Worldwide Preclinical Co-Co Alliance for Small Molecule Compounds for Cancer

MAT2A, Pol Theta & Werner Helicase Synthetic

Lethality Targets for Solid Tumors (6/20)

IDEAYA

- \$100M upfront payment
- \$20M eq at next Ideaya public offering
 - Ideays pays early clin dev costs for MAT2A, subject to GSK option
- \$50M option exercise fee for MAT2A
- \$465-485M dev/reg milestones/product
 - \$475M sales milestones/product

Ideaya has option to pay 20% of dev costs for MAT2A & WER to obtain US 50% profit split High Single-digit to Sub-Teen Royalties

GSK has straight license to Pol Theta & WER, plus option to MAT2A



GSK

Worldwide Phase II Co-Co Alliance for Checkpoint Inhibitors to Treat Cancer

Zimberelimab Anti-PD-1, AB154 Anti-TIGIT MAb

- \$200M eq (11.5% OS) @ \$33.54/sh
- Gilead option to buy up to 35% OS at higher of \$33.54/sh or 120% FMV
 - \$400M in R&D funding over 10 yrs
 - \$500M dev/reg milestones AB154
 - \$725M in agg opt-in option payments

Arcus may opt-out of dev after Gilead option(s)

Arcus

50% PS in US if Arcus shares global dev costs

Gilead has option to develop any Arcus I-O compounds at clinical stage



& Add'l Oncology Programs (5/20)

\$175M upfront payment

Gilead

Worldwide Discovery & Co-Development Alliance for Screening of Oncology Targets

SNIPRx Synthetic Lethality Technology for CRISPR Screening of Targets (5/20)

Repare

- \$50M upfront payment
- \$15M warrant converted to eq @ IPO
- Repare pays dev costs thru validation
 - \$176M in dev/reg milestones/target
 - \$125M in sales milestones/target

Bristol-Myers

High Single-digit To Low Doubledigit Royalties

ROFN to add'l Repare compounds



Worldwide Phase II Co-Co Alliance for Oral Compound to Treat B Cell Malignancies

ME-401 Phosphatidylinositol 3-Kinase Delta Inhibitor for Lymphoma (4/20) \$100M upfront payment Kyowa Kirin MEI Pharma Equal sharing of US dev costs; KKC pays all ex-US dev costs •\$582.5M in agg milestones 50% PS in US & MFI books US sales and Teen royalty in MEI licensed Japan rights has US co-promotion **ROW** to Kyowa Kirin in 10/18



Worldwide Discovery Alliance for Novel Cell Therapy to Treat Cancer

Induced Pluripotent Stem Cell Platform for CAR

Fate Therapeutics

T-cell & NK Therapy (4/20)

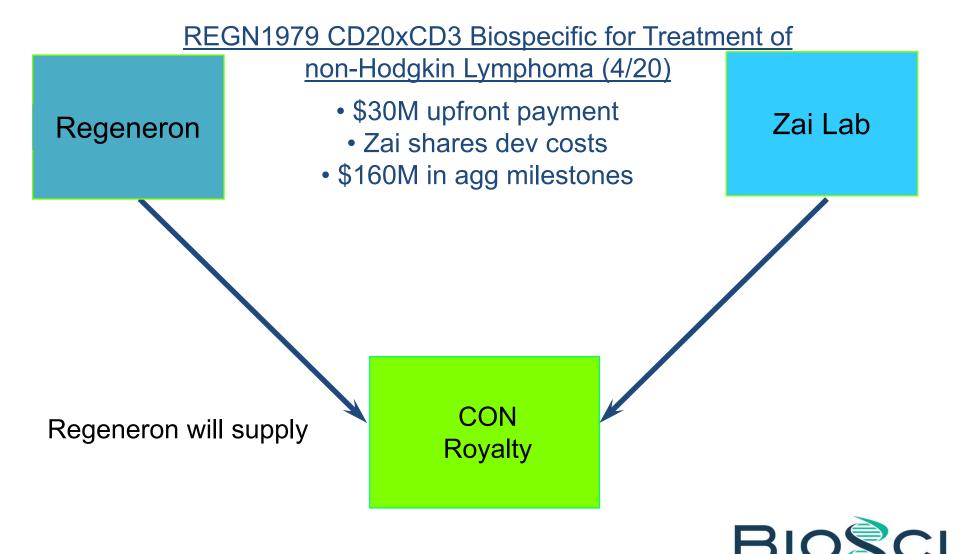
- \$50M upfront payment
- \$50M eq @ \$31/share
- Janssen pays all R&D cost thru INDenabling studies
- \$600M dev/reg milestones 1st target
- \$406M dev/reg milestones each 2nd 4th
 - \$1.2B in agg sales milestones

