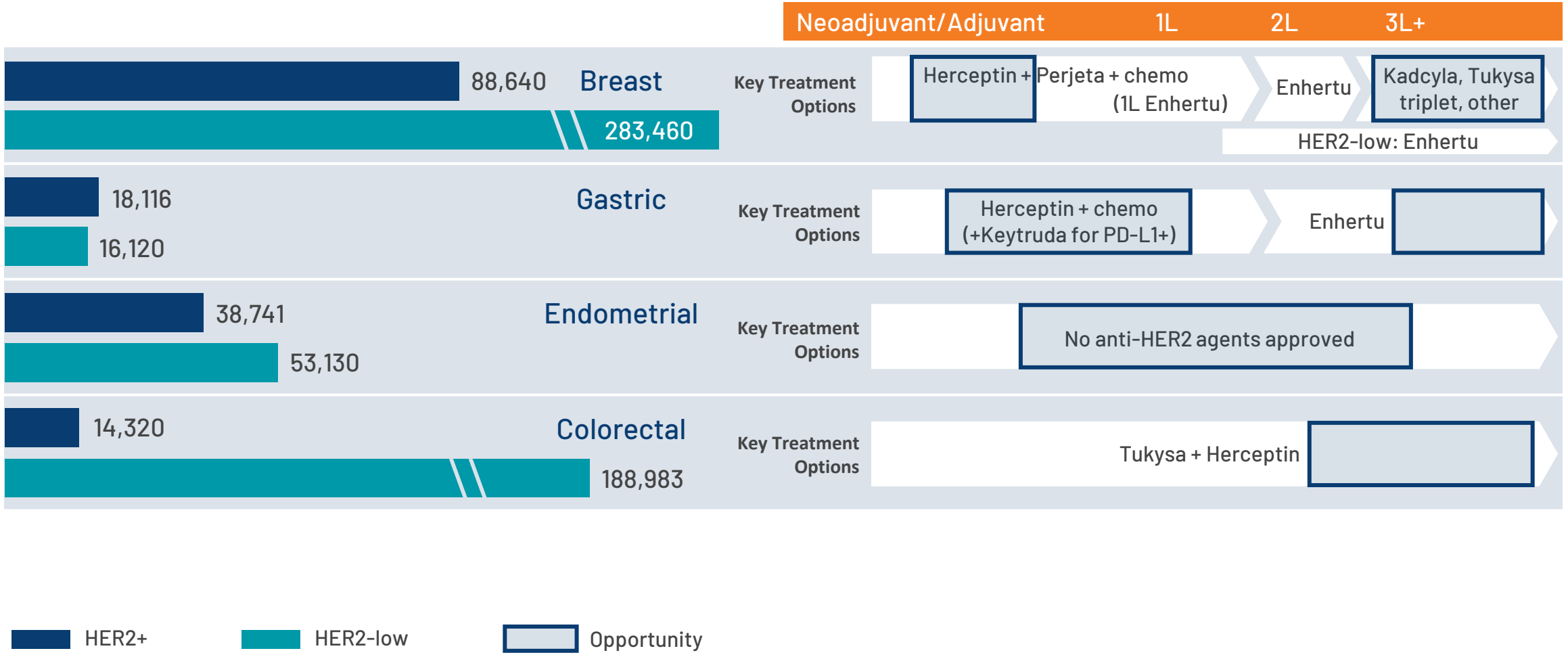
# BDC-1001 Opportunities in the Dynamic HER2 Therapeutic Market




US + Top 5 EU incidence numbers based upon 2022 SEER/American Cancer Society (US) & 2020 European Cancer Information System.
HER2 segmentation based upon various scientific publications with HER2-low being IHC2+ unamplified & IHC1+ unamplified.



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ASCO abstract # 2538

# A Phase 1/2 Study of a First-in-Human Immune-Stimulating Antibody Conjugate (ISAC) BDC-1001 in Patients with Advanced HER2-Expressing Solid Tumors (NCT04278144)

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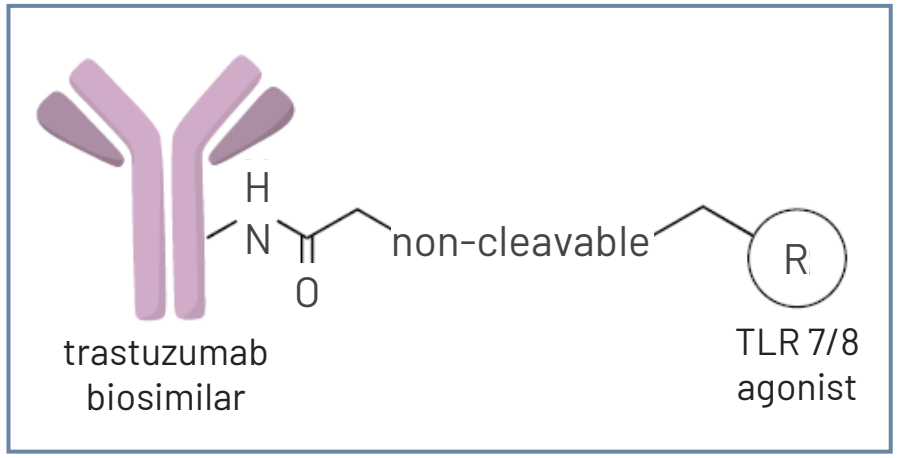
# BDC-1001: First-in-Class HER2-Targeting Boltbody™ ISAC

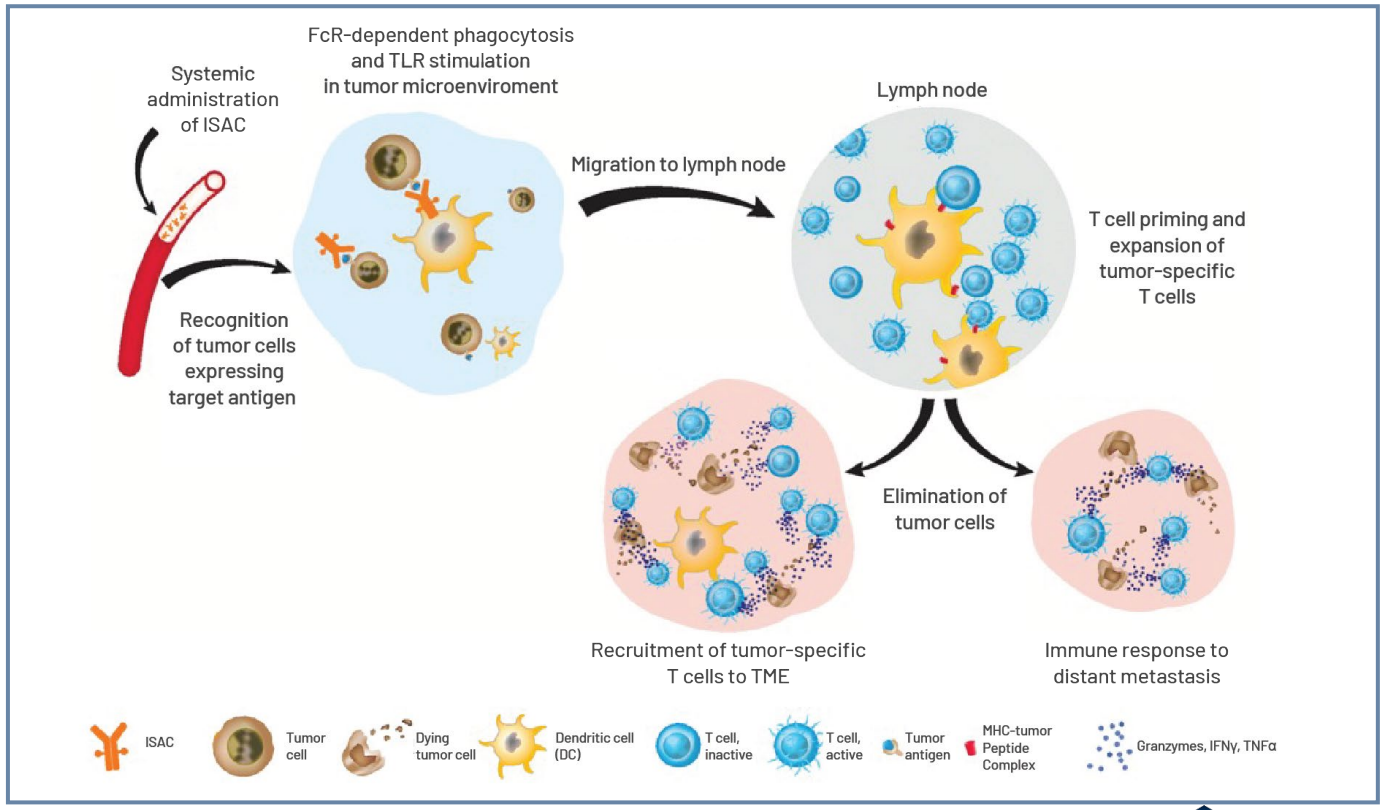
## Molecular Structure

- BDC-1001 consists of
  - Trastuzumab biosimilar
  - Payload: TLR7/8 agonist
  - Linker: non-cleavable
- BDC-1001 linker-payload is cell membrane-impermeable




## Proposed Mechanism of Action (MOA)

- Intravenous administration
- Local activation of the innate immune system
- Generates a durable tumor-targeted adaptive immune response





Ackerman SE, et al. *Nature Cancer*. 2021;2(1):18-33.
Li B, et al. ASCO 2023. Abstract 2538

# Eligibility & Objectives for Phase 1/2 Study (NCT04278144)
## Evaluating Single Agent BDC-1001 and BDC-1001 in Combination with Nivolumab

### Key Eligibility

- HER2-expressing solid tumors:
  - HER2 IHC3+ or gene amplified by ISH or NGS (HER2+)
  - HER2 IHC2+ and no gene amplification (HER2-low)
- Prior anti-HER2 and/or checkpoint inhibitor therapy allowed

### Primary Objectives

- Safety and tolerability; Recommended Phase 2 Dose (RP2D) selection

### Exploratory Objectives

- Pharmacokinetics, preliminary anti-tumor activity, plasma and tissue biomarkers to explore proof of mechanism



