

Conjugates without Premature Cleavage

# IntoCell

*IntoCell, Into Practice*

Dec. 2025





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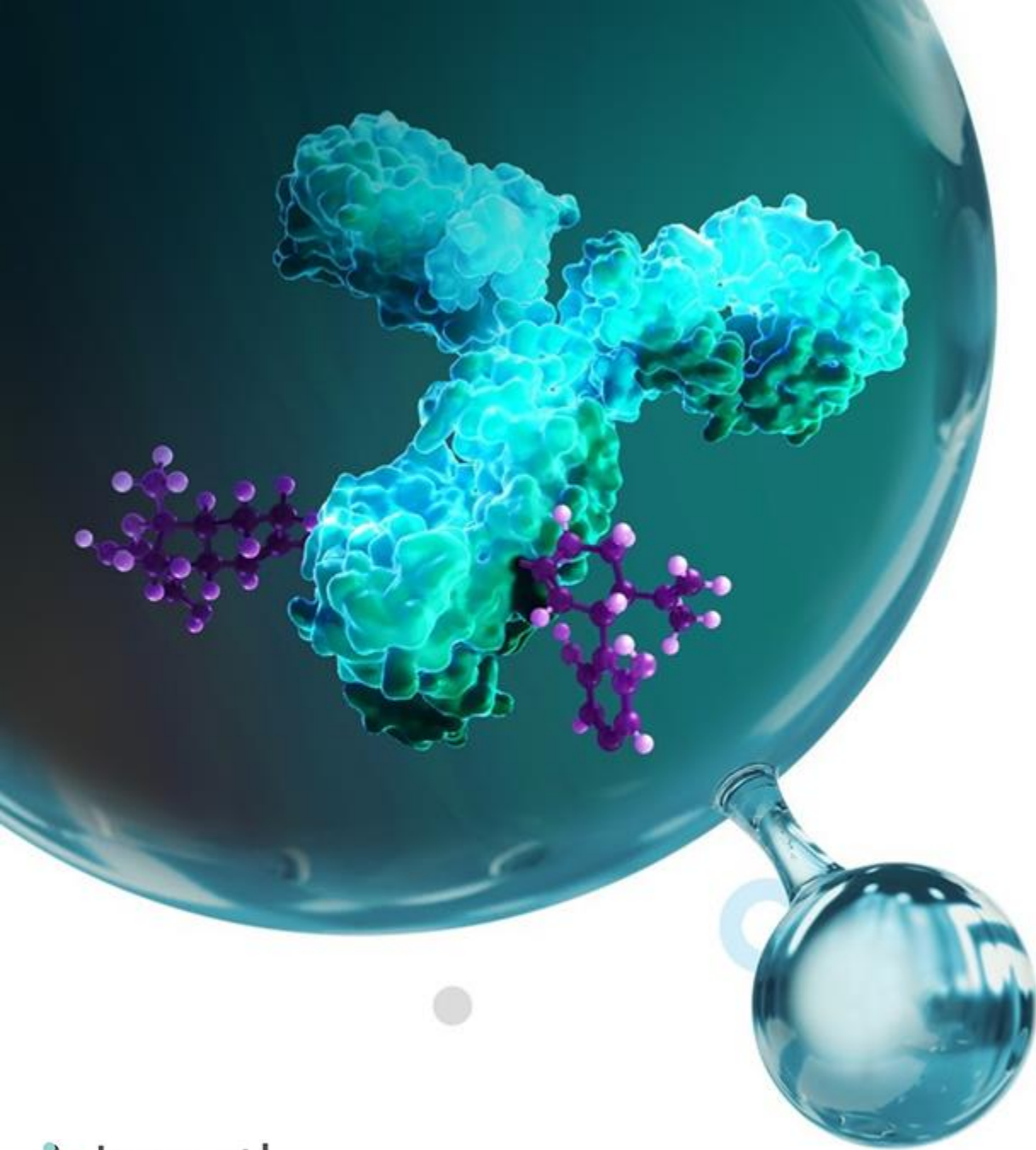
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### ■ IntoCell Vision



# Introduction

- 01. Introducing IntoCell
- 02. Company Overview
- 03. Founders and Leadership
- 04. Management
- 05. IntoCell is Evolving

# 01 Introducing IntoCell

- Founded in 2015; **KOSDAQ**-listed (May 2025)
- **46 employees** including **21 medicinal chemists** and **14 biologists**
- Developed **two Platform Technologies, Focused Libraries of Payload**, and Pipelines of novel ADCs

## **OHPAS™ Linker**

A novel self-immolative group (SIG) with highly flexible cleavage chemistry dubbed as OHPAS

## **PMT™ Technology**

A Payload Modification Technology to improve therapeutic index

## **Payload Libraries**

- Benzodiazepine: 2 patents
- Duocarmycin: 2 patents
- Nexatecan: 1 patent
- iso-Nexatecan: 1 patent
- PNU: 1 patent

## **ADC Pipeline**

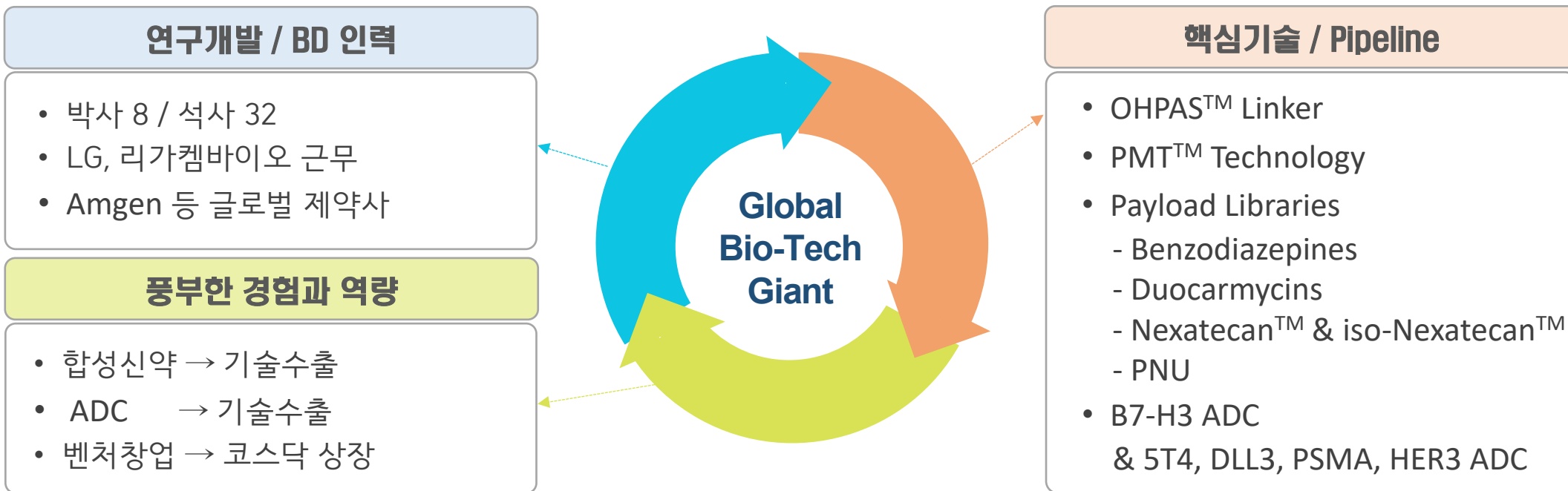
Pre-clinical + Clinical;  
The most advanced is a ITC-6146RO (B7-H3 ADC),  
**IND cleared by both FDA & MFDS for Ph1**

- Our core assets are protected by multiple **patents filed** in Korea, US, and through the PCT, as supported by **robust synthetic routes that enable production** at multi-gram scale

## 02 Company Overview

|      |                    |     |                      |
|------|--------------------|-----|----------------------|
| 설립일  | 2015. 04. 01       | 소재지 | 대전시 대덕구 신일동로 101     |
| 자본금  | 75억원 (14,997,600주) | 임직원 | 총 46명 (임원 8 / 직원 38) |
| 최대주주 | 박태교 대표이사 등* 25.62% | 액면가 | 500원                 |

\* 최대주주 및 특수관계인 8인과 특별관계인 6인 합산 (스톡옵션 등 감안 시 25.69%)  
SI(리가캠바이오, 상장 후 3년 확약) 2.93% 포함 시 우호지분 28.56%





## 박태교 대표이사

서울대학교 화학과 (1983년)

서울대학교 화학과 석사 (1985년)

MIT 화학과 박사 (1992년)

Yale Univ. Post-Doc (1992 ~ 1993년)

Memorial Sloan-Kettering Cancer Center, Post-Doc (1993 ~ 1995년)

LG 생명과학 기술연구원 (1995 ~ 2006년)

(주)리가켄바이오사이언스 (2006 ~ 2015년)

- 공동창업 / 코스닥 상장주역

- CTO (수석부사장)

현 인투셀 대표 (2015 ~ )