Fate may opt-in for US codev and 50% PS for CON share of clinical costs

Double-digit to Mid-Teen Royalties Janssen



Regional Phase II Co-Development Alliance for Bispecific Antibody to Treat Lymphoma in Greater China



Worldwide Discovery Alliance with Co-Co Option for CD3 Bi-specific Antibody Compounds for Cancer

CytomX

Probody CD3 Bi-specific Antibodies for Treatment of Cancer (3/20)

- \$80M upfront payment
- \$10M in initial FTE reimb over 5 yrs
 - Astellas pays all R&D costs
 - \$1.6B in agg milestones

Astellas

*CytomX has option to share CON % of US dev costs, PS & details if elected prior to 1st pivotal trial

High Single-digit to Mid-Teen Royalties*

Astellas has rights to 3 add'l Targets to add to CD3, plus ROFR for 2 more Targets for add'l fee



Worldwide Discovery & Co-Dev Alliance for Peptide Therapeutics to Four Immuno-Oncology Targets

Bicyclic Peptide Platform for Novel Immuno-

Oncology Compounds (2/20)

\$30M upfront payment

Bicycle

Therapeutics

- Bicycle pays for initial efforts with respect to four targets
- \$10-20M expansion fee for add'l targets
 - GNE pays all subsequent dev costs
- \$200M in Dev/Reg milestones/program
 - \$200M in sales milestones/program

Genentech

Mid-Single to Low Double-Digit Royalties



Worldwide Discovery & Co-Co Alliance for Stem-Cell Derived CAR-Ts & TCRs to Treat Cancer

Stem-Cell Derived Allogeneic T-Cell Therapy for

Treatment of Cancer (1/20)

Adaptimmune

- \$50M upfront payment
- Astellas pays dev costs thru Ph I
 - \$7.5M in sponsored R&D/yr
- \$147.5M in Dev/Reg milestones per unilateral product (or 50% if co-dev*)
- \$110M in sales milestones/unilateral product

Astellas

*Adaptimmune has co-co option for 50% cost & profit sharing after Ph I

Mid-Single to Mid-Teen Royalty Adaptimmune in-licensed technology from Universal Cells in 11/15; UC was acquired by Astellas in 2/18



Regional Phase III & Preclinical License for Compounds to Treat Hematologic Malignancies in Greater China

<u>Uproleselan & GMI-1687 E-selectin Inhibitors for</u>

Acute Myeloid Leukemia (1/20) • \$9M upfront payment **GlycoMimetics** Apollomics pays all China dev costs \$35M in Dev/Reg milestones for Uproleselan \$40M in Dev/Reg milestones for GMI-1687 \$105M in aggregate sales milestones **High Single Digit** GlycoMimetics shall to 15% Royalties supply

Apollomics



Worldwide Phase I Alliance & License Option for VISTA Pathway Antagonists to Treat Cancer

CI-8993 Anti-VISTA Monoclonal to Treat Solid Tumors (1/20)

ImmuNext

- \$1.25M upfront payment for option
- \$750K/yr maintenance fee during 4 yr option period & R&D reimb by Curis
 - Curis pays all clinical dev costs
 - \$20M on license option exercise
 - \$88.9M dev/reg milestones
 - \$125M in sales milestones

High Single Digit to Low Double Digit Royalty

Curis



Worldwide Phase III Co-Co Alliance for Monoclonal Antibody to Treat Cancer

MOR208 Tafasitamab Anti-CD19 MAb for

Treatment of B Cell Malignancies (1/20)