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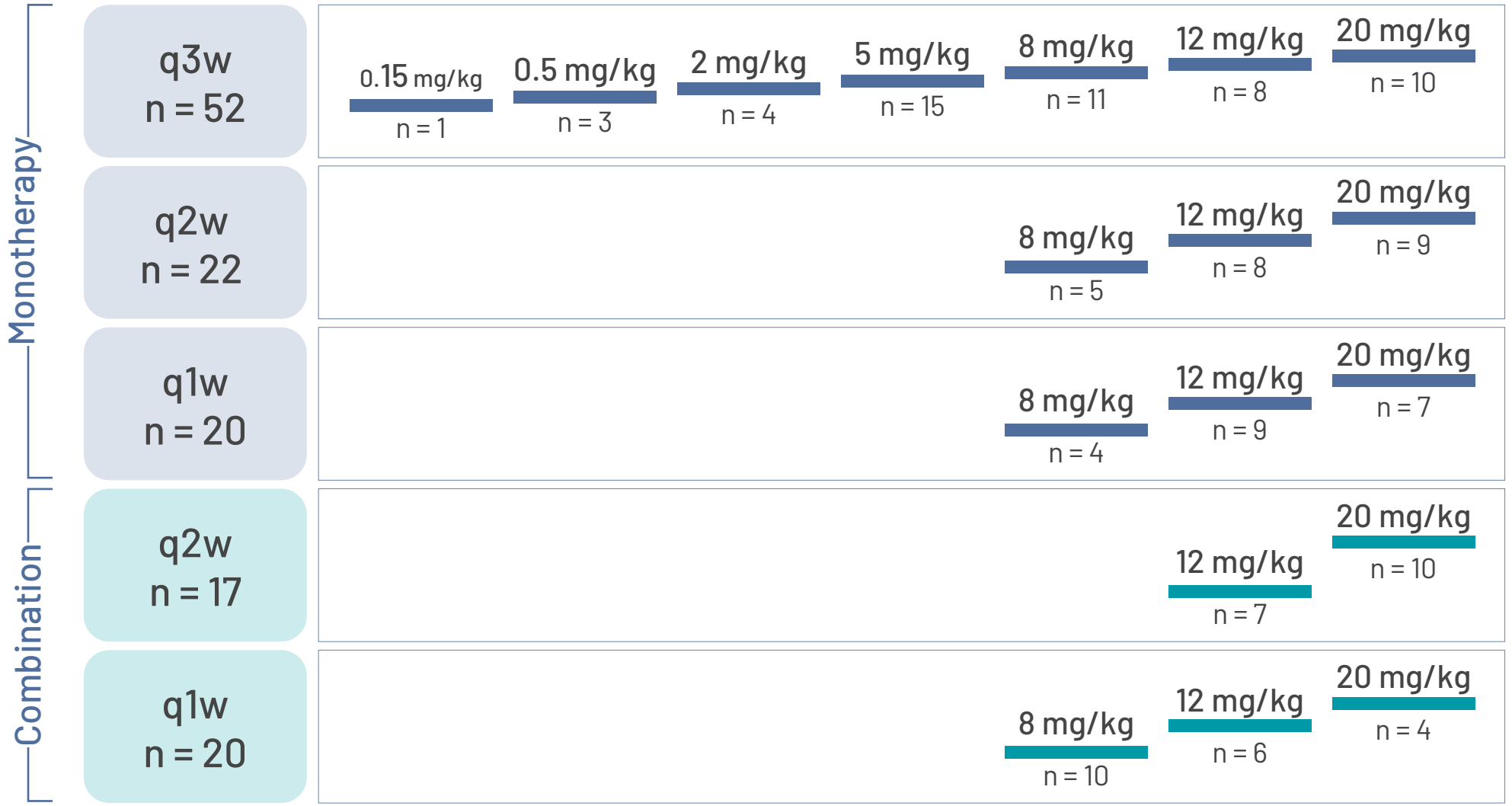
# Completed BDC-1001 Dose Escalation in HER2-Expressing Solid Tumors

## Monotherapy & Combination with PD-1 Inhibitor Nivolumab



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# Demographics and Baseline Characteristics

## Heterogenous and Heavily Pretreated Patient Population with 16 Different Tumor Types
## Majority of Patients Had HER2+ Tumors and Prior Anti-HER2 Therapy

| | BDC-1001 Monotherapy | | | | BDC-1001 + Nivolumab | | | All Patients |
|---|---|---|---|---|---|---|---|---|
| | q3w n = 52 | q2w n = 22 | q1w n = 20 | Total n = 94 | q2w n = 17 | q1w n = 20 | Total n = 37 | Total n = 131 |
| Median age, years (range) | 64.0 (30, 84) | 62.5 (42, 80) | 63.0 (33, 85) | 64.0 (30, 85) | 65,0 (34, 71) | 55.0 (31, 81) | 57.0 (31, 81) | 62.0 (30, 85) |
| Sex, n (%) | | | | | | | | |
| Female | 33 (63.5) | 12 (54.5) | 11 (55.0) | 56 (59.6) | 13 (76.5) | 14 (70.0) | 27 (73.0) | 83 (63.4) |
| Male | 19 (36.5) | 10 (45.5) | 9 (45.0) | 38 (40.4) | 4 (23.5) | 6 (30.0) | 10 (27.0) | 48 (36.6) |
| ECOG | | | | | | | | |
| 0 | 16 (30.8) | 5 (22.7) | 8 (40.0) | 29 (30.9) | 7 (41.2) | 10 (50.0) | 17 (45.9) | 46 (35.1) |
| 1 | 36 (69.2) | 17 (77.3) | 12 (60.0) | 65 (69.1) | 10 (58.8) | 10 (50.0) | 20 (54.1) | 85 (64.9) |
| Prior lines of systemic treatment, median (range) | 4 (0, 12) | 3 (1, 11) | 4 (1, 9) | 4 (0,12) | 5 (1, 10) | 5 (2, 13) | 5 (1,13) | 4 (0,13) |
| Prior anti-HER2 therapy, n (%) | 43 (82.7) | 8 (36.4) | 11 (55.0) | 62 (66.0) | 12 (70.6) | 16 (80.0) | 28 (75.7) | 90 (68.7) |
| Prior checkpoint inhibitor therapy, n (%) | 16 (30.8) | 5 (22.7) | 8 (40.0) | 29 (30.9) | 4 (23.5) | 5 (25.0) | 9 (24.3) | 38 (29.0) |
| HER2 categories from screening, n (%) | | | | | | | | |
| HER2+ (IHC3+ or gene amplification) | 51 (98.1) | 18 (81.8) | 16 (80.0) | 85 (90.4) | 15 (88.2) | 18 (90.0) | 33 (89.2) | 118 (90.1) |
| HER2 low (IHC2+ and no gene amplification) | 1 (1.9) | 4 (18.2) | 4 (20.0) | 9 (9.6) | 2 (11.8) | 2 (10.0) | 4 (10.8) | 13 (9.9) |
| Tumor types, n (%) | | | | | | | | |
| Colorectal | 10 (19.2) | 10 (45.5) | 4 (20.0) | 24 (25.5) | 3 (17.6) | 7 (35.0) | 10 (27.0) | 34 (26.0) |
| Gastroesophageal | 16 (30.8) | 4 (18.2) | 4 (20.0) | 24 (25.5) | 2 (11.8) | 2 (10.0) | 4 (10.8) | 28 (21.4) |
| Breast | 9 (17.3) | 1 (4.5) | 5 (25.0) | 15 (16.0) | 2 (11.8) | 8 (40.0) | 10 (27.0) | 25 (19.1) |
| Endometrial | 6 (11.5) | 0 (0.0) | 1 (5.0) | 7 (7.4) | 2 (11.8) | 1 (5.0) | 3 (8.1) | 10 (7.6) |
| Others* | 11 (21.2) | 7 (31.8) | 6 (30.0) | 24 (25.5) | 8 (47.0) | 2 (10.0) | 10 (27.0) | 34 (26.0) |

*Other tumor types include (monotherapy and combination combined): n=6 ovary, n=5 salivary gland, n=4 cervix, n=4 lung, n=4 pancreatic, n=2 biliary tract, n=2 skin, n=2 small intestine, and one each of head and neck, intestinal ampulla, liver, prostate, and urinary bladder.

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# Safety:
## BDC-1001 was Well Tolerated Up to 20 mg/kg q1w Monotherapy and in Combination with Nivolumab

- **BDC-1001 has a wide therapeutic window, up to 20 mg/kg q1w with maximum-tolerated dose (MTD) not reached**
  - One DLT of supraventricular tachycardia (grade 3) at 8 mg/kg BDC-1001 q1w in combination with nivolumab
  - One grade 4 and no grade 5 drug-related AEs
- **Most frequent (29.0%) drug-related AEs were low grade (grade 1 and grade 2) infusion-related reactions (IRRs)**
- **One drug-related cytokine release syndrome (grade 1) at 12 mg/kg BDC-1001 q1w**
- **Left ventricular ejection fraction (LVEF) decrease**
  - 6 patients with ejection fraction decrease (grade 2 [n=4], grade 3 [n=2])
    - 4 received BDC-1001 q1w
      – Monotherapy: 1 patient at 12 mg/kg, 2 at 20 mg/kg; combination: 1 at 8 mg/kg + nivolumab
    - 2 received BDC-1001 q3w or q2w
      – Monotherapy: 1 patient at 5 mg/kg q3w and 1 at 8 mg/kg q2w
- **2 patients discontinued therapy due to LVEF decrease**
  - 5 mg/kg BDC-1001 q3w, 8 mg/kg BDC-1001 q2w

Safety graded by CTCAE v5; AE, adverse event; DLT, dose limiting toxicity



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# BDC-1001 was Well Tolerated
## As Monotherapy and in Combination with Nivolumab

### Summary of Treatment-related TEAEs

| | BDC-1001 Monotherapy | | | | BDC-1001 + Nivolumab | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Treatment-related TEAEs | | | | BDC-1001 Treatment-related TEAEs | | | BDC-1001 + Nivolumab Treatment-related TEAEs | | |
| | q3w n = 52 | q2w n = 22 | q1w n = 20 | Total n = 94 | q2w n = 17 | q1w n = 20 | Total n = 37 | q2w n = 17 | q1w n = 20 | Total n = 37 |
| All grades (%) | 30 (57.7) | 11 (50.0) | 17 (85.0) | 58 (61.7) | 11 (64.7) | 14 (70.0) | 25 (67.6) | 5 (29.4) | 12 (60.0) | 17 (45.9) |
| Grade ≥3 (%) | 5 (9.6) | 1 (4.5) | 1 (5.0) | 7 (7.4) | 0 | 2 (10.0) | 2 (5.4) | 0 | 1 (5.0) | 1 (2.7) |
| Serious adverse events (%) | 3 (5.8) | 0 | 0 | 3 (3.2) | 1 (5.9) | 1 (5.0) | 2 (5.4) | 0 | 1 (5.0) | 1 (2.7) |
| Leading to treatment discontinuation | 3 (5.8) | 1 (4.5) | 0 | 4 (4.3) | 0 | 1 (5.0) | 1 (2.7) | 0 | 1 (5.0) | 1 (2.7) |
| Leading to treatment interruption | 5 (9.6) | 2 (9.1) | 2 (10.0) | 9 (9.6) | 1 (5.9) | 1 (5.0) | 2 (5.4) | 0 | 1 (5.0) | 1 (2.7) |
| Leading to death | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Data cut-off: March 24, 2023