연구논문 31편, 국제특허 > 30건

연구경력 40년 이상

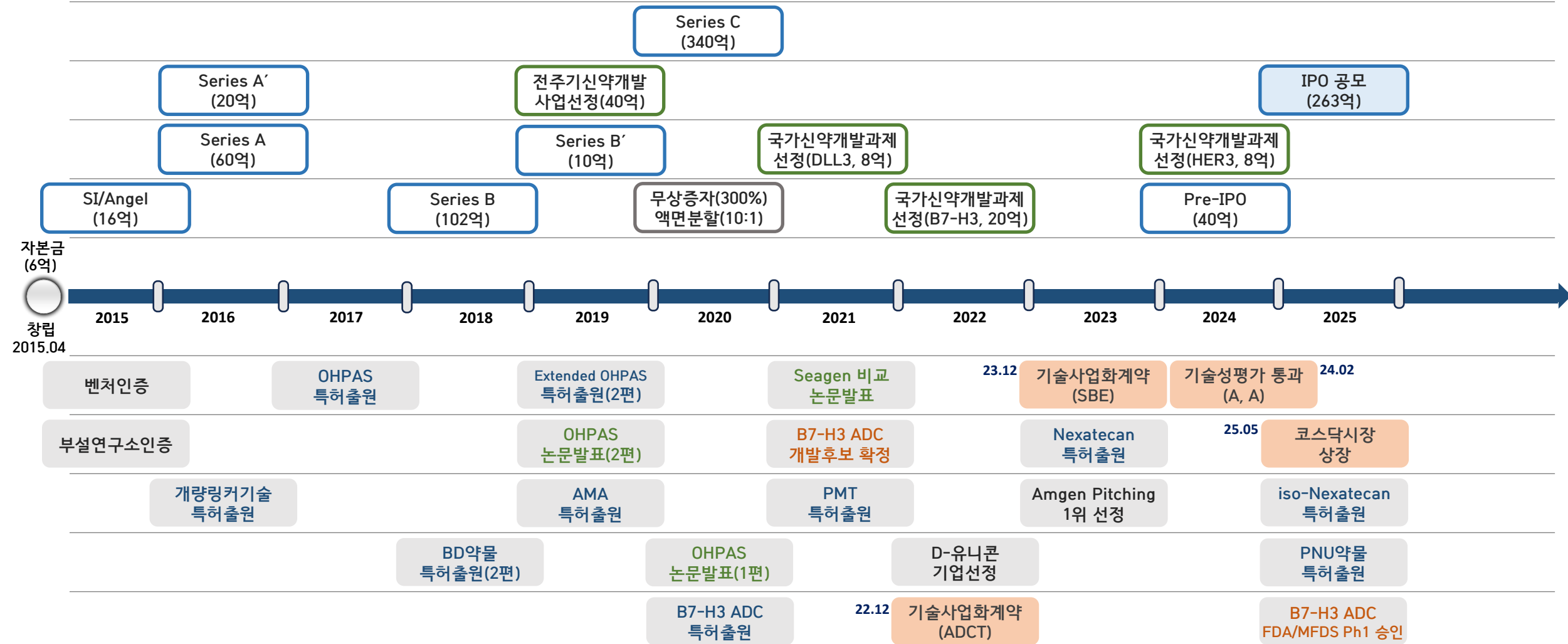
| 연구 기관        | 대표 연구 업적                                     | Comment                                                                        |
|--------------|----------------------------------------------|--------------------------------------------------------------------------------|
| 박사 과정        | Self-Replicating Molecule 연구<br>Science 지 게재 | Nature 해설기사, C&EN 보도<br>(논문 5편)                                                |
| 박사 후 과정      | Globo-H 합성                                   | C&EN 보도 (논문 13편)                                                               |
| LG 생명과학      | 항응혈제 연구                                      | LG 그룹 연구 대상 (2004)<br>기술연구원 창의상 (2005) 수상                                      |
| LigaChem Bio | ConjuALL™ 발명<br>Cyclic Amidrazone 발명         | 수 건의 L/O 토대<br>Nokxaban (항응혈제, GC녹십자 공동개발) 및<br>Delpazolid (항생제, 리가켄 개발 중)에 활용 |
| IntoCell     | <b>OHPAS™ 발명</b><br>PMT Approach 창안          | 현존 최고의 Linker Technology<br>B7-H3 개발 후보 기적용, 타 PJT 활용                          |

가장 파급력 있는 연구결과 “OHPAS Technology”

# 05 IntoCell is Evolving

누적조달금액: 851억원

국책선정금액: 76억원



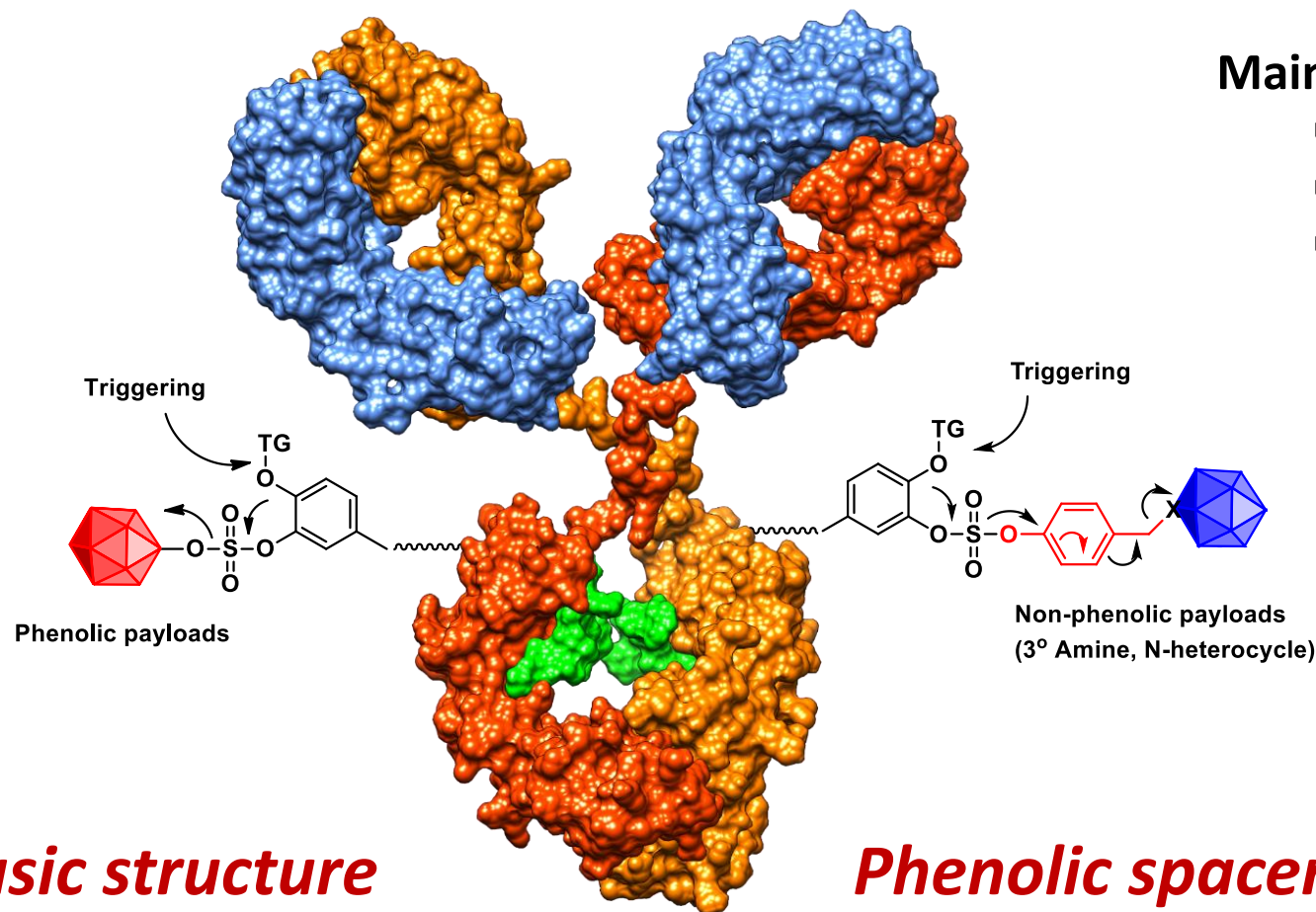
\* 특허는 우선일 적용받는 가출원일자 기준



# IntoCell Technology

- 01. OHPAS™ Linker
- 02. PMT™ Technology
- 03. Payload Libraries
- 04. Pipelines

# Ortho Hydroxy-Protected Aryl Sulfate (OHPAS) Linker



## Main feature:

- Generality
- Stability
- Compatibility

## Basic structure

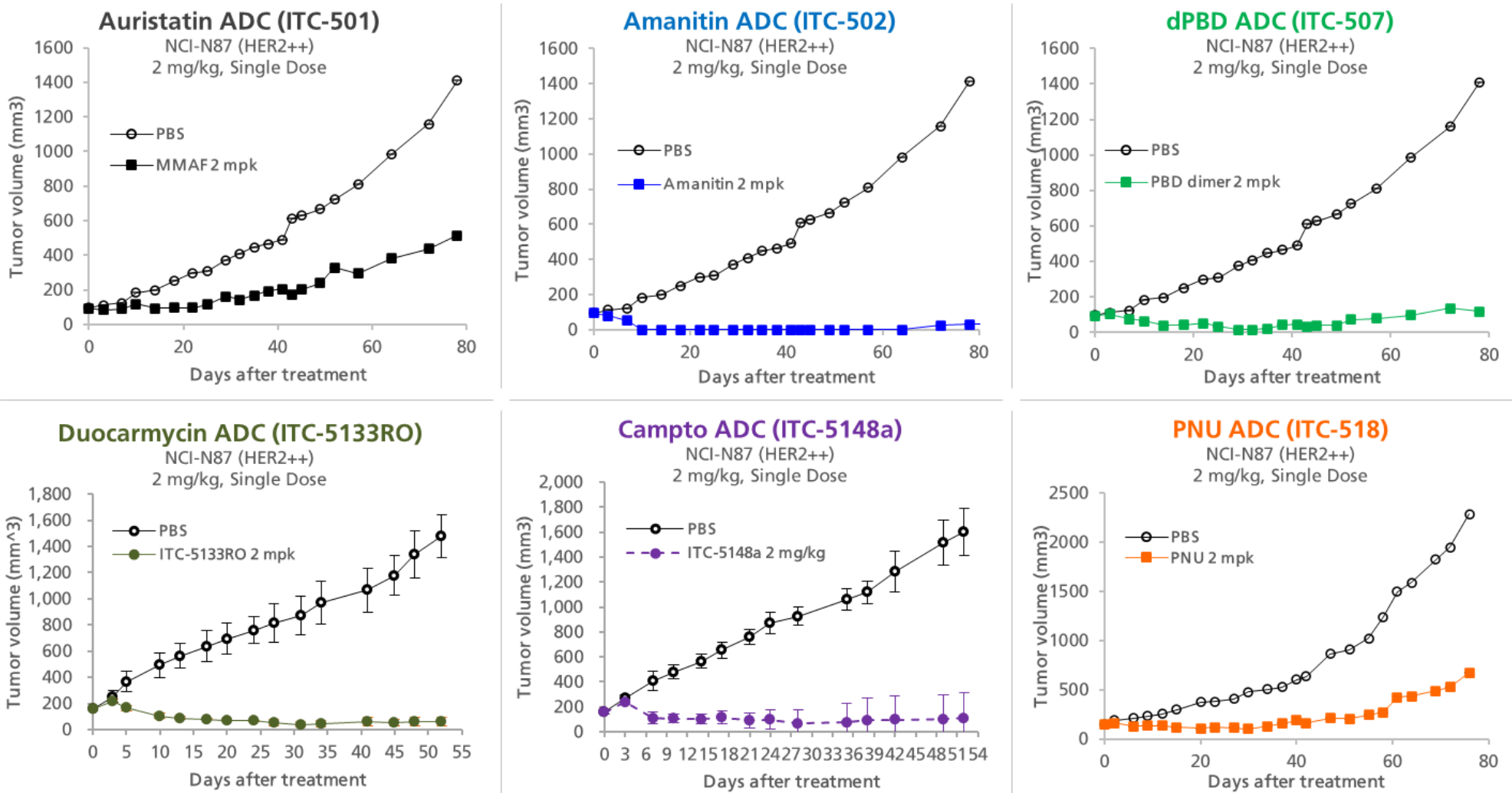
*Bioconjugate Chem.* **2019**, 30, 1957–1968.

## Phenolic spacer introduced

*Bioconjugate Chem.* **2019**, 30, 1969–1978.