MorphoSys

- \$750M upfront payment
- \$150M equity @ 20% premium
- MorphoSys pays 45% of US/global dev costs; Incyte pays for ROW
 - \$545M in Dev/Reg milestones in oncology plus \$205M in Dev/Reg milestones in autoimmune
 - \$315M in sales milestones

MorphoSys will price & book sales in US & will detail 50% of calls in Germany for payment per Detail

US PS 50/50; Mid-Teen to Mid-Twenties Royalty In ROW Incyte



Regional Phase II/III License of Orally Absorbed Cancer Compounds in Greater China

Oral Paclitaxel, Oral Irinotecan, & Tirbanibulin ointment for

treatment of cancer (12/19) • \$30M upfront payment Athenex Athenex pays CON share of dev costs Xiangxue • \$110M in Dev/Reg milestones • \$40M in sales milestones Low Teens to Low Twenties Royalty



Worldwide Discovery & Co-Development Alliance for mRNA-encoded Antibodies to Treat Cancer

CureVac

mRNA-based Antibody Therapeutics for Treatment of Cancer (12/19)

- \$10M upfront payment
 - \$22.2M eq (€20M)
- CureVac shares dev costs up to IND
- \$280M in agg milestones 1st product

Genmab

Mid-Single to
Low Double-digit
Royalties

Genmab has 5 yr option for three add'l mRNA products for \$275-368M in agg milestones/product



Regional NDA-Filed Co-Co Alliance for Compound to Treat Small Cell Lung Cancer in US

<u>Lurbinectedin for Treatment of Small Cell Lung</u>

Cancer (12/19)

PharmaMar

- \$200M upfront payment
- PharmaMar pays for SCLC trial & any SCLC post-approval commitments
 - \$250M in Dev/Reg milestones 1st
- CON milestones for add'l indications*
 - \$550M in sales milestones

Jazz Pharmaceuticals

PharmaMar to supply;
PharmaMar has US
co-promotion option if
Jazz CoC or fails to
meet sales targets

High-Teen to 30% Royalty

*Jazz option to share dev cost of add'l indications or pay add'l milestones



Worldwide Phase I Co-Development Alliance for Inhaled Kinase Inhibitors to Treat COPD & Lung Cancer

RV1162 iSPERSE Inhaled Delivery of Narrow Spectrum

Kinase Inhibitor for COPD (12/19)

Pulmatrix

- \$7.2M upfront payment
- Pulmatrix pays for Ph I in COPD
 - J&J pays \$3.4M for tox study
- J&J pays all dev costs post-option
- \$14M on license option exercise
 - \$34M in Dev/Reg milestones
 - \$45M in sales milestones

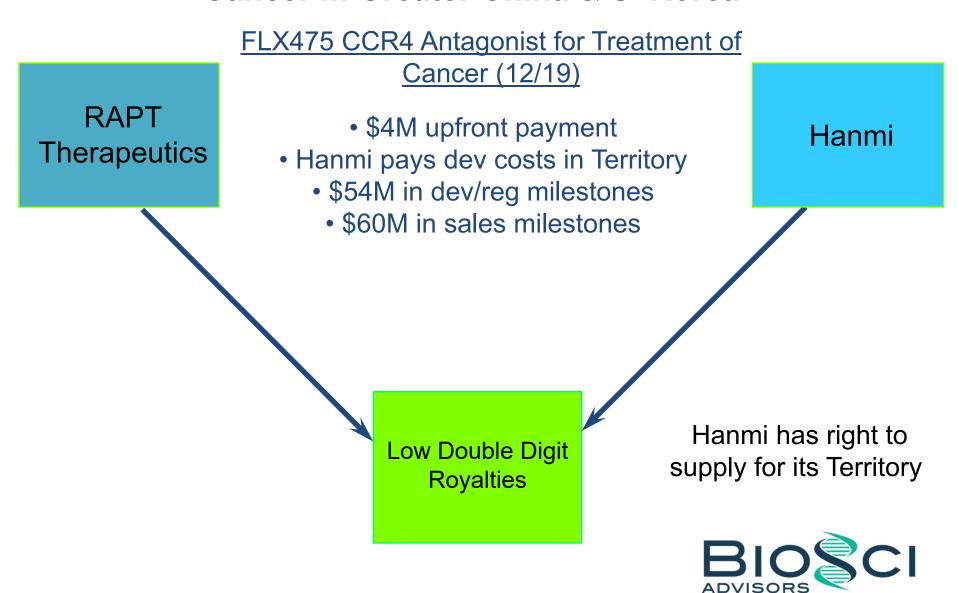
Respivert, a Janssen subsidiary, licensed IP to Pulmatrix in 6/17 that's now being licensed to J&J