Safety graded by CTCAE v5; TEAE, treatment-emergent adverse event
Definition of treatment-related TEAEs = an AE considered as related to with unknown/missing relationship to study drug
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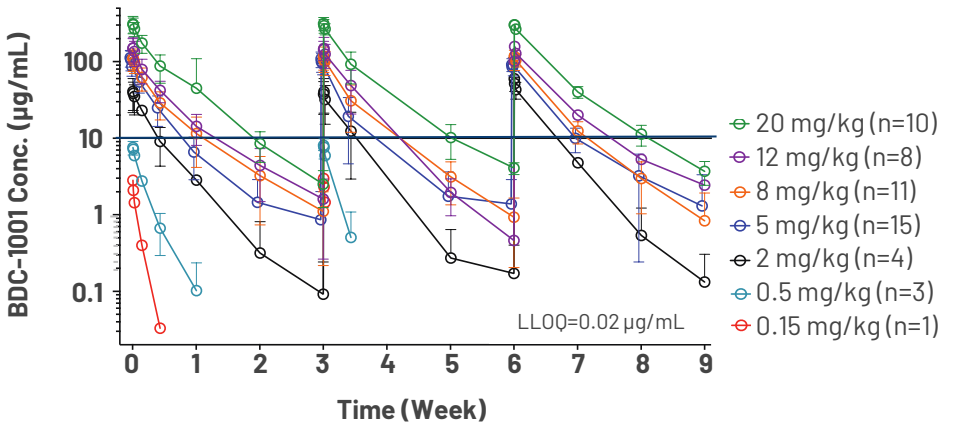
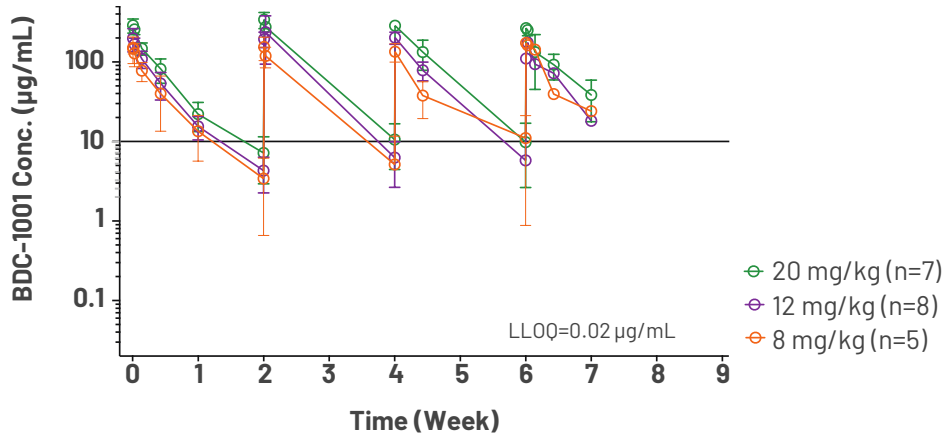
# BDC-1001 Pharmacokinetics:
## Serum Target Exposure > 10µg/mL Achieved at RP2D of 20 mg/kg q2w

- Population mean clearance 1.6 L/day & terminal $T_{1/2}$ of 4.3 days
  - Faster clearance at dose levels lower than 5 mg/kg exhibits TMDD (target-mediated drug disposition)
- 2-fold accumulation observed in median $C_{min}$ with q2w & q1w dosing
  - At 20 mg/kg q2w, $C_{min}$ increase from first dose to steady state: ~ 12 to 29 µg/mL
  - At 20 mg/kg q1w, $C_{min}$ increase from first dose to steady state: ~ 34 to 68 µg/mL
  - Virtually no accumulation was observed with q3w dosing
- Presence of nivolumab did not impact PK of BDC-1001
- Low incidence of BDC-1001 ADA formation (4.2%) with no impact on PK, safety, or efficacy

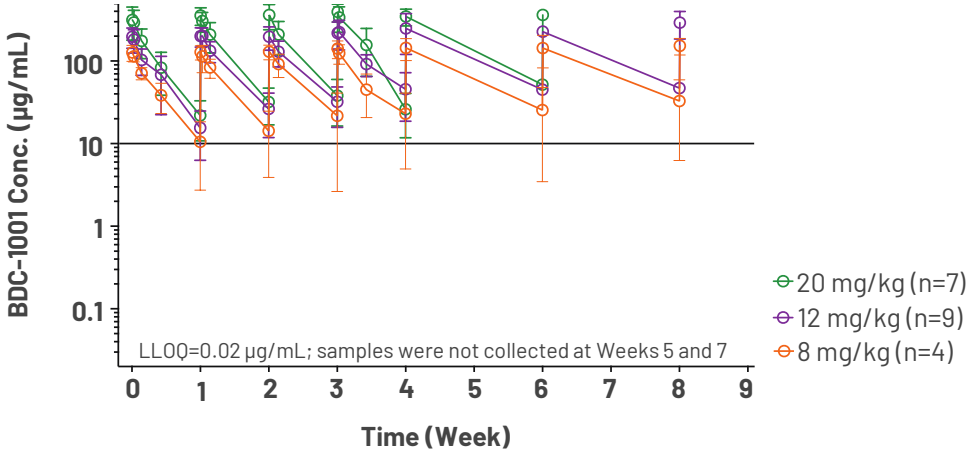
BDC-1001 q3w Cohort Mean (SD)




BDC-1001 q2w Cohort Mean (SD)




BDC-1001 q1w Cohort Mean (SD)




ADA, anti-drug antibody; SD, standard deviation
Note: q1w samples were not collected at Weeks 5 and 7
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# Efficacy:
## Most Clinically Meaningful Efficacy Observed at 20 mg/kg q2w (RP2D)

- Six patients had PRs
  - 3 colorectal, 1 ovarian, 1 biliary, 1 salivary
  - 4 at 20 mg/kg q2w (2 mono, 2 combo)
    - 3 were MSS (mono or combo) and 1 was MSI (mono)
  - 1 at 12 mg/kg q1w (combo) in MSS tumor
  - 1 at 5 mg/kg q3w (mono) in MSS tumor
- Twelve patients had SD ≥ 24 weeks
  - 4 colorectal, 1 melanoma, 1 endometrial, 2 gastric, 1 salivary gland, 2 cervical, 1 ovarian
  - 3 of 12 at 20 mg/kg q2w with colorectal, salivary gland, and ovarian cancer
- Tumor shrinkage observed in a variety of tumor types including biliary, breast, cervical, colorectal, endometrial, gastric, lung, salivary, skin (melanoma), and ovarian cancer



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# Clinical Efficacy in All Patients with HER2+ Tumors Treated with 20 mg/kg q2w (RP2D)

## BDC-1001 Monotherapy or in Combination with Nivolumab

| | BDC-1001 20 mg/kg (n = 7) 4 Tumor Types | BDC-1001 20 mg/kg + Nivolumab (n = 8)** 5 Tumor Types | All (n = 15) 7 Tumor Types |
|---|---|---|---|
| Response assessment, n (%) | | | |
| PR | 2* (29%) | 2 (25%) | 4 (27%) |
| SD | 3 (43%) | 4 (50%) | 7 (47%) |
| PD | 2 (29%) | 1 (13%) | 3 (20%) |
| Not evaluable | 0 | 1 (13%) | 1 (7%) |
| Overall response rate, n (%) | 2 (29%) | 2 (25%) | 4 (27%) |
| Disease control rate ≥ 6 weeks, n (%) | 5 (71%) | 6 (75%) | 11 (73%) |
| Disease control rate ≥ 24 weeks, n (%) | 3 (43%) | 4 (50%) | 7 (47%) |
| Tumor shrinkage, n (%) | 4 (57%) | 5 (63%) | 9 (60%) |

*One PR confirmed post March 24, 2023 data cutoff; **One non-evaluable patient included.
4 HER2-low tumors (2 each from BDC-1001 monotherapy and in combination) are excluded.

Data cut-off: March 24, 2023



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# Clinical Efficacy in All Patients with HER2+ Tumors was Greater with 20 mg/kg Compared to 12 mg/kg q2w

## Data Fairly Comparable for BDC-1001 Monotherapy or in Combination with Nivolumab

| | BDC-1001 | | BDC-1001 + Nivolumab | |
|---|---|---|---|---|
| | 12 mg/kg (n = 7) 5 Tumor Types | 20 mg/kg (n = 7) 4 Tumor Types | BDC-1001 12 mg/kg (n = 7) 6 Tumor Types | BDC-1001 20 mg/kg (n = 8)** 5 Tumor Types |
| Response assessment, n (%) | | | | |
| PR | 0 | 2* (29%) | 0 | 2 (25%) |
| SD | 1 (14%) | 3 (43%) | 2 (29%) | 4 (50%) |
| PD | 4 (57%) | 2 (29%) | 4 (57%) | 1 (13%) |
| Not evaluable | 2 (29%) | 0 | 1 (14%) | 1 (13%) |
| Overall response rate, n (%) | 0 | 2 (29%) | 0 | 2 (25%) |
| Disease control rate ≥ 6 weeks, n (%) | 1 (14%) | 5 (71%) | 2 (29%) | 6 (75%) |
| Disease control rate ≥ 24 weeks, n (%) | 1 (14%) | 3 (43%) | 0 | 4 (50%) |
| Tumor shrinkage, n (%) | 1 (14%) | 4 (57%) | 2 (29%) | 5 (63%) |

* One PR confirmed post March 24, 2023 data cutoff; **One non-evaluable patient included