# OHPAS ADCs: Proven Efficacy Across Diverse Payloads (Generality)

Various OHPAS ADCs → Highly efficacious when tested in vivo



OHPAS Linker is Compatible with Many Toxins Used in ADC Field

All compounds tested as Trastuzumab\* conjugates (In Vitro Activity, HER2 ADC)

| IC <sub>50</sub> (nM) >> |           | T-DM1  | ITC-501 | ITC-502  | ITC-507 | ITC-508    | ITC-509 | ITC-510      | ITC-520 | ITC-516 |
|--------------------------|-----------|--------|---------|----------|---------|------------|---------|--------------|---------|---------|
| DAR >>                   |           | 3.5    | 2.0     | 1.7      | 1.9     | 2.0        | 2.0     | 2.0          | 2.0     | 1.8     |
| Toxin                    | *ABS      | DM1    | MMAF    | Amanitin | dPBD    | CBI indole | dCBI    | Auristatin F | dTBD    | Phenpan |
| SK-Br-3(3+)              | 5,514,307 | 0.035  | 0.017   | 0.026    |         |            |         | 0.010        |         | 0.898   |
|                          |           | *0.036 |         | 0.600    | 0.015   | 0.029      | 0.010   |              | 0.007   |         |
| NCI-N87(3+)              | 2,826,736 | 0.258  | 0.203   |          |         |            |         | 0.163        |         | 4.757   |
|                          |           | *0.218 |         | 0.115    | 0.028   | 0.083      | 0.025   |              | 0.015   |         |
| SK-OV3(3+)               | 4,320,935 | 0.140  | 0.310   | 0.149    |         |            |         | 0.262        |         | >500    |
|                          |           | *0.106 |         |          | 0.045   | 0.041      | 0.020   |              | ND      |         |
| JIMT-1(2+)               | 363,570   | 1.758  | 0.172   | >50      |         |            |         | 0.092        |         | 250     |
|                          |           | *2.815 |         |          | 0.075   | 0.029      | 0.019   |              | 0.056   |         |
| MCF7(-)                  | 42,167    | >50    | >50     | >50      |         |            |         | ND           |         | ND      |
|                          |           | *>40   |         |          | >50     | 0.584      | ND      |              | ND      |         |
| MDA-MB-468(-)            | 144       | 8.920  | >50     | >50      |         |            |         | >50          |         | ND      |
|                          |           | *9.940 |         |          | 3.781   | 0.176      | 3.001   |              | ND      |         |

T-DM1: purchased

Trastuzumab\* = A121C variant of Trastuzumab @HC

DAR is estimated from HPLC peak area after isolation

ND: Not determined

MTT assay: 4 day

\*MTT assay: 6 day

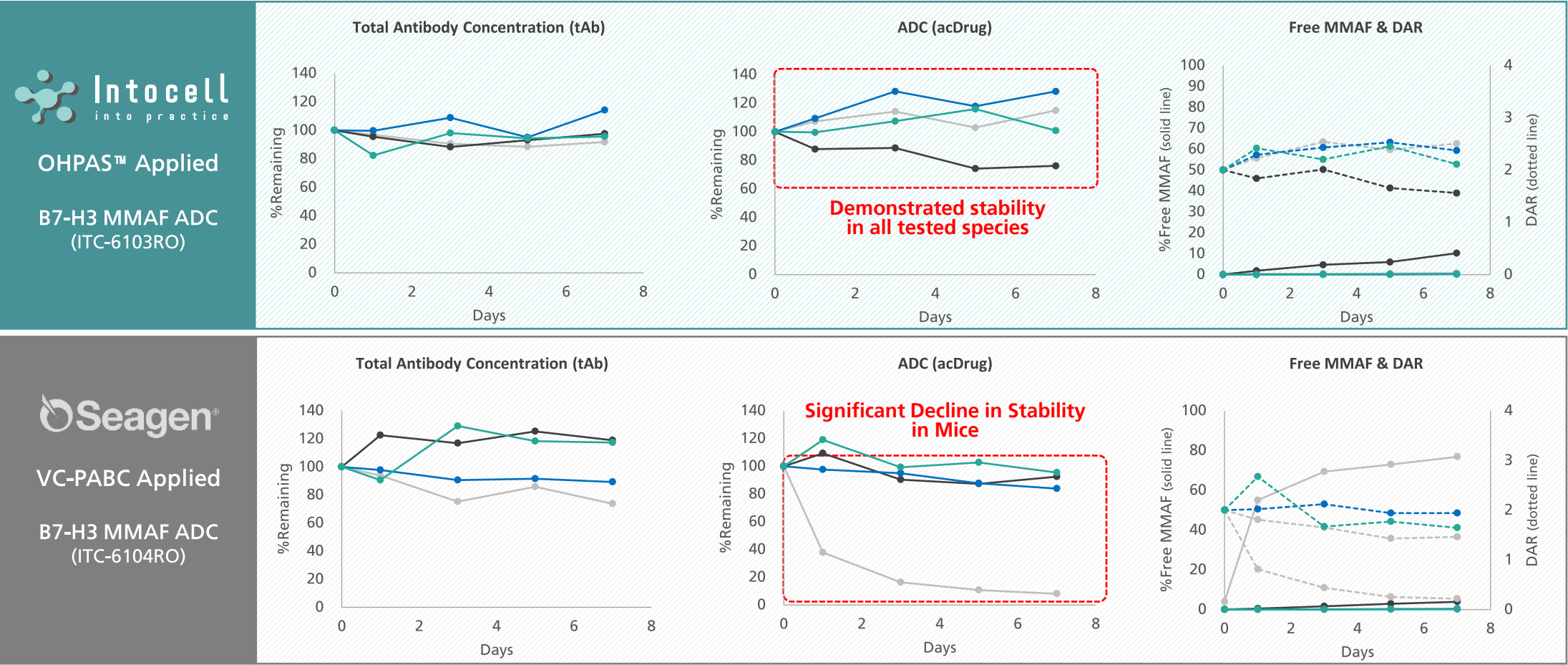
\*ABS: antibody binding site



# OHPAS Linker Proved to be Highly Stable in Plasma (Stability)

## Superior Blood Stability Across Species (vs. VC-PABC Conjugate)

Plasma Stability Assessment Data by Species



# OHPAS Mitigates Bone Marrow Toxicity

| ADC                       |                   | Neutropenia           | Thrombocytopenia | Anemia | ILD <sup>‡</sup> |
|---------------------------|-------------------|-----------------------|------------------|--------|------------------|
|                           |                   | > Grade 3 (any grade) |                  |        |                  |
| MGC-018, PI/II, FIH Study |                   | 22.1%                 | 7%               | 5.8%   |                  |
| Adcetris, Phase III       |                   | 29%                   |                  | 4%     |                  |
| Enhertu                   | Phase III         | 19.1%                 | 7%               | 5.8%   |                  |
|                           | Destiny-Gastric01 | 51% (72%), (4.8**%)   |                  |        | 2.4% (10%)       |

\* Treatment Emergent Adverse Effect

<sup>‡</sup> Interstitial Lung Disease

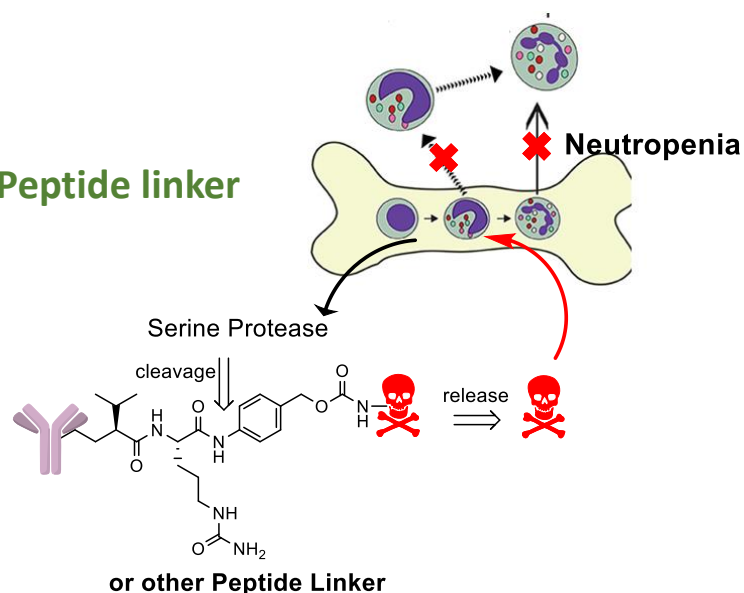
\*\* Febrile neutropenia of any grade

## ■ OHPAS Conjugates Are Expected to Cause Reduced Neutropenia

OHPAS linkers are resistant to enzymes of any kind:

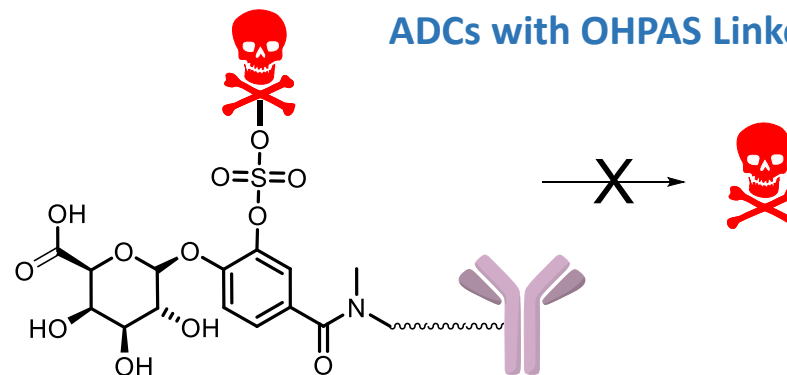
Payloads are released only by designated enzymes in lysosomes

ADCs with Peptide linker



VS

ADCs with OHPAS Linker

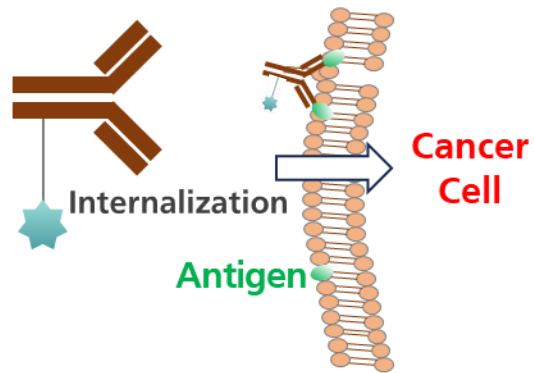


# Payload Modification Technology (PMT):

## To Increase Therapeutic Index → Non-Specific Uptake ↓

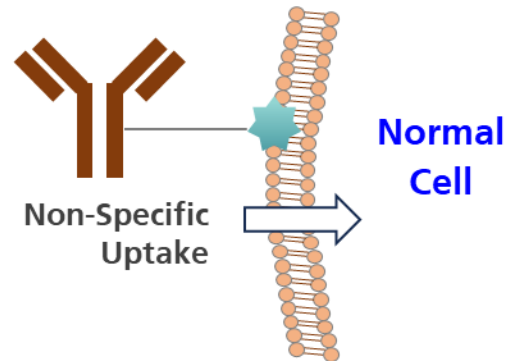
PMT reduces non-selective uptake of ADC through inhibition of drug-membrane interaction