1% to 2% Royalty

Johnson & Johnson

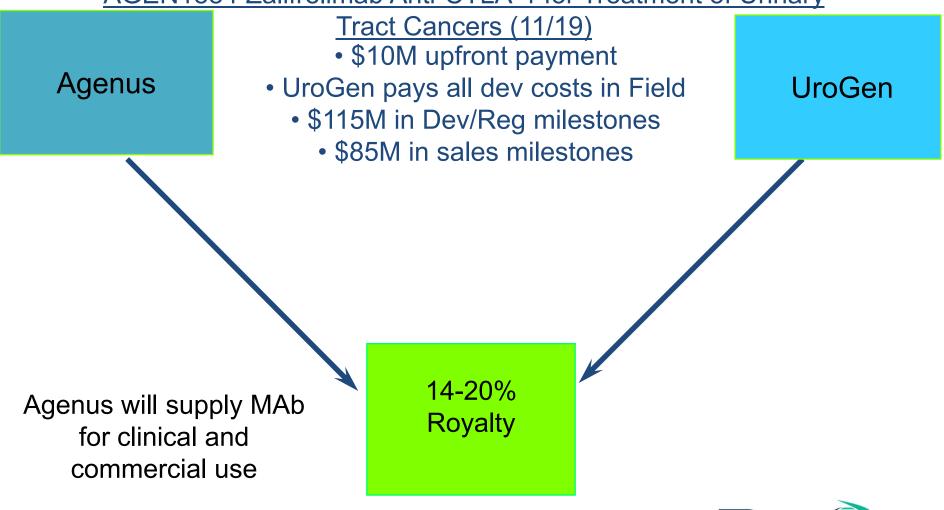


Regional Phase I License for Oral Small Molecule to Treat Cancer in Greater China & S. Korea



Regional Phase II License of CTLA-4 MAb for Use with UGN-201 to Treat Urinary Cancer Ex-Latin America

AGEN1884 Zalifrelimab Anti-CTLA-4 for Treatment of Urinary





Worldwide Preclinical Co-Development Option for Trispecific T Cell Engager Compound to Treat Cancer

HPN217 TriTAC Targeting B-Cell Maturation Antigen for Treatment

Harpoon Therapeutics

of Multiple Myeloma (11/19)

- \$30M upfront payment
- Harpoon pays dev costs thru first
 Ph I/II clinical trial
- \$50M dev milestone Ph I/II start
- \$200M on license option exercise
- AbbVie pays dev costs post-option
 - \$230M in aggregate milestones

High Single Digit to Low Double Digit Royalty

AbbVie



Worldwide Discovery Co-Dev Alliance for Conditioning Regimen to Enhance Stem Cell Transplants

Engineered Toxin Body Platform to Enhance Gene Editing Therapy for

Molecular Templates Sickle Cell & Beta Thalassemia (11/19)

- \$23M upfront plus \$15M equity
- MTEM pays R&D on Initial Target
- Vertex pays dev costs post-option & for R&D on 2nd target
- \$22M on add'l target option exercise
- \$180M in dev/reg milestones/target
 - \$70M in sales milestones/target

Mid-Single Digit Royalty Vertex



Worldwide Discovery & Co-Development Alliance for Allogeneic Cell Therapy to Treat Hematologic Cancer

AlloCar Induced Stem Cell Therapeutics for B-Cell

Notch Therapeutics Malignancies & Multiple Myeloma (11/19)