5 HER2-low tumors are excluded (1 at 12 mg/kg and 4 at 20 mg/kg)

Data cut-off: March 24, 2023



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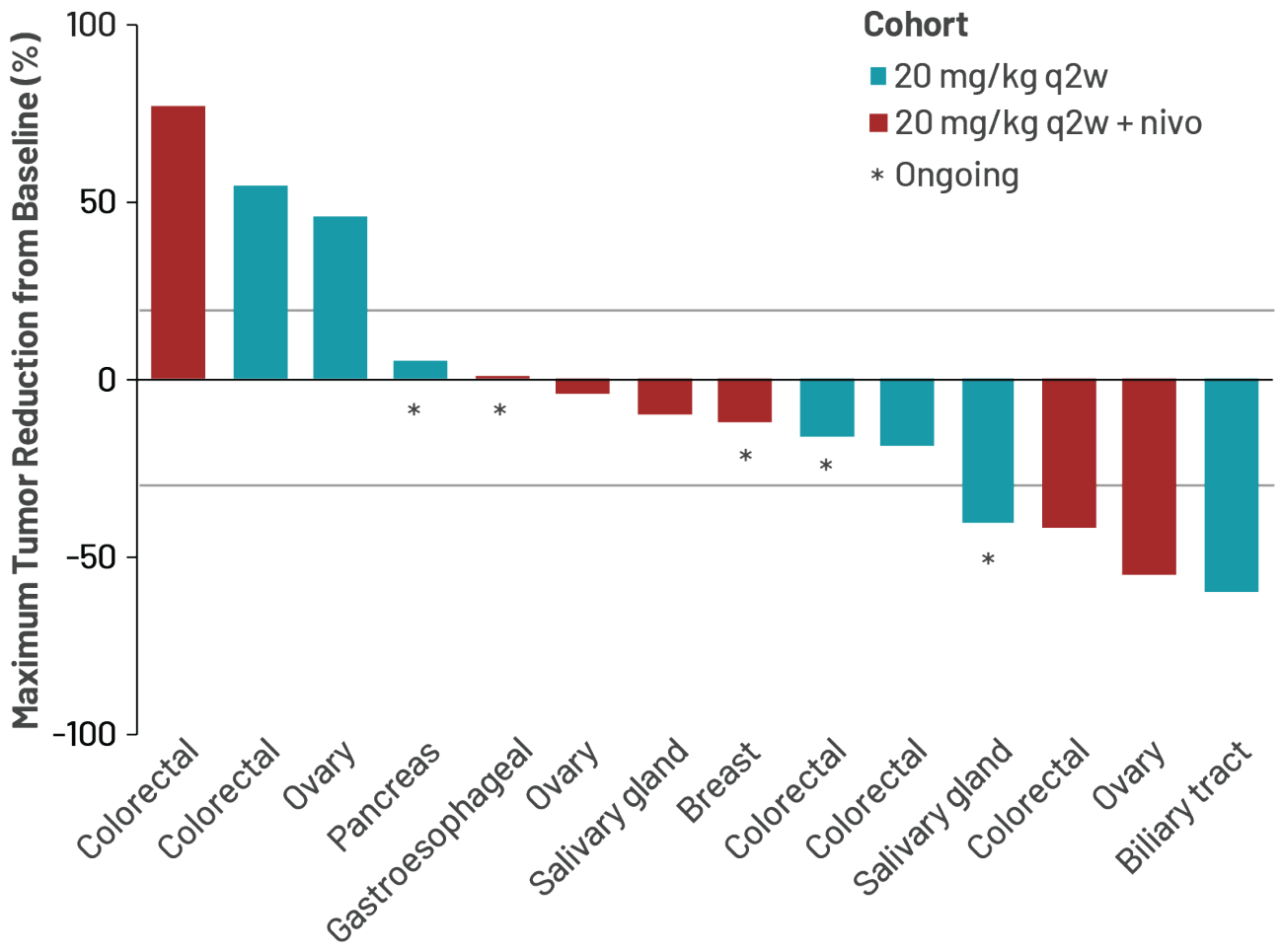
# Meaningful Anti-tumor Activity at 20 mg/kg q2w in Evaluable HER2+ Tumors

## BDC-1001 Monotherapy and Combination with Nivolumab




HER2+ either assessed by protein or gene analysis determined at enrollment
RECIST v1.1 assessment criteria

### Monotherapy (n=7)

- 29% achieved PR
- 43% had disease control ≥24w
- 57% achieved tumor shrinkage
  - Tumor types: colorectal, salivary gland, and biliary tract

### Combination with Nivolumab (n=7)

- 29% achieved PR
- 57% had disease control ≥24w
- 71% achieved tumor shrinkage
  - Tumor types: breast, colorectal, ovary, and salivary gland



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# BDC-1001 Clinical Activity: 6 PRs and 12 Long-lasting SDs (≥ 24 Weeks)

## Observed in 8 Tumor Types, Particularly in 20 mg/kg q2w Dose Cohorts

| Best Response | Site of Primary Tumor, HER2 Status | Duration of Disease Control (PR or SD) in Wks | Prior Lines of Therapy | Prior Anti-HER2 Therapy | Prior Checkpoint Inhibitor | MSS/MSI | Dose Cohort |
|---|---|---|---|---|---|---|---|
| Partial Response | Colorectal, HER2+ | 84 | 4 | No | Yes | MSS | 5 mg/kg q3w |
| | **Biliary tract cancer, HER2+** | **36** | **2** | **No** | **No** | **MSS** | **20 mg/kg q2w** |
| | **Salivary gland, HER2+** | **48+** | **2** | **No** | **No** | **MSI** | **20 mg/kg q2w** |
| | **Ovarian cancer, HER2+** | **24** | **12** | **Yes** | **No** | **MSS** | **20 mg/kg q2w + nivolumab** |
| | **Colorectal cancer, HER2+** | **48** | **5** | **Yes** | **No** | **MSS** | **20 mg/kg q2w + nivolumab** |
| | Colorectal cancer, HER2+ | 12+ | 5 | Yes | No | MSS | 12 mg/kg q1w + nivolumab |
| Long lasting Stable Disease | Endometrial cancer, HER2+ | 36 | 3 | Yes | No | No data | 2 mg q3w |
| | Cervical cancer, HER2+ | 60 | 3 | Yes | No | No data | 5 mg/kg q3w |
| | Melanoma, HER2+ | 24 | 1 | No | Yes | MSS | 8 mg/kg q3w |
| | Colorectal, HER2+ | 36 | 11 | Yes | No | MSS | 20 mg/kg q3w |
| | Colorectal, HER2+ | 24+ | 2 | No | No | MSS | 8 mg/kg q2w |
| | Gastric cancer, HER2+ | 48+ | 2 | Yes | No | No data | 12 mg/kg q2w |
| | **Colorectal, HER2+** | **60+** | **2** | **No** | **No** | **MSI** | **20 mg/kg q2w** |
| | **Salivary gland cancer, HER2+** | **24** | **8** | **Yes** | **Yes** | **MSS** | **20 mg/kg q2w + nivolumab** |
| | **Ovarian cancer, HER2+** | **36** | **4** | **Yes** | **No** | **MSI** | **20 mg/kg q2w + nivolumab** |
| | Colorectal. HER2+ | 36 | 1 | No | No | MSS | 8 mg/kg q1w |
| | Cervical cancer, HER2+ | 24 | 5 | Yes | Yes | MSS | 12 mg/kg q1w |
| | Gastric cancer, HER2+ | 24 | 2 | Yes | No | No data | 12 mg/kg q1w |

**Bold**: patients treated at RP2D

Data cut-off: March 24, 2023



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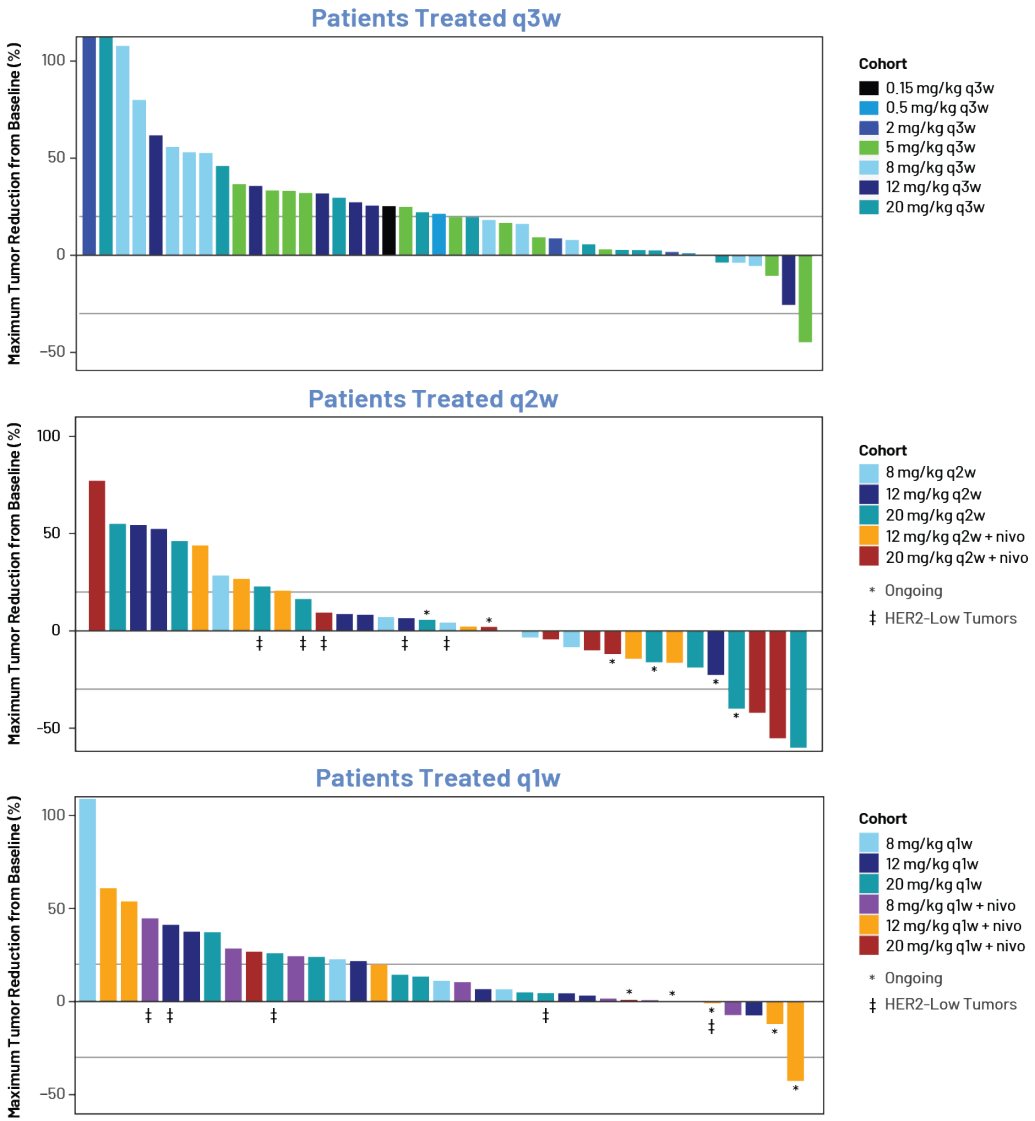
# 20 mg/kg q2w a Clear Choice for BDC-1001 RP2D

## Frequency of Dosing and Exposure Both Appear to be Important

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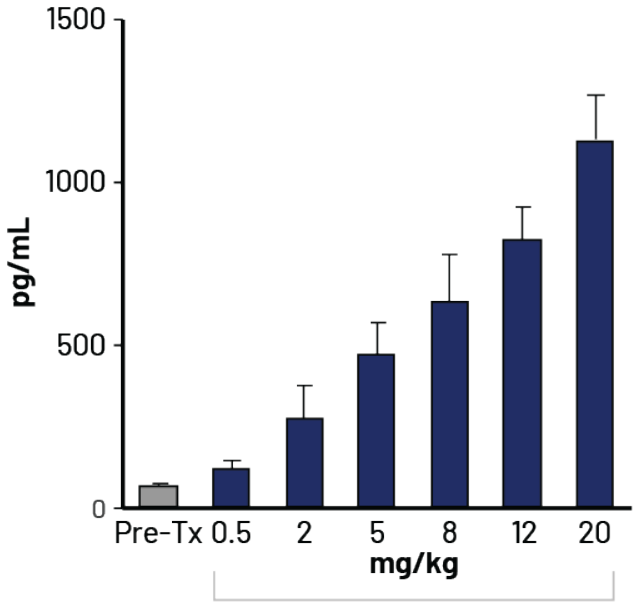
# Increases in Plasma Myeloid Activation Markers Confirm MOA and Safety