### Ideal ADC



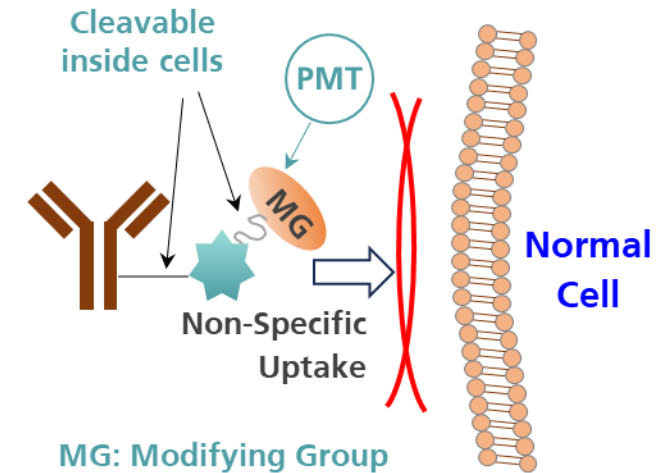
Internalization via Receptor Mediated Endocytosis (**RME**)

### Real ADC



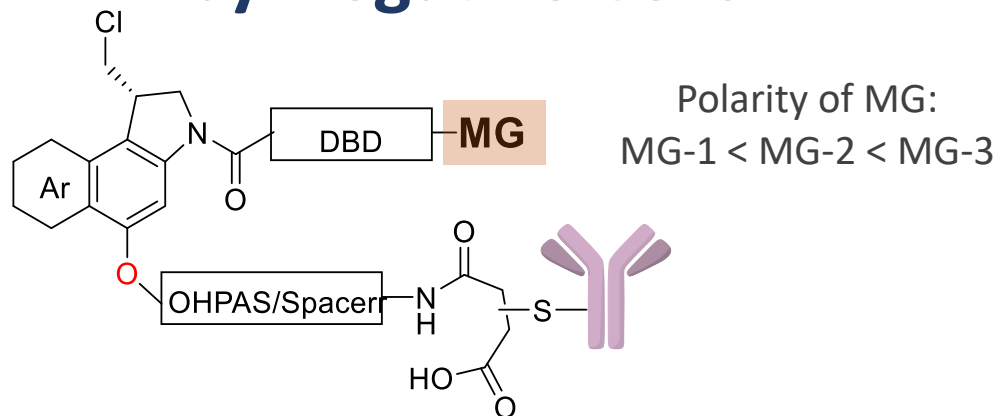
Non-specific uptake is mainly through Payload vs membrane interactions (**Macropinocytosis**)

### PMT Technology



Inhibiting interaction between the payload and membrane reduces non-specific uptake

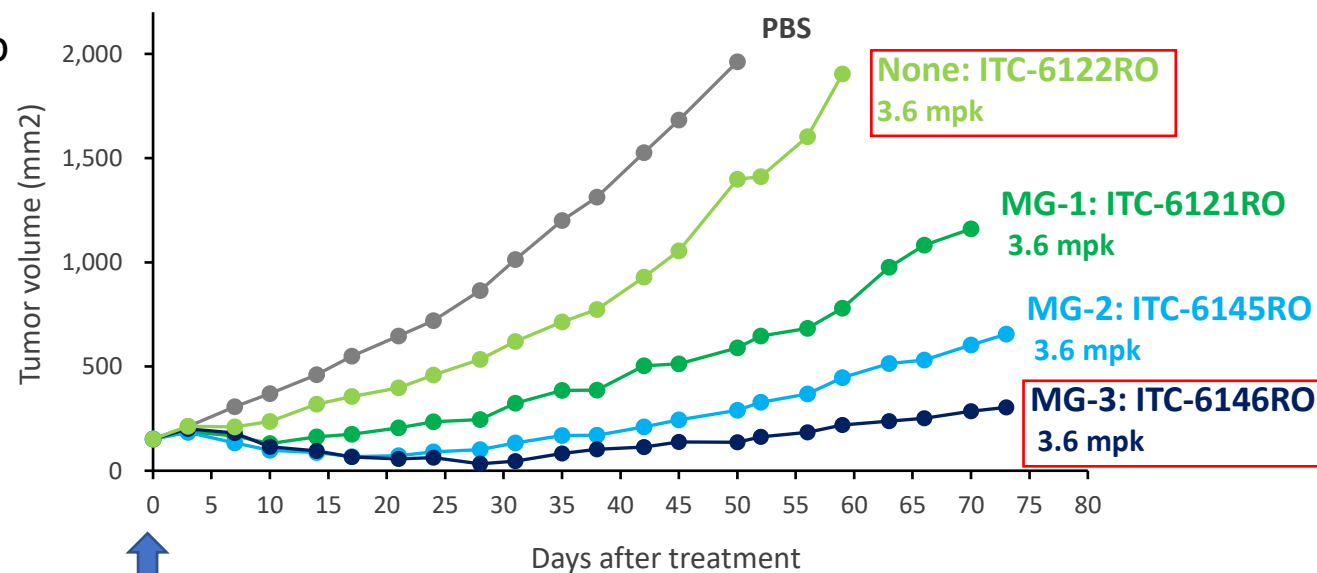
# Modifying Group(MG) Reduces Non-specific Uptake of ADC by Negative Cells



- MG significantly increases selectivity for B7-H3 positive over negative cells
- MG group reduces normal cell uptake, resulting in improved PK in vivo
- PMT helps enhance TI of ADC

| ADC<br>(DAR 2) | MG   | in vitro MTT IC <sub>50</sub> (nM) |             |
|----------------|------|------------------------------------|-------------|
|                |      | JIMT-1(++)                         | CCRF-CEM(-) |
| ITC-6122RO     | none | 0.20±0.09                          | 5.84±0.52   |
| ITC-6121RO     | MG-1 | 0.44±0.31                          | 34.2±0.8    |
| ITC-6145RO     | MG-2 | 0.32±0.22                          | 989±50      |
| ITC-6146RO     | MG-3 | 0.30±0.13                          | 1006±29     |

In vivo

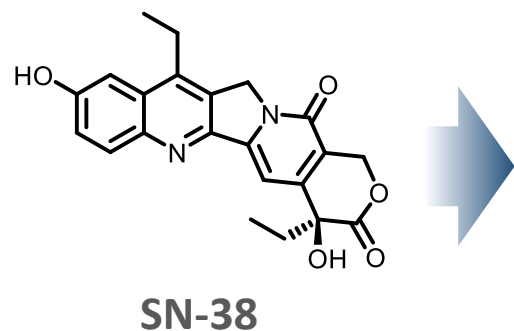


Polarity ↑

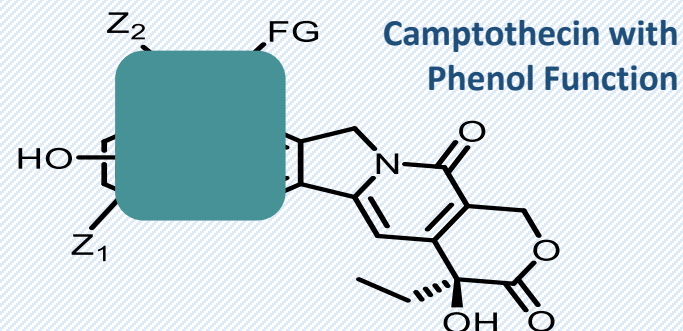
Selectivity  
172-fold ↑  
by PMT

# OHPAS-able & TBA-able Libraries of Payloads

## Nexatecans & iso-Nexatecans

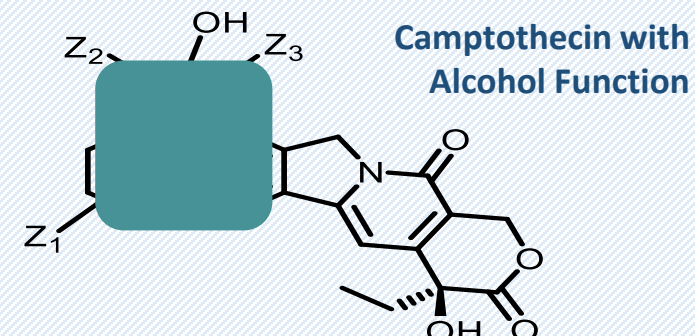


### OHPAS-compatible Camptothecins



(+ GGFG-compatible)

### TBA-compatible Camptothecins



## Other OHPAS-able Payload Libraries

### OHPAS-able dPBD

- Symmetrical & Unsymmetrical
- Patent (US Application No.)
  - 1) 16/425,237
  - 2) 17/289,545

### OHPAS-able Duocarmycin

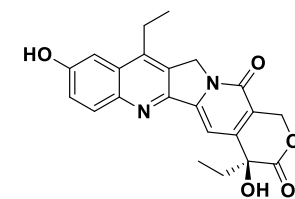
- PMT-applied Duocarmycin
- Applied to in-house PGM (ITC-6146RO)
- Patent (US Application No.)
  - 1) 18/084,739
  - 2) 17/358,306

### OHPAS-able Doxorubicinoid

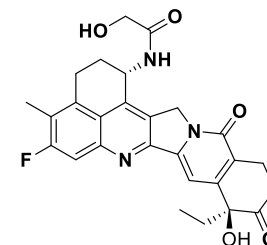
- PNU-derivatives
- Patent (KR Application No.)
  - 1) 10-2025-0101218