- \$10M upfront payment
- \$5M eq for 25% of Notch OS shares
- Allogene pays R&D costs over 5 yrs
- \$7.25M in research, \$4M in dev milestones, plus \$CON clinical/regulatory
 - \$294M in agg milestones/target

Allogene

Mid to High Single-digit Royalties



Regional Co-Dev Alliance for Approved & Development Stage Oncology Compounds in China

Xgeva Denosumab, Kyprolis Carfilzomib & Blincyt Blinatumomab

Amgen

- for Treatment of Cancer (10/19)
 \$2.8B equity investment by Amgen for 20.5% of OS BeiGene shares
- BeiGene pays share of dev costs for Pipeline Products, up to \$1.25B cap

BeiGene

Amgen sets Baseline
Price for all Products &
pays a royalty to BeiGene
for Pipeline Product sales
in ROW

50/50 Profit Split BeiGene has 5 yr commercialization rights for In-Line Products & 7 yrs for Pipeline Products*

* BeiGene has option to retain 1 In-Line & several Pipeline Products for add'l term



Worldwide Preclinical Co-Development Alliance for Combination T-Cell Compounds to Treat Cancer

PRIME Technology for Co-expression of IL-7 and

Noile-Immune CCL19 to Treat Solid Tumors (8/19)

- \$2.5M upfront payment
- Each party pays its own dev costs
- Adaptimmune pays all dev costs after license option on a target-by-target basis
 - \$312M in agg milestones

Adaptimmune

Mid Single-digit Royalties



Worldwide Preclinical & Discovery Alliance for Six Small Molecule Compounds to Treat Cancer

CDK7 Small Molecule for Treatment of Cancer (7/19)• \$17.5M upfront payment **Exelixis** Aurigene • \$32.6M in dev costs by Exelixis • \$10-12M on license exercise at IND • \$148.8M in dev/reg milestones/program • \$280M in sales milestones/program CON Royalties



Worldwide Phase II License for Biologic to Treat Cancer in Combination with Chemotherapy

DSTAT Glycosaminoglycan for Treatment of Acute Myeloid Leukemia (7/19) \$30M upfront payment Cantex Chimerix • \$35M in Chimerix equity (10M shares) Chimerix pays all dev costs \$202M in dev/reg milestones • \$385M in sales milestones 10% to High-Teen Royalty



Regional Phase I Co-Dev Alliance for Monoclonal Antibody to Treat Cancer in Greater China

Enoblituzumab Anti-B7-H3 MAb for Treatment of

Cancer (7/19) \$15M upfront payment I-Mab MacroGenics • I-Mab pays dev costs in China & 20% Biopharma of global clinical costs plus CMC • \$175M in development milestones • \$60M in regulatory milestones Mid-Teen to 20% Royalty



Worldwide Discovery Alliance for Protein Degrader Compounds for Cardio, Oncology & Ob/Gyn Diseases

PROTAC Technology for Targeted Protein

Degradation (6/19)

• \$17.5M upfront payment

- \$32.5M eq @ 15% premium to FMV
- \$12M in sponsored R&D thru 2022
 - \$197.5M in dev/reg milestones
 - \$490M in sales milestones

Bayer

Mid Single-digit To Low Doubledigit Royalties

Bayer also committed \$56M to separate JV for agricultural disease resistance



Regional Phase III License of Oral Kinase Inhibitor to Treat Gastrointestinal Stromal Tumors in Greater China

Ripretinib KIT or PDGFRalpha Inhibitor for Treatment of GIST (6/19) • \$20M upfront payment Deciphera Zai pays all dev costs in Territory Zai Lab •\$50M in Dev/Reg milestones • \$135M in sales milestones Deciphera supplies bulk Low Teen to Compound for packaging High Teen by Zai Royalties

Worldwide Preclinical License Option for Next Generation CD38 Antibody for Cancer

HexaBody-CD38 for Treatment of Multiple
Myeloma & B-cell Lymphoma (6/19)