## Peak Increases Seen at 4 Hours

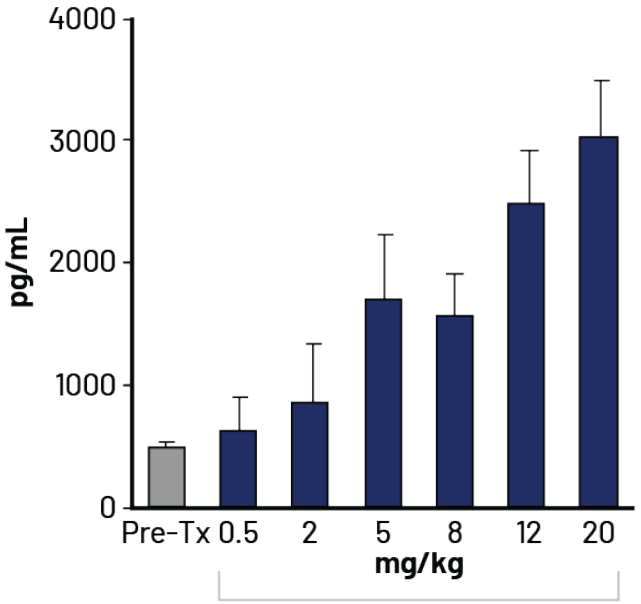
- Plasma samples for cytokines and chemokines obtained from all patients
- Dose-dependent peak increases in Cycle 1 were observed in multiple cytokines and chemokines*
  - Similar responses observed for MIP-1α, IFNγ, TNFα and eotaxin

Average IL-6 levels, a marker of inflammation, were low at all doses (< 50 pg/mL)

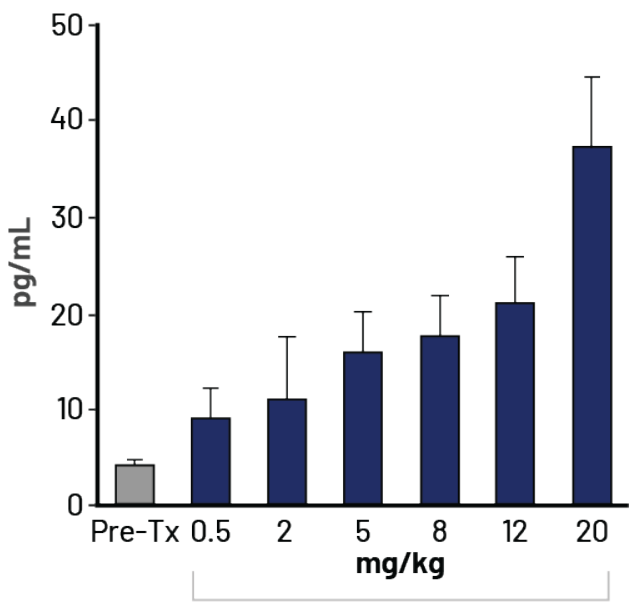
MIP-1β




IP-10




IL-6

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*Representative graphs are shown

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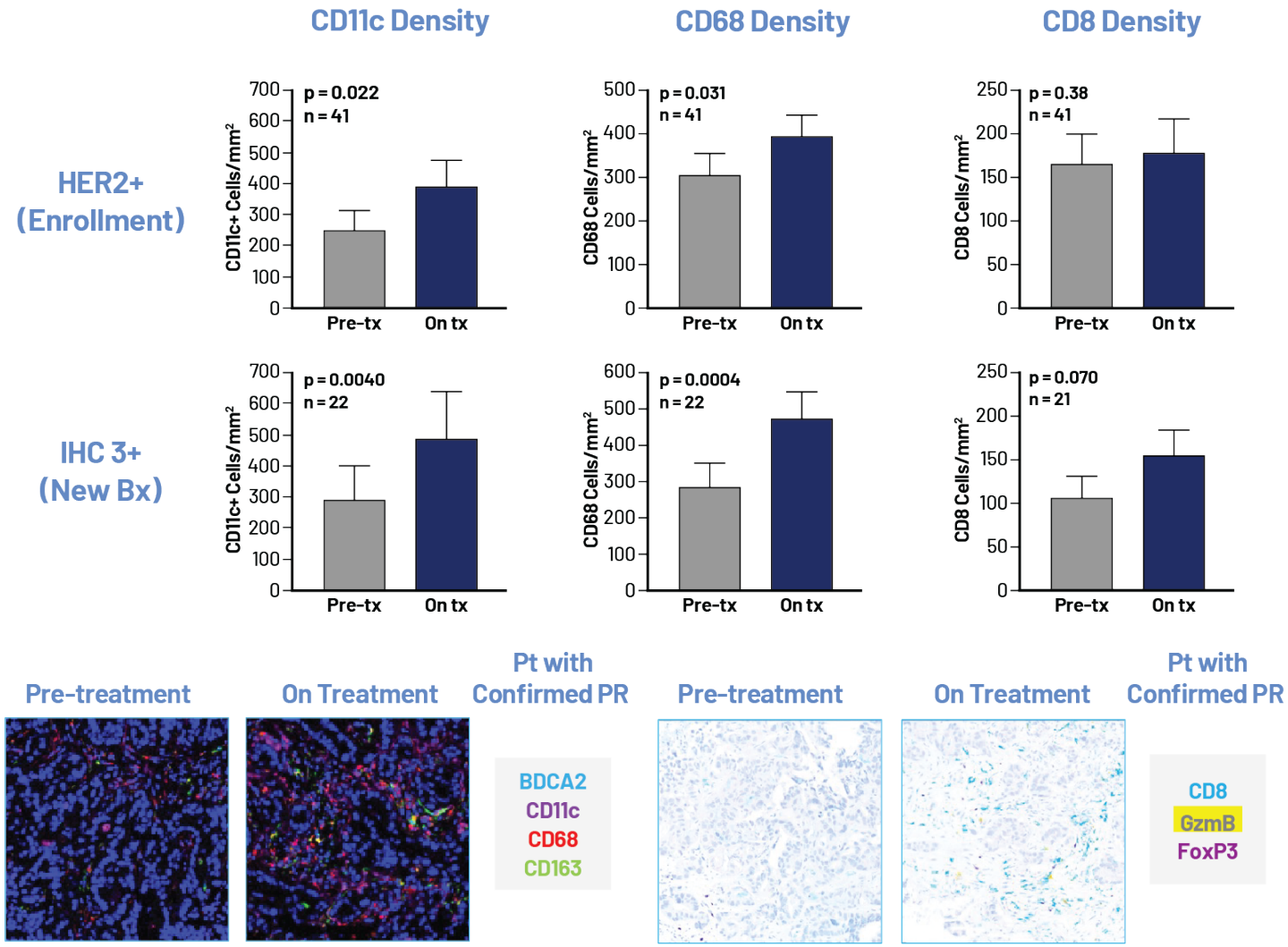
# BDC-1001 Drives Myeloid and T Cell Infiltration in HER2+ Tumors
## Data from Paired Fresh Tumor Biopsies

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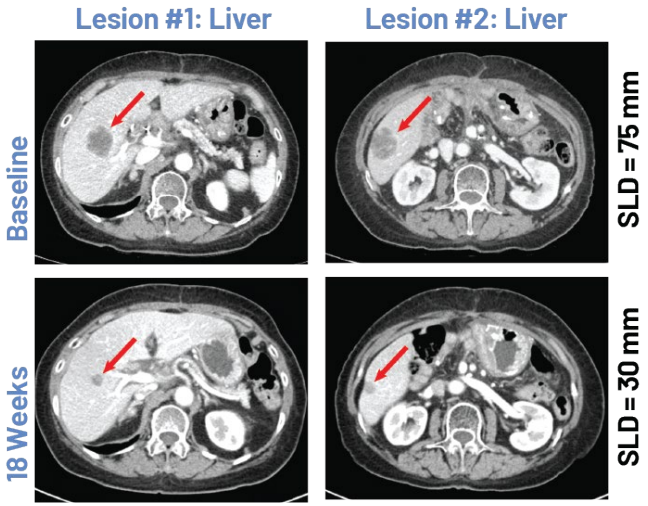
# Biomarker Data Supports MOA with Increases in Myeloid and T Cells

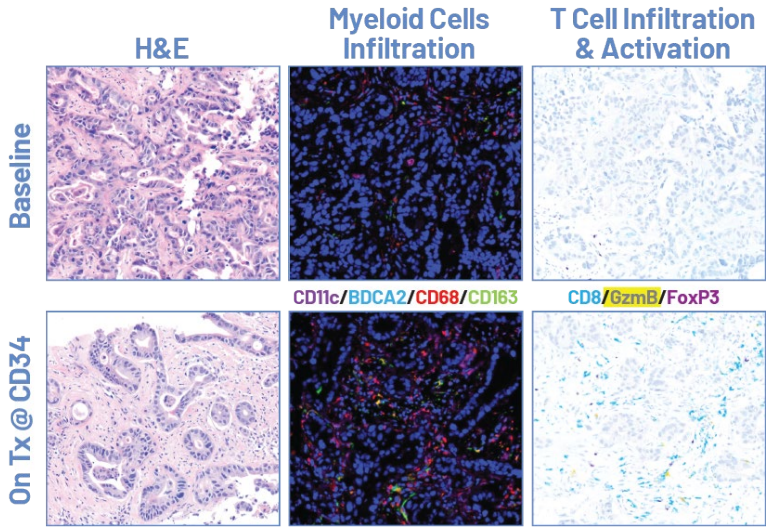
## CT Imaging & Fresh Matched Biopsies in Patient with PR

Patient with HER2+ by NGS, MSS biliary tract carcinoma

- No prior anti-HER2 or immunotherapy




Fresh matched (pre- and on-Tx) biomarker data




Maximum tumor reduction of target lesions was 60%

**Key observations:**

- cDC (CD11c) increased by 16% and pDC (BDCA2) decreased by 70%
- 62% increase in M1 (CD68+CD163-) macrophage, 161% increased in monocyte-derived DCs (CD11c+CD163+), and 16% increase in cDC (CD11c+CD163-)
- 500% increase in CD8+ T cell infiltration and 400% increase in CD8+Granzyme B+ T cell activation

Data cut-off: March 24, 2023

CT= Computerized tomography; SLD=Sum of Longest Diameter



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# Conclusions

## Results demonstrate encouraging evidence of safety, anti-tumor efficacy, and biomarker changes consistent with MoA of ISAC technology