# Nexatecans & their ADCs are Highly Potent

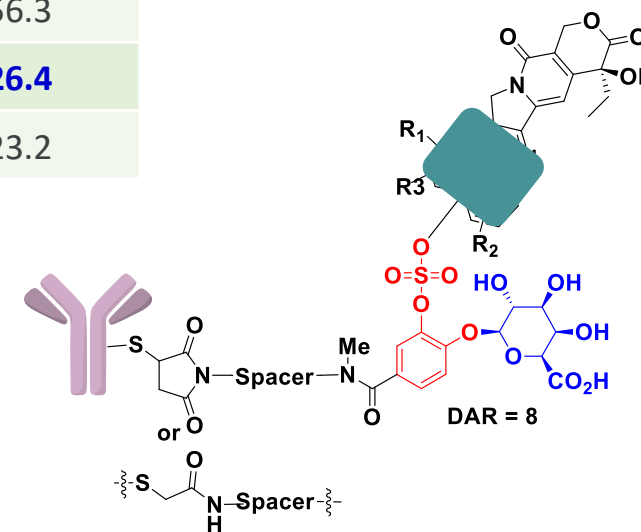
|      | Code number      | DAR        | Compds                   | IC <sub>50</sub> (nM, n≥3) |                  |                   |                 |                |                   |
|------|------------------|------------|--------------------------|----------------------------|------------------|-------------------|-----------------|----------------|-------------------|
|      |                  |            |                          | Cell                       | SK-BR-3 (Breast) | NCI-N87 (Gastric) | JIMT-1 (Breast) | HCT116 (Colon) | MDA-MB-468 (TNBC) |
|      |                  |            |                          | Her2 (×10 <sup>5</sup> )   | 16.7             | 13.3              | 1.7             | 0.2            | 0.003             |
| Drug | ITC02-036        | -          | SN38                     |                            | 1.12             | 6.52              | 40.8            | 10.5           | 0.675             |
|      | ITC02-108        | -          | DXd                      |                            | 1.32             | 3.80              | 35.3            | 11.4           | 0.450             |
|      | <b>ITC02-127</b> | -          | <b>Nexatecan3 (NxT3)</b> |                            | <b>0.31</b>      | <b>0.45</b>       | N/D             | N/D            | <b>0.168</b>      |
| ADC  | ITC-5140         | 7.4        | HER2-OHPAS-SN38          |                            | 0.470            | 2.18              | 1650            | 522            | 40.2              |
|      | Enhertu          | 7.7        | HER2-GGFG-DXd            |                            | 0.115            | 0.370             | 496             | 570            | 56.3              |
|      | <b>ITC-5148a</b> | <b>7.5</b> | <b>HER2-OHPAS-NxT3</b>   |                            | <b>0.074</b>     | <b>0.175</b>      | N/D             | N/D            | <b>26.4</b>       |
|      | T-DM1            | 3.5        | HER2- MCC-DM1            |                            | 0.143            | 0.072             | 2.24            | 35.3           | 23.2              |



ITC02-036 (SN38)



ITC02-108 (DXd)



OHPAS-NxT3

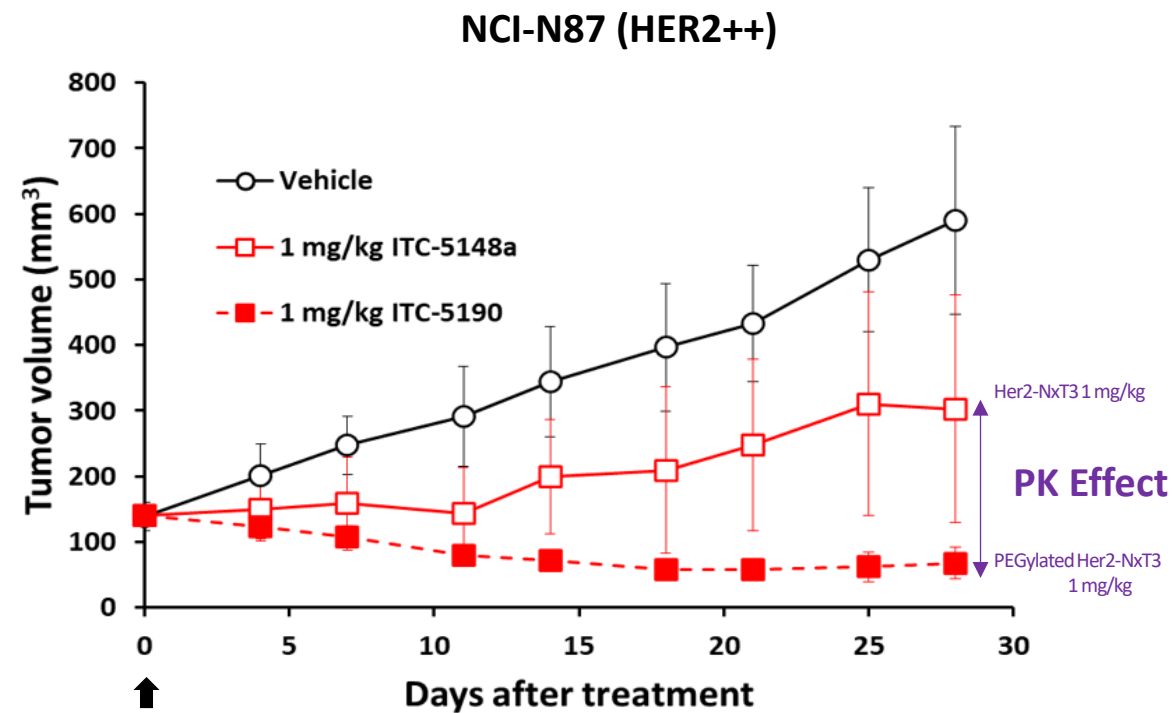
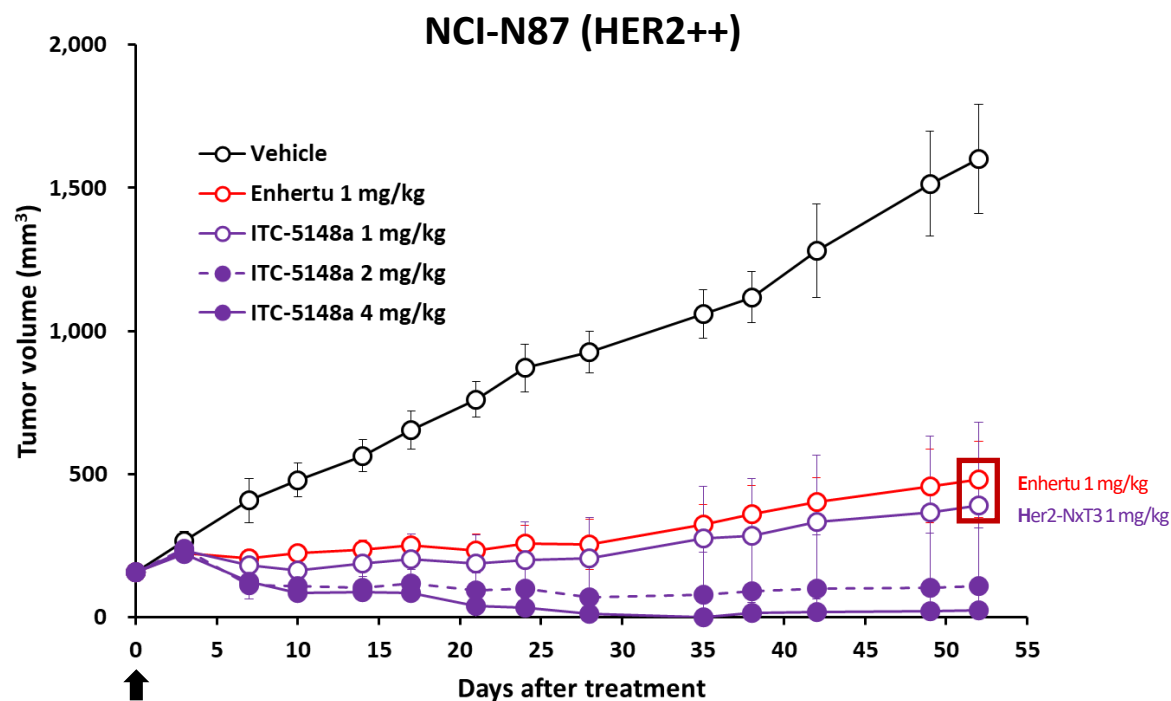
- A series of NxTs and their trastuzumab ADCs were tested
- Anti-HER2-NxT3 showed the highest potency
- Conjugation via maleimide or bromoacetamide routinely yielded DAR 8 without aggregation

# HER2 NxT3 ADC (ITC-5148a) Is Safer Than Enhertu® in Cyno Studies

| Parameters           | Major Findings                                                             |                                                                                                      |
|----------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|                      | ITC-5148a (30, 50, 75 mg/kg, Q3Wx3)<br>1M/1F (Main)                        | Enhertu (10, 30, 78.8 mg/kg, Q3Wx3)*<br>3M/3F (Main) + 2M/2F (Recovery)                              |
| Mortality            | No mortality occurred up to 75 mpk                                         | One moribund female was found at 78.8 mpk (Day 26)                                                   |
| Body Weight          | 75 mg/kg (M) : decrease body weight                                        | 78.8 mg/kg: decreased body weight                                                                    |
| Food Consumption     | No test article-related significant changes                                | 78.8 mg/kg: decreased food consumption                                                               |
| Clinical observation | No test article-related significant changes                                | 78.8 mg/kg: diarrhea, abnormal skin color (blackish brown)                                           |
| Hematology           | 75 mg/kg : decreased red blood cells, increased reticulocyte and platelets | ≥ 30 mg/kg: decreased red blood cell parameters (erythrocytes, hemoglobin, hematocrit)               |
| Clinical Chemistry   | No test article-related significant changes                                | ≥10 mg/kg: increases in AST, LDH, and CK                                                             |
| Gross Pathology      | 50, 75 mg/kg : No test article-related significant changes                 | 78.8 mg/kg: black foci in the skin, white foci in the lungs                                          |
| Histopathology       | No test article-related significant changes                                | 30, 78.8 mg/kg : Skin pigmentation and lung lesions were not recovered after 6-week recovery periods |
| HNSTD                | > 75 mg/kg                                                                 | 30 mg/kg                                                                                             |

\* Enhertu data from NDA

# PEGylated ADC Outperforms non-PEGylated in vivo



## New Sets of Nexatecans

## Re-evaluation of existing / newly discovered NxTs

- Equal or better than existing NxTs

| IC <sub>50</sub> (nM) |          |       |          |       |             |       |
|-----------------------|----------|-------|----------|-------|-------------|-------|
| 약물                    | SK-BR-3* |       | NCI-N87* |       | MDA-MB-468* |       |
|                       | Free     | ADC** | Free     | ADC** | Free        | ADC** |
| NxTA                  | 0.68     | 0.06  | 2.97     | 0.25  | 0.50        | 153.6 |
| NxTX                  | 0.28     | 0.06  | 0.32     | 0.08  | 0.14        | 5.54  |
| NxTY                  | 0.32     | 0.06  | 1.04     | 0.20  | 0.21        | 44.9  |
| NxTZ                  | 0.36     | 0.08  | 1.06     | 0.21  | 0.20        | 5.05  |
| NxT3                  | 0.31     | 0.07  | 0.48     | 0.13  | 0.18        | 30.0  |
| Exatecan              | 0.53     | 0.39  | 0.75     | 1.65  | 0.32        | 3.59  |
| DXd                   | 1.28     | 0.11  | 4.79     | 0.36  | 0.44        | 56.0  |