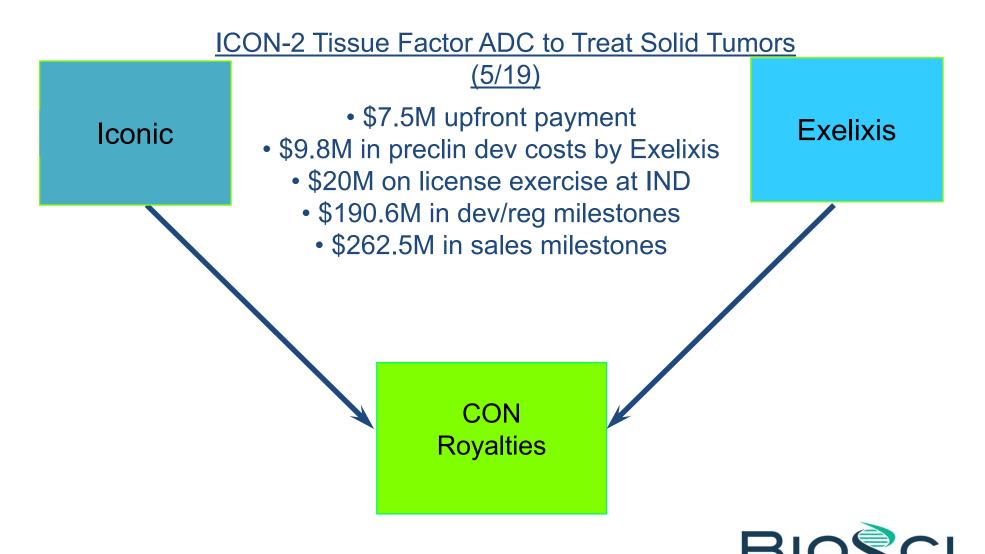
- Genmab
- Genmab pays all dev costs thru POC
 - \$150M option exercise fee
- Janssen pays all costs post-exercise
 - \$125M in dev/reg milestones

Genmab developed
Darzalex HuMax-CD38
with Janssen via 8/12
alliance

20% Royalty thru 2031, then 13-20% thereafter Janssen



Worldwide Preclinical Alliance for Antibody-Drug Conjugate to Treat Cancer



Regional Phase III Alliance for Humanized Antibody to Treat Hematologic Cancer & Autoimmune Diseases in Greater China

Inebilizumab Anti-CD17 for Treatment of Neuromyelitis (5/19)

Viela Bio

- \$15M upfront plus \$5M in 6 months
- Hansoh pays dev costs in Greater China
 - \$2-5M in dev/reg milestones 1st
 - \$18M dev/reg milestones add'l
 - \$180M in sales milestones

Hansoh

Low Double-digit
To Upper Teen
Royalties

Hansoh has opt-in to codevelop for certain indications in Territory



Regional Phase III License of Antibody Conjugate to Treat Cancer in Greater China, S. Korea & ASEAN

Sacituzumab Govitecan ADC Targeting Trop-2 for

Immunomedics

Breast & Solid Tumors (4/19)

- \$65M upfront payment
- Everest pays all dev costs that are specific to Territory & Immunomedics pays all global development costs
 - •\$60M on FDA approval
- \$180M in add'l dev/reg milestones
 - \$530M in sales milestones

Immunomedics will supply for Manu Cost plus CON %

14% to 20% Royalties Everest Medicines



Worldwide Discovery Alliance for Bispecific Antibody to Treat Cancer

Bispecific Fc Technology for Undisclosed Oncology Target (4/19) • \$15M upfront payment **Astellas** Xencor Astellas pays all dev costs • \$90M in dev/reg milestones • \$150M in sales milestones High Single-digit to Low Doubledigit Royalties



Regional License of Approved Oral Compound for Breast Cancer in Europe, Africa & Mideast

Nerlynx Neratinib for HER2+ Breast Cancer (3/19)

Puma

- \$60M upfront payment
- Add'l \$4M in 11/19 for territory expansion
 - PF pays for add'l indications in territory
 - \$348M in sales & add'l reg milestones

Pierre Fabre

Puma is responsible for commercial supply

Double-digit Royalties