- BDC-1001 was well-tolerated at all doses and dosing frequencies up to 20 mg/kg q1w
  - In a heterogeneous (16 different tumor types in 18 cohorts) and heavily pretreated (median 4 prior lines of systemic treatment) patient population
- Target exposure established in preclinical models achieved at higher dose and increased frequency of administration
  - $C_{min}$ above 10 µg/mL achieved at q2w and q1w schedules
  - Improved efficacy observed with q2w compared to q3w or q1w
- Clinical activity of BDC-1001 observed alone and in combination with nivolumab, particularly in 20 mg/kg q2w cohorts
- Pharmacodynamic responses in both plasma and tissue consistent with ISAC MOA
  - Responses of myeloid and T cell activation and infiltration not anticipated with trastuzumab treatment alone
- Selection of 20 mg/kg q2w as RP2D based on the totality of safety, efficacy, PK, and biomarkers
- Results support Phase 2 development of BDC-1001 as a single agent and in combination strategies



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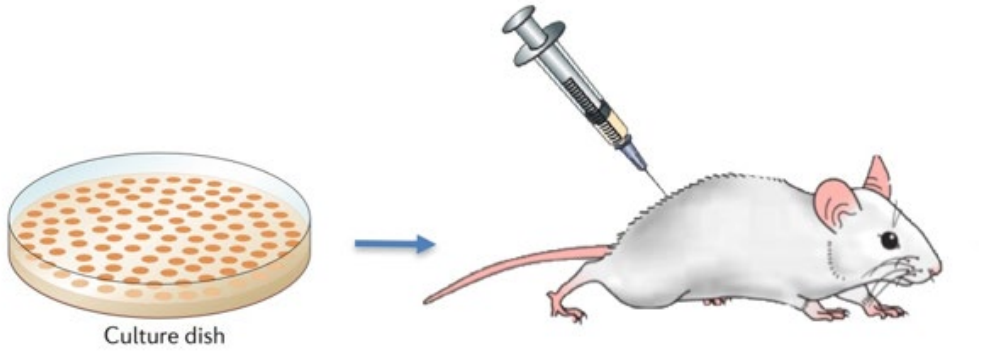
# BDC-1001 Preclinical Support

# ISACs Deliver Powerful Synergies
## Covalent Attachment of TLR7/8 Agonist Dramatically Improves Anti-tumor Efficacy

### HCC1954 Tumor Xenograft Model



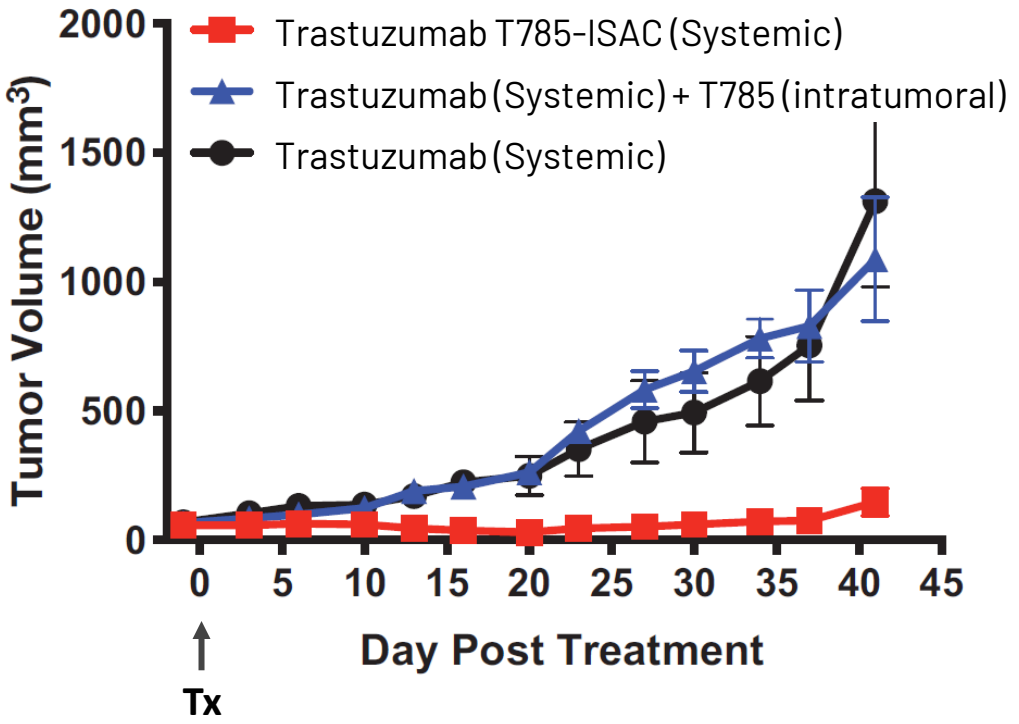

HUMAN HCC1954 TUMOR CELL LINE

SUBCUTANEOUS INJECTION OF CULTURED CELLS

- SCID/Beige lack T, B and functional NK cells, but retain a myeloid compartment
- Enables assessment of myeloid-mediated anti-tumor activity

Adapted from Creative Biolabs

### Single ISAC Dose Mediates Tumor Regression






Ackerman SE, et al. *Nature Cancer*. 2021.

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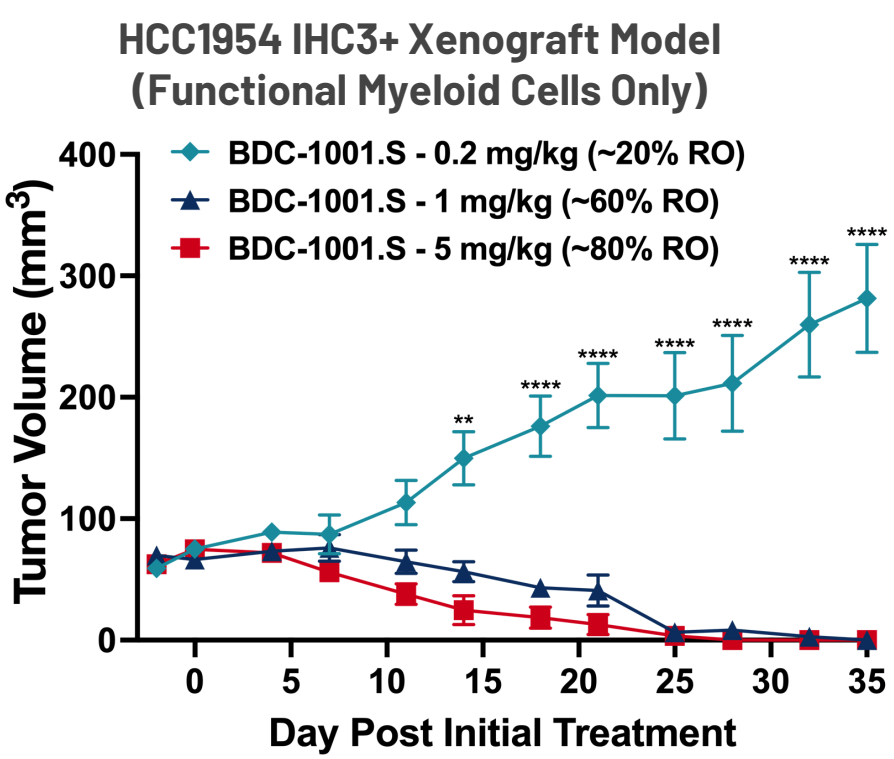
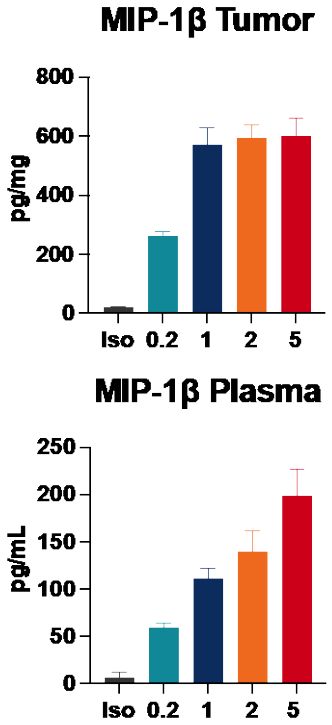
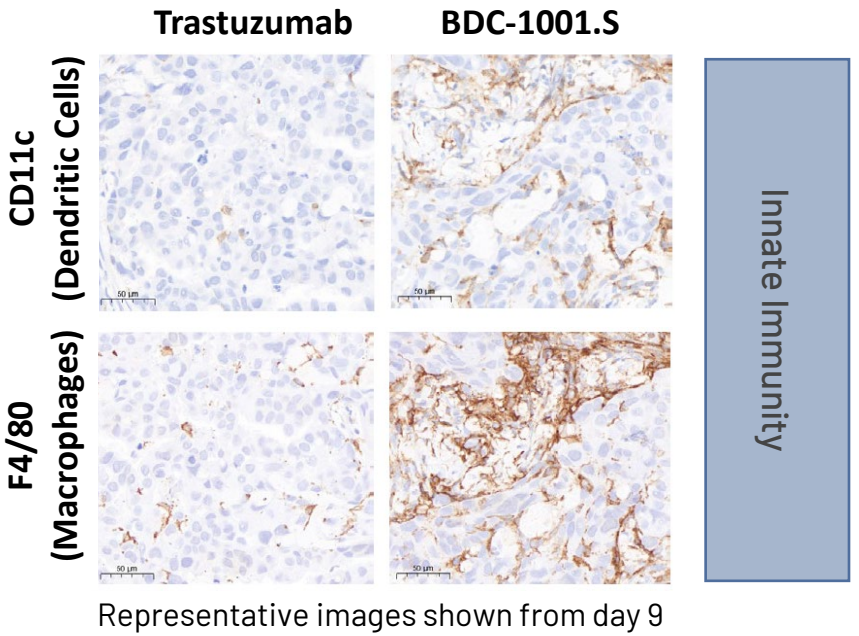
# BDC-1001 Exposure Hypothesis Emerged from Preclinical Data

## Targeting >10 µg/mL Trough Serum Concentration for Anti-tumor Activity




Representative images shown from day 9

- Increases in proinflammatory cytokines & chemokines seen prior to tumor regression
- Levels of proinflammatory cytokines & chemokines in tumor much higher than serum
- Recruitment of dendritic cells & macrophages to tumor not seen with trastuzumab
- Anti-tumor activity requires sufficient target receptor occupancy, corresponding to a Cmin of >10 µg/mL

SCID/Beige mice were dosed with BDC-1001 surrogate (BDC-1001.S) every 5 days through day 25 with cytokines and myeloid infiltration measured 24 hours or 9 days following the first dose, respectively. Representative figures are from independent experiments.