\* Average of  $\geq 3$  tests

\*\* HER2 ADC

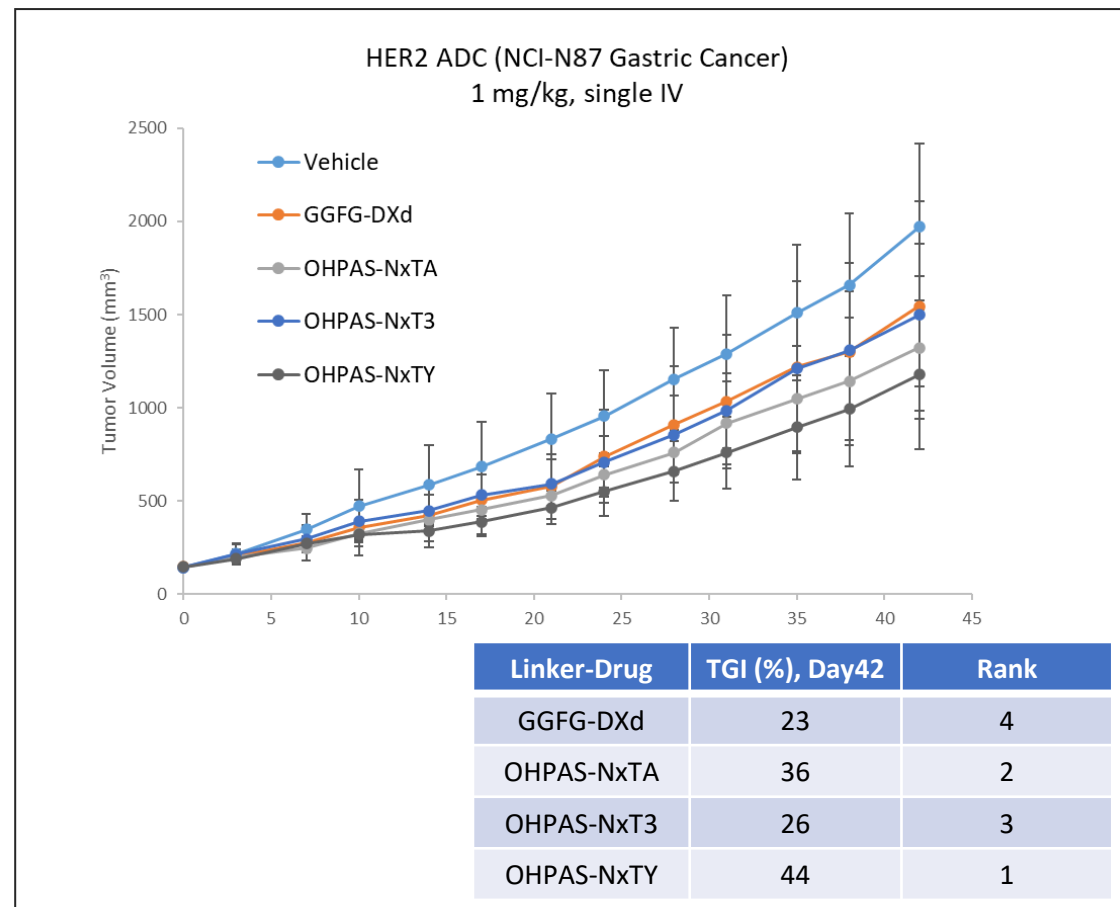
# Re-evaluation Confirms NxT A, X, Y & Z are Promising

Drugs & ADCs are Compared with DXd against HER2 target

## In Vitro Activity

| Drug<br>Linker-Drug |                    | DAR | IC <sub>50</sub> ± SD (nM)       |                                  |                                   |
|---------------------|--------------------|-----|----------------------------------|----------------------------------|-----------------------------------|
|                     |                    |     | SK-BR-3<br>(Breast)              | NCI-N87<br>(Gastric)             | MDA-MB-468<br>(TNBC)              |
|                     |                    |     | HER2 (x10 <sup>5</sup> )<br>21.8 | HER2 (x10 <sup>5</sup> )<br>13.2 | HER2 (x10 <sup>5</sup> )<br>0.003 |
| Drug                | DXd                | -   | 1.28 ±0.18                       | 4.79 ±1.32                       | 0.44 ±0.10                        |
|                     | NxT3               | -   | 0.31 ±0.03                       | 0.48 ±0.16                       | 0.18 ±0.03                        |
|                     | NxTA               | -   | 0.77 ±0.05                       | 3.60 ±1.02                       | 0.58 ±0.22                        |
|                     | NxTX               | -   | 0.28 ±0.04                       | 0.32 ±0.03                       | 0.14 ±0.03                        |
|                     | NxTY               | -   | 0.32 ±0.04                       | 1.04 ±0.11                       | 0.21 ±0.28                        |
|                     | NxTZ               | -   | 0.36 ±0.03                       | 1.06 ±0.03                       | 0.20 ±0.01                        |
| ADC                 | GGFG-DXd (Enhertu) | 7.7 | 0.11 ±0.05                       | 0.36 ±0.12                       | 56.0 ±15.4                        |
|                     | OHPAS-NxT3         | 7.5 | 0.07 ±0.02                       | 0.15 ±0.09                       | 28.2 ±8.40                        |
|                     | OHPAS-NxTA         | 7.8 | 0.06 ±0.00                       | 0.25 ±0.04                       | 111.9 ±10.2                       |
|                     | OHPAS-NxTX         | 8.0 | 0.06 ±0.00                       | 0.08 ±0.02                       | 5.54 ±0.73                        |
|                     | OHPAS-NxTY         | 7.4 | 0.06 ±0.01                       | 0.20 ±0.05                       | 44.9 ±5.49                        |
|                     | OHPAS-NxTZ         | 7.4 | 0.08 ±0.03                       | 0.21 ±0.08                       | 44.9 ±5.49                        |

## In Vivo Efficacy

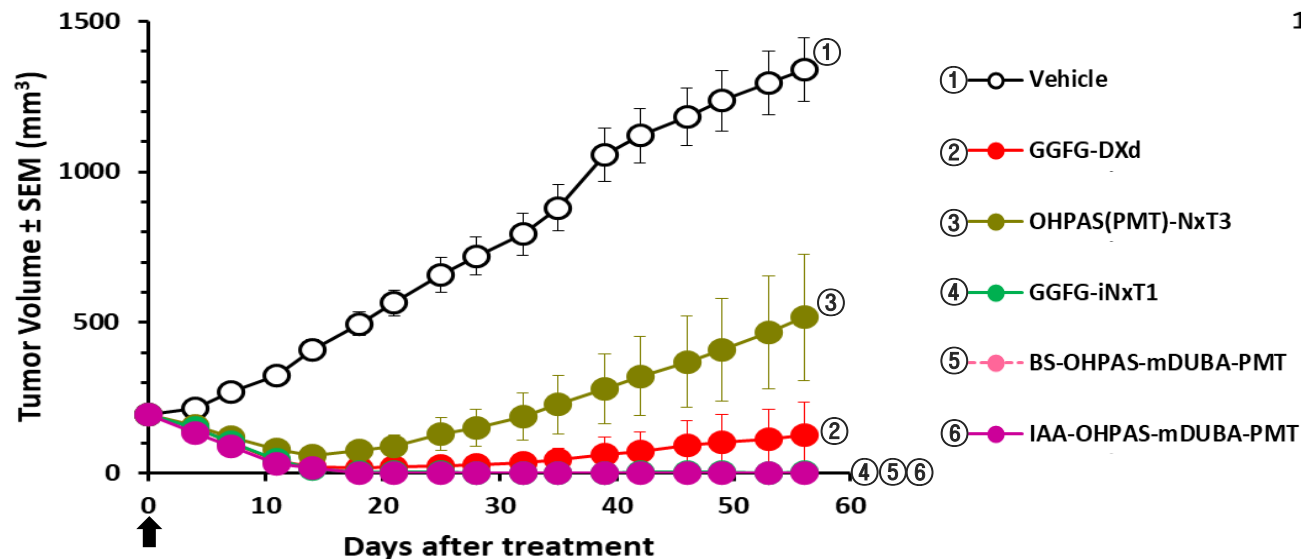


Application of PMT principle in progress

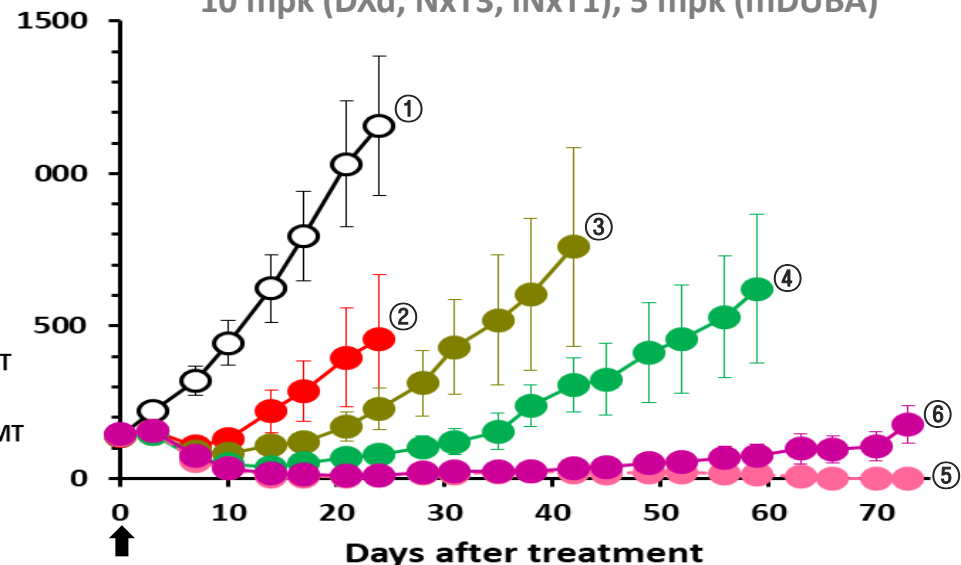
# Iso-Nextecan Looks Even Better

## In Vivo Efficacy of 5T4 ADCs

[MDA-MB-468, TNBC Model, 3 mpk, single IV]



[NCI-H23, NSCLC Model, single IV]  
10 mpk (DXd, NxT3, iNxT1), 5 mpk (mDUBA)

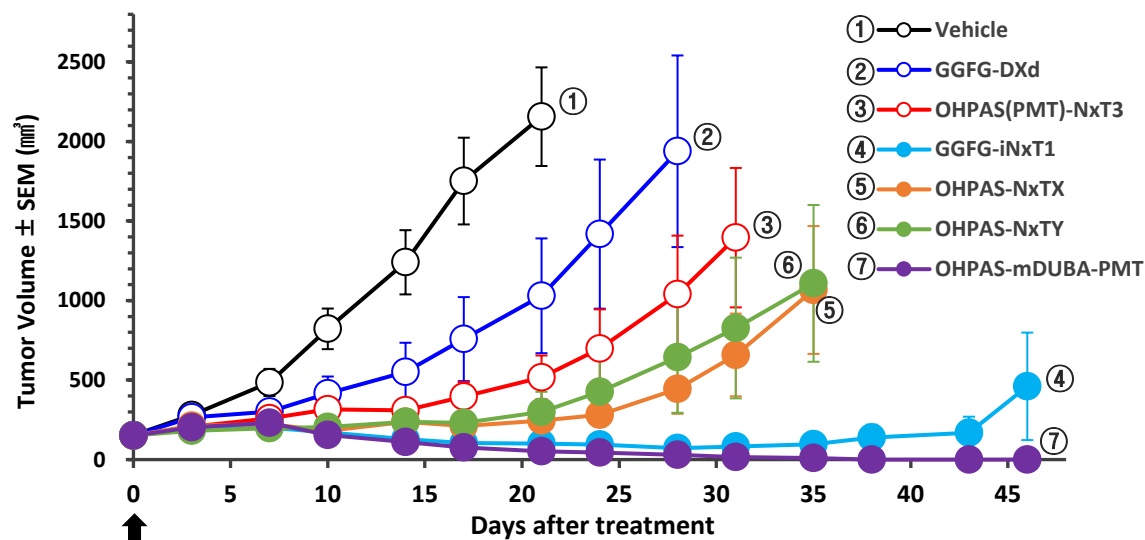


| Linker-Drug     | DAR | IC <sub>50</sub> ± SD (nM) |                   |                        |                         |
|-----------------|-----|----------------------------|-------------------|------------------------|-------------------------|
|                 |     | MDA-MB-468,<br>TNBC        | NCI-H23,<br>NSCLC | MDA-MB-468<br>/NCI-H23 | NCI-N87 (-),<br>Stomach |
| GGFG-DXd        | 7.5 | 0.08 ±0.04                 | 34.7 ±6.85        | 1431 / 5               | 115 ±10.4               |
| OHPAS(PM)-NxT3  | 7.8 | 0.20 ±0.08                 | 0.84 ±0.64        | 207 / 8                | 37.9 ±16.2              |
| GGFG-iNxT1      | 7.9 | 0.07 ±0.01                 | 22.4 ±4.85        | 868 / 3                | 61.3 ±17.9              |
| BS-OHPAS-mDUBA  | 3.9 | 0.002 ±0.000               | 0.44 ±0.11        | 6895 / 36              | 16.0 ±0.21              |
| IAA-OHPAS-mDUBA | 3.7 | 0.006 ±0.002               | 4.03 ±2.57        | 6262 / 16              | 62.6 ±6.30              |

# NxTs & iNxTs Work Well with Other Targets as Well

## In Vivo Efficacy of DLL3 ADCs

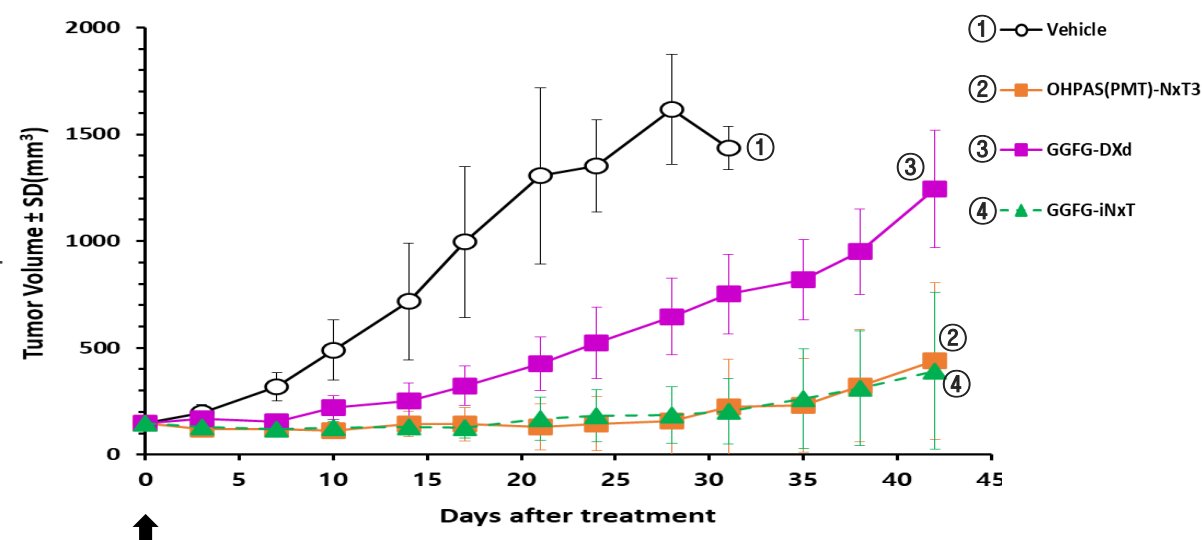
[SHP-77, SCLC Model, 1 mpk, single IV]



| Linker-Drug     | DAR | IC <sub>50</sub> ± SD (nM) | TGI(%), DAY21 | Rank |
|-----------------|-----|----------------------------|---------------|------|
| GGFG-DXd        | 8   | 4.61 ± 0.99                | 56            | 6    |
| OHPAS(PMT)-NxT3 | 8   | 0.06 ± 0.05                | 82            | 5    |
| GGFG-iNxT1      | 8   | 0.002 ± 0.00               | 102           | 2    |
| OHPAS-NxTX      | 8   | 0.003 ± 0.00               | 95            | 4    |
| OHPAS-NxTY      | 8   | 0.02 ± 0.03                | 93            | 3    |
| OHPAS-mDUBA-PMT | 4   | 0.001 ± 0.00               | 105           | 1    |

## In Vivo Efficacy of PSMA ADCs

[C4-2, Prostate Model, 5 mpk, single IV]



| Linker-Drug     | DAR | IC <sub>50</sub> ± SD (nM) | TGI(%), DAY21 | Rank |
|-----------------|-----|----------------------------|---------------|------|
| OHPAS(PMT)-NxT3 | 8   | 0.24±0.07                  | 101           | 1    |
| GGFG-DXd        | 8   | 3.42±1.54                  | 76            | 3    |
| GGFG-iNxT1      | 8   | 0.14±0.02                  | 98            | 2    |

04

Pipelines

Pipeline Overview

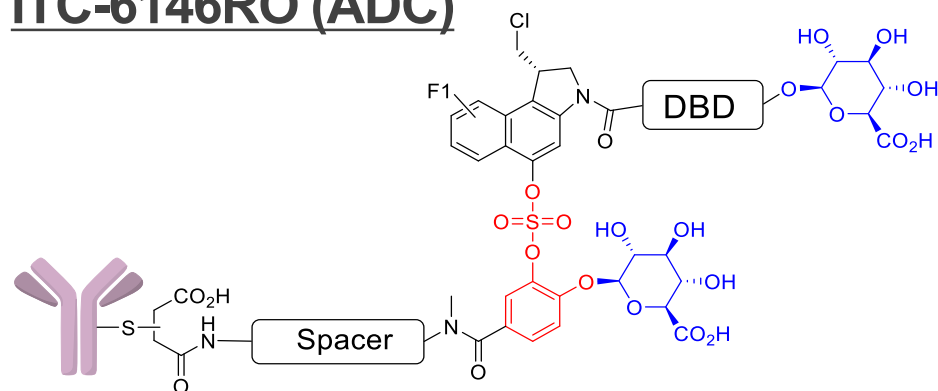
IntoCell Pipeline

| Target    |               | ADC Lead Optimization | ADC Lead Validation                                    | Preclinical Development | Clinical Development                                                             |
|-----------|---------------|-----------------------|--------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------|
| B7-H3 ADC | Solid Cancers |                       |                                                        |                         | <div>KDDF</div> <div>IND Approved (MFDS, 2025)<br/>IND Cleared (FDA, 2025)</div> |
| 5T4 ADC   | Solid Cancers |                       |                                                        |                         |                                                                                  |
| DLL3 ADC  | Solid Cancers |                       |                                                        |                         |                                                                                  |
| HER3 ADC  | Solid Cancers |                       | <div>KDDF</div> <div>KDDF funded PJT * (ongoing)</div> |                         |                                                                                  |
| PSMA ADC  | Solid Cancers |                       |                                                        |                         |                                                                                  |

Collaboration Pipeline

| Target      |               | ADC Lead Optimization | ADC Lead Validation | Preclinical Development | Clinical Development |
|-------------|---------------|-----------------------|---------------------|-------------------------|----------------------|
| Undisclosed | Solid Cancers | Undisclosed           |                     |                         |                      |
| Undisclosed | Solid Cancers |                       |                     |                         |                      |
| Undisclosed | Solid Cancers |                       |                     |                         |                      |

## ITC-6146RO: anti-B7-H3 ADC

ITC-6146RO (ADC)

B7-H3 mAb

+

OHPAS™

+

PMT™

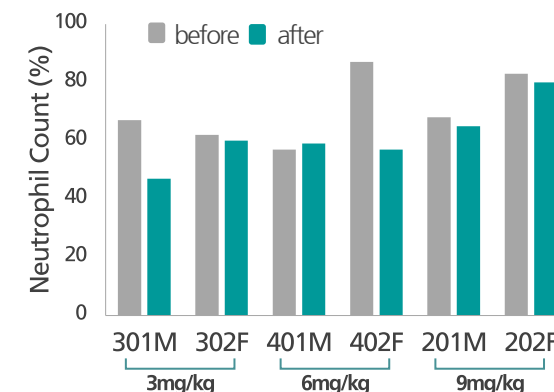
- Promising B7-H3 ADC with broad applicability across solid tumors, particularly in lung, breast, and prostate cancer indications

in vivo efficacy in CDX model <sup>1)</sup>

| Cell line | Cancer Types | Day | TGI     |
|-----------|--------------|-----|---------|
| Calu-6    | Lung         | 24  | 107.24% |
| JIMT-1    | Breast       | 46  | 107.88% |
| PC-3      | Prostate     | 14  | 109.23% |

(+ 2 PDX models)

## Result of NHP



- No neutropenia observed, unlike other ADCs

Expectation

Best-in-class safety and stability profile supports strong commercial potential versus competing ADCs

Plan

| 2025         |    |     |    | 2026    |    |    |    |
|--------------|----|-----|----|---------|----|----|----|
| 1Q           | 2Q | 3Q  | 4Q | 1Q      | 2Q | 3Q | 4Q |
| Pre-Clinical |    | IND |    | Phase I |    |    |    |

- IND approved (MFDS): Dec. 2025
- IND Cleared (FDA): Nov. 2025

1) ITC-6146RO single-dosing per cell line: 3 mg/kg (Calu-6), 4 mg/kg (JIMT-1, PC-3)