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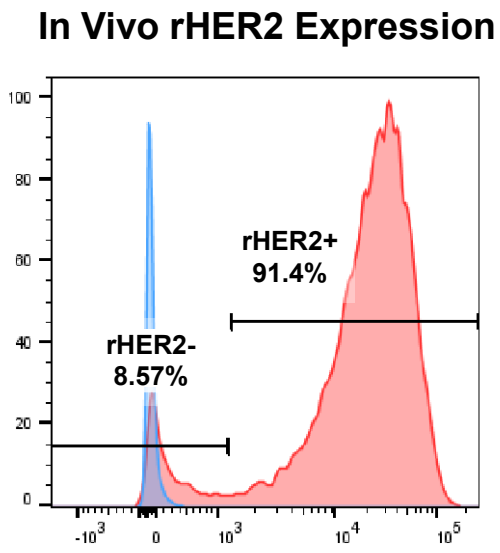
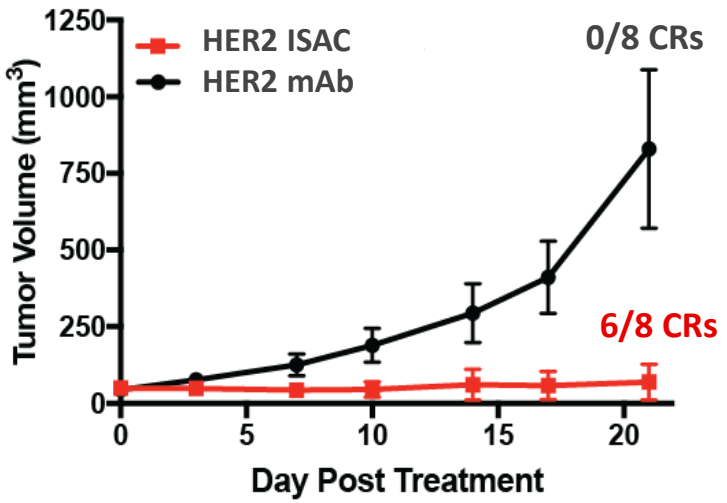
# Boltbody™ ISAC Induces Immune Memory that Extends to Tumors Lacking HER2

## Immunity Extends to Tumor Neoantigens through Epitope Spreading

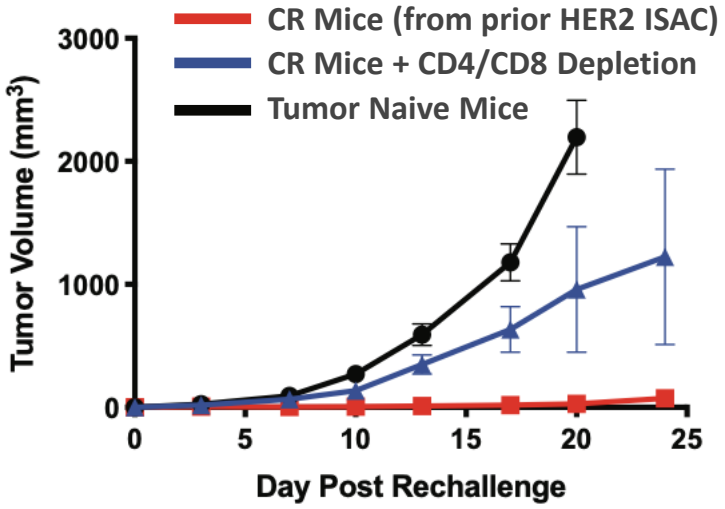
### Heterogenous HER2+ Tumors
10% of Tumor Cells Lack HER2 Expression




### Epitope Spreading with ISAC
Clearance of Heterogenous Tumors in Mice




### Rechallenge with HER2neg CT26
Epitope Spreading Dependent on T Cells




CT26-rHER2+ or CT26-rHER2neg Syngeneic Colorectal Cancer Models



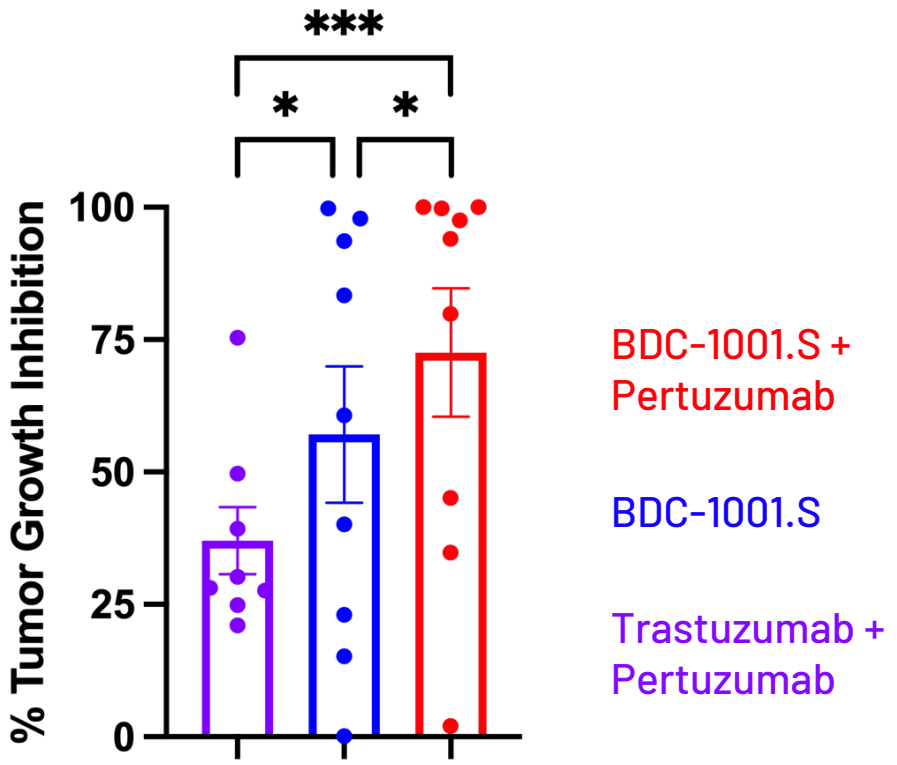
Ackerman SE, et al. *Nature Cancer*. 2021.

# Strong Mechanistic Rationale for Combining with Pertuzumab

## Pertuzumab Improves BDC-1001 Anti-tumor Efficacy

- **Well-documented clinical benefit of pertuzumab + trastuzumab**
  - Standard of care with docetaxel or paclitaxel in several breast cancer settings
- **Pertuzumab strengthens BDC-1001 mechanism**
  - Pertuzumab targets different epitope, blocks HER2/3 dimerization
  - Enhances ADCP by providing more Fc "eat-me" signals
- **Preclinical data demonstrate multiple benefits**
  - Deepens efficacy of BDC-1001
  - May unlock anti-tumor efficacy at lower dose levels of BDC-1001

**Activity Assessed Across 9 HER2 Tumor Models**




Tumor bearing scid/beige mice (9 different tumor models, n=6 mice per group) were treated systemically with 5 mg/kg of the indicated test articles q5dx4. %TGI at Day 20-23 post-treatment relative to the isotype control (rituximab, data not shown) was calculated by: 1-(tumor volume$_{treated}$/tumor volume$_{control}$)*100. *p <0.05, ***p<0.001 by paired t-test



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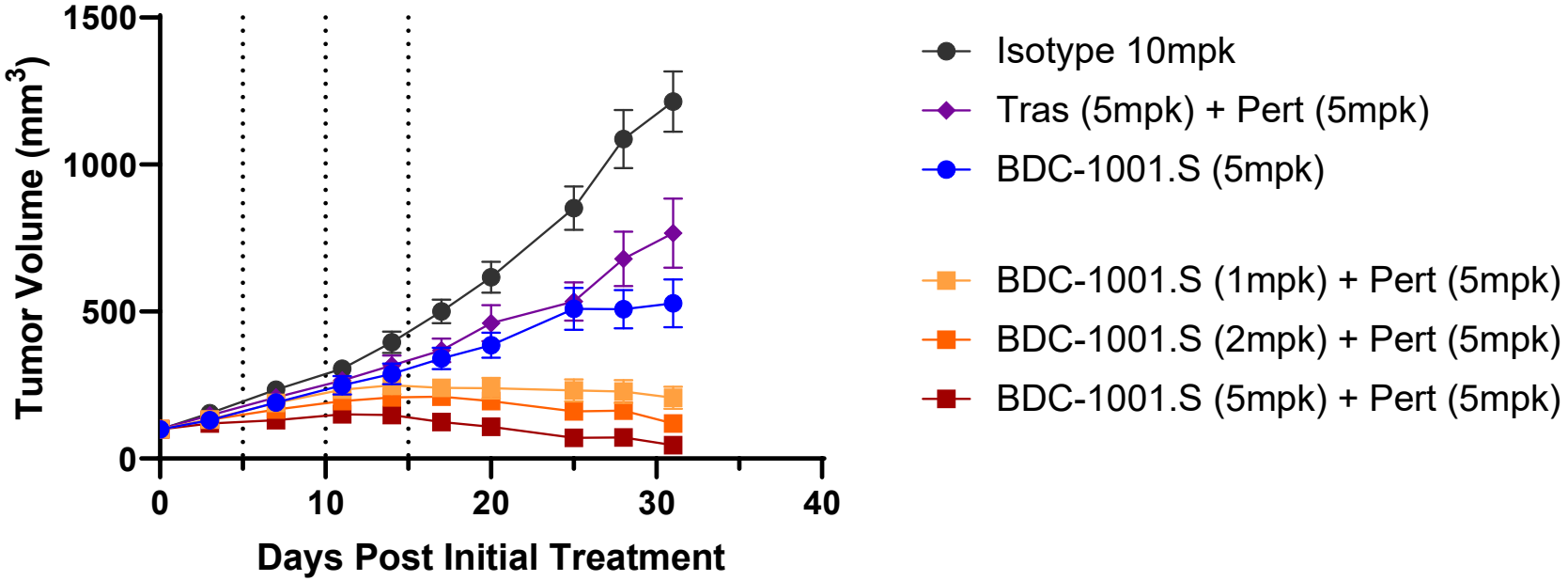
# BDC-1001 Plus Pertuzumab Produces Strong Anti-tumor Activity in JIMT-1 Model

## Pertuzumab May Enhance BDC-1001 Anti-tumor Activity




SCID/beige mice with JIMT-1 tumors (n=6 per group) were treated systemically with the indicated test article(s) Q5Dx4 (dashed lines). The BDC-1001 surrogate (BDC-1001.S) was administered at the indicated dose. Data are shown as mean with SEM and are from 1 experiment. Study ID: 20220331