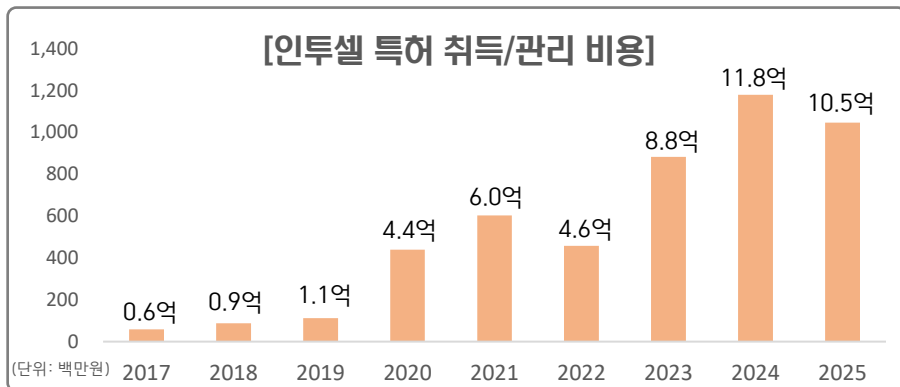


# IntoCell IP Strategy

- 01. 인투셀 특허 현황 및 전략
- 02. 다양한 특허군으로 특허 방어
- 03. 특허 ISR 보고서에 대한 대응

## 차별화된 특허 전략

- ① 선 USP 출원 후 PCT 진입 전략
  - 미국 가출원제도 장점 적극 활용
- ② 중요도에 따른 출원국 숫자 조정
  - 핵심특허: US 포함 15여 개국
  - 비핵심특허: US, CN, JP, India 등 5~6개국
- ③ 전문가 위주의 IP 팀
  - 특허 담당 임원 1명
  - 특허사무소 경력 팀장, 실무 경력 팀원 구성
- ④ 특허 포트폴리오 구성에 과감한 투자
  - 연간 6~8억원 특허비용 소요 (최근 >10억원)



## 특허 현황

- 원특허 12개 / 개별국 기준 총 100개
- 등록 특허 32개 (등록 결정된 특허 포함 시 35건)

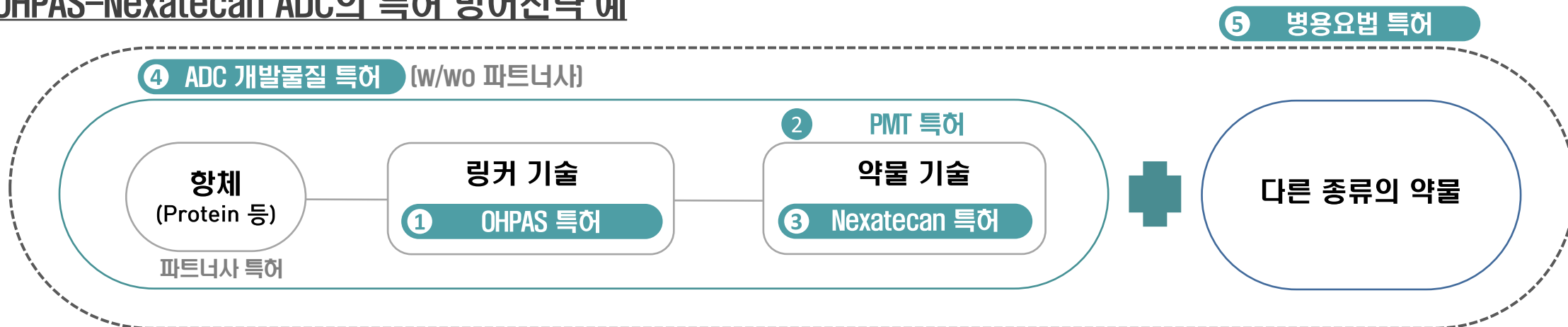
[2025년 9월 기준]

| No. | 기술 구분              | 출원번호            | 출원/등록 현황                  |
|-----|--------------------|-----------------|---------------------------|
| 1   | OHPAS Linker       | 16/628,482      | 출원: 15개국 / 등록: US 등 8개    |
| 2   | extended OHPAS (1) | 17/419,030      | 출원: 12개국 / 등록: JP 등 2개    |
| 3   | extended OHPAS (2) | 17/419,435      | 출원: 7개국 / 등록: JP 등 2개     |
| 4   | BGal SIG           | 16/472,983      | 출원: 5개국 / 등록: US 등 5개     |
| 5   | BD 약물 (1)          | 16/425,237      | 출원: 13개국 / 등록: US 등 8개    |
| 6   | BD 약물 (2)          | 17/289,545      | 출원: 13개국 / 등록: EU 등 6개    |
| 7   | AgDC (PMT)         | 18/084,739      | 출원: 6개국 / 등록 심사중          |
| 8   | AMA                | 17/781,467      | 출원: 3개국 / 등록 심사중          |
| 9   | B7-H3 ADC (PMT)    | 17/358,306      | 출원: 13개국 / 등록: US 1개      |
| 10  | Nexatecan          | 19/002,904      | US 출원 및 PCT 출원 (개국 진입 예정) |
| 11  | iso-Nexatecan      | 63/836,941      | US 가출원                    |
| 12  | PNU                | 10-2025-0101218 | KR 가출원                    |

\* 출원번호는 US 특허 기준 (PNU 제외)

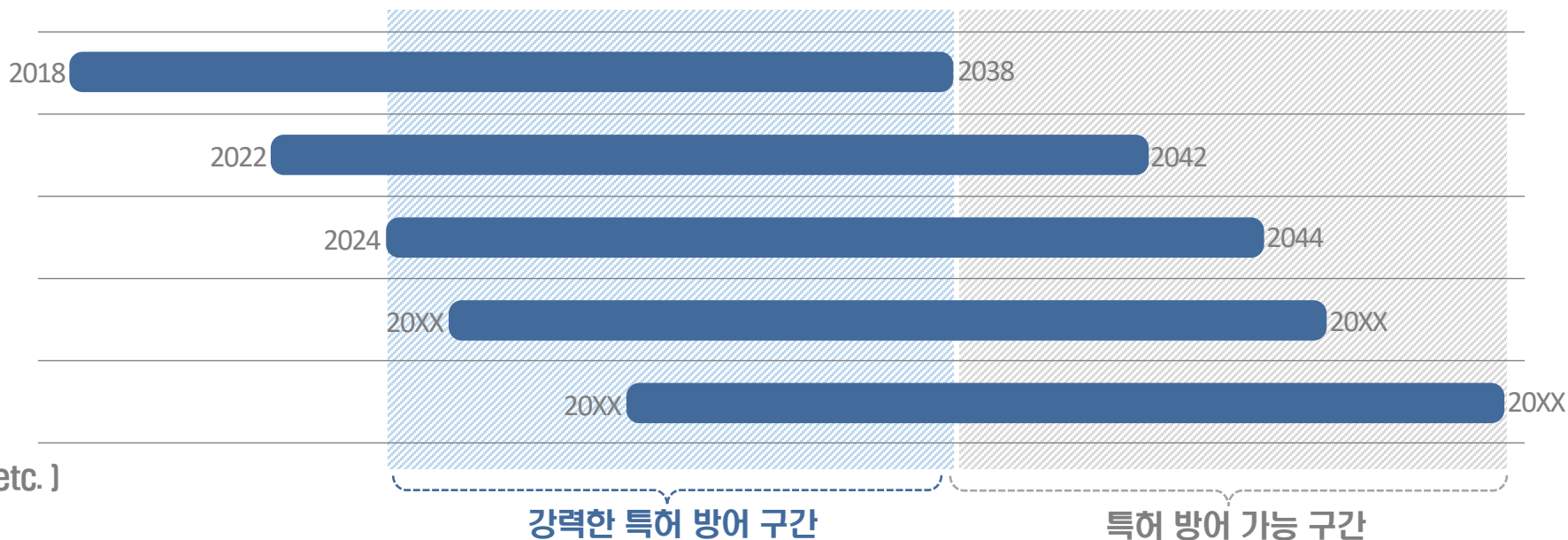
## 02 다양한 특허군으로 특허 방어

### OHPAS-Nexatecan ADC의 특허 방어전략 예



- ① OHPAS 특허
- ② PMT 특허
- ③ Nexatecan 특허
- ④ ADC 개발물질 특허
- ⑤ 병용요법 특허

[+ 공정특허, + formulation 특허, etc.]



## ISR (International Search Report)

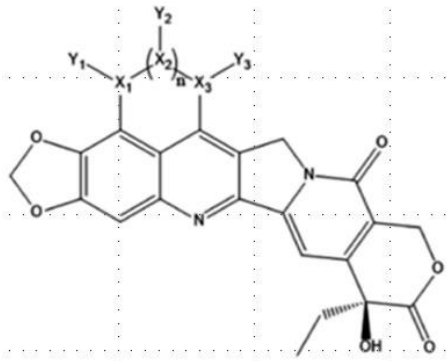
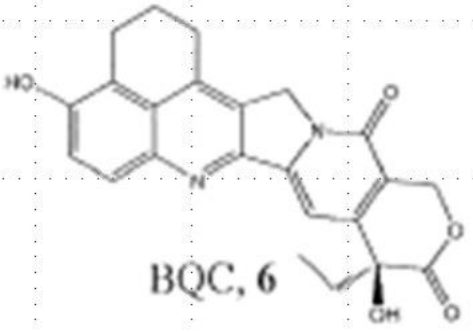
- PCT 국제출원 이후, 지정된 국제조사기관(ISA, International Searching Authority)이 작성하는 보고서
- 출원된 발명의 특허성(신규성, 진보성 등)을 조기에 평가하여 출원인이 개국 진입 등 후속 절차를 준비하는데 도움주기 위한 것

## Nexatecan 특허 관련 ISR의 제시 문헌과 대응방안

A: prior art - 유사 또는 동일 기술 공개 의미

X: prior art, but not patentable - 신규성, 진보성 부정할 정도는 아니나 유사 기술 존재 의미

Y: prior art and negates patentability - 특허 받을 정도의 차별성을 갖지 못한다는 의미

| kr20230149767a_p                                                                                  | us20130012467a1p                                                                                            | Wowo17_120190a1p                                                                     |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  <p>X, Y, A</p> |  <p>BQC, 6</p> <p>X</p> | <p>5,6-dihydro-4H-benzo[de]quinoline camptothecin</p> <p>(BQC 물질 구조 제시)</p> <p>X</p> |

- 넥사테칸 특허 구조 중 하나에서 중간체로 사용되는 물질
- 물질 자체로의 개발은 의미가 없는 중간체임
- 향후 개별국 진입 시 권리범위 재설정 계획

- 넥사테칸 특허에 포함된 구조 중 하나와 동일 구조 기재되어 있음
- 그러나, BQC 물질은 특허 만료되어 자유실시 가능한 기술임
- OHPAS 링커 도입을 통해 효능데이터 기반으로 특허화 가능



# IntoCell Vision

## Global Bio-Technology Giant

“2030+, into 10-10”

(인투셀 기술을 적용하여 개발한 신약 10개, 시가총액 10조 원 목표)



OHPAS™ 약물 링커 플랫폼 기술 기반, ADC 시장의  
“ True Game Changer ”



**Thank You**