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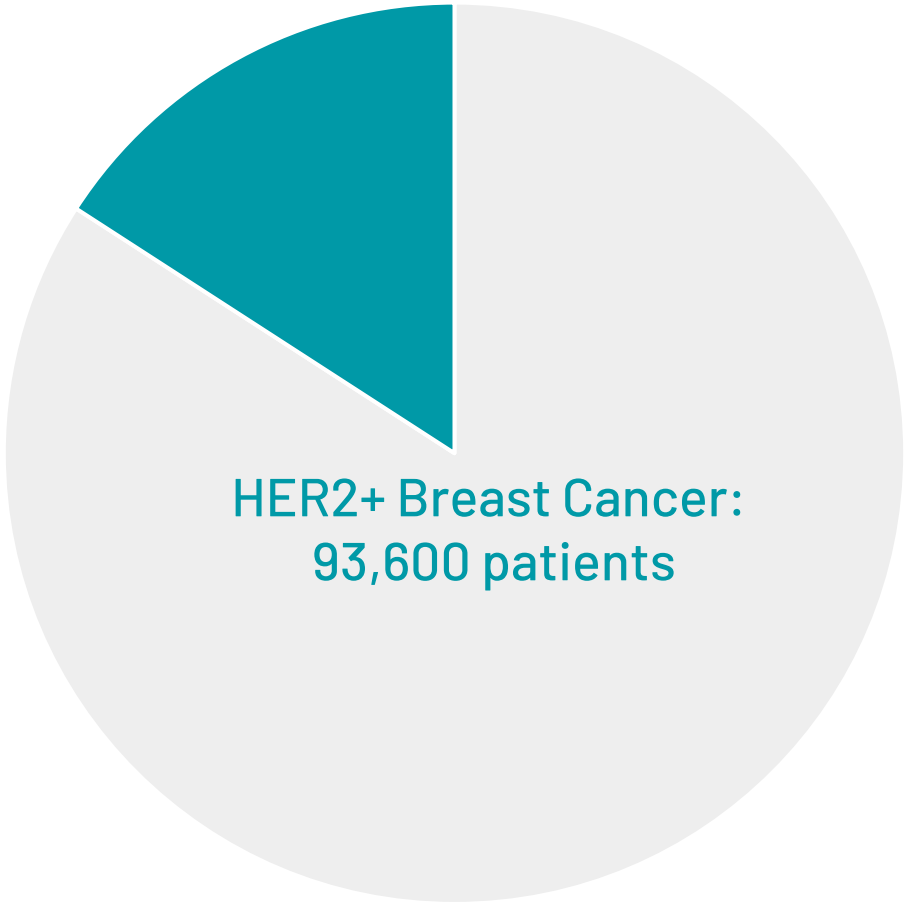
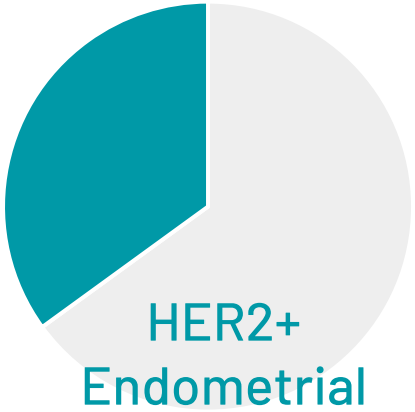
# BDC-1001 Commercial Considerations

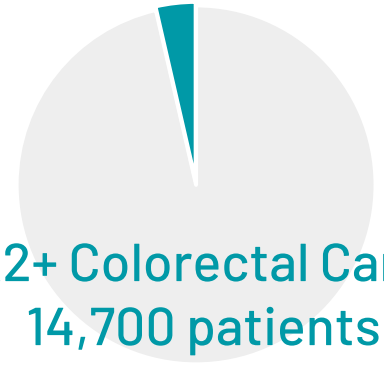
# Significant Unmet Needs Exist for Patients with HER2-Positive Tumors

## Newly Diagnosed Patients in 2022










US + Top 5 EU 2022 annual incidence numbers & HER2 segmentation based upon Globe Life Sciences research.

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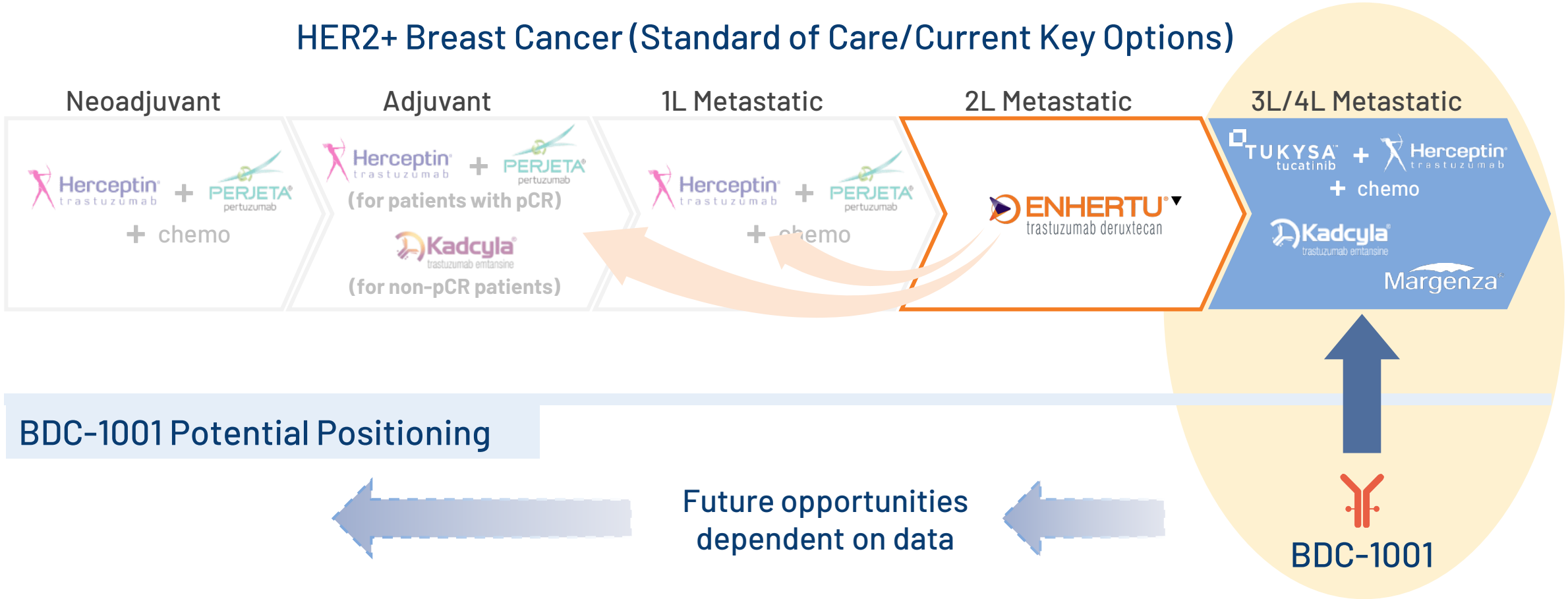
# BDC-1001: Initially Targeting Post-Enhertu® Opportunity, with Future Plans to Expand to Adjuvant/Neoadjuvant

HER2+ Breast Cancer

## HER2+ Breast Cancer (Standard of Care/Current Key Options)



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# BDC-1001: Opportunity to be First HER2-Targeted Therapy in Endometrial Cancer

HER2+ Endometrial

## HER2+ Endometrial Cancer (Standard of Care/Current Key Options)

| 1L Metastatic | 2L+ Metastatic |
| --- | --- |
| No anti-HER2 therapy approved (NCCN: Herceptin + chemo) | No anti-HER2 therapy approved.<br><br>Re-treatment with Herceptin + chemo is the recommended option, specifically for serous carcinoma subtype |

BDC-1001 Potential Positioning

BDC-1001



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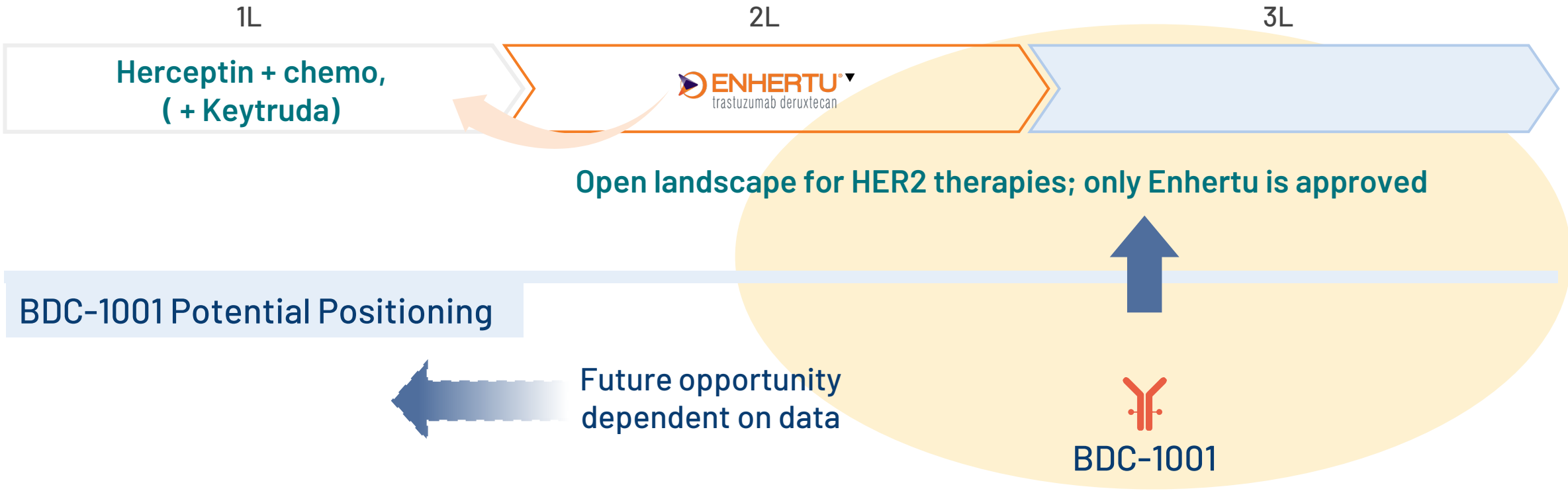
# BDC-1001: Potential to Capitalize on Growing Role of Next-generation HER2 Therapies in Gastroesophageal Cancer

HER2+ Gastric

## HER2+ Gastroesophageal Cancer (Standard of Care/Current Key Options)



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# BDC-1001: Capitalize on Emerging Opportunity for HER2 Therapies in CRC

HER2+ Colorectal

## HER2+ Colorectal Cancer (Standard of Care/Current Key Options)


**Current 1L approach similar for patients with HER2+ and HER2- tumors**

**Jan '23 approval of Tukysa could catalyze role for HER2 Therapies in CRC**

## BDC-1001 Potential Positioning

Future opportunity dependent on data

BDC-1001



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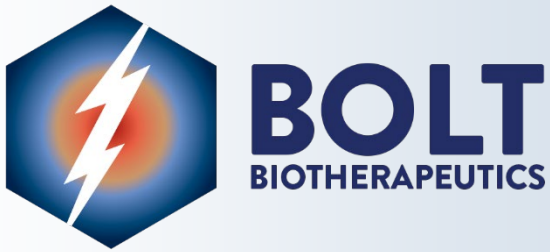


# Thank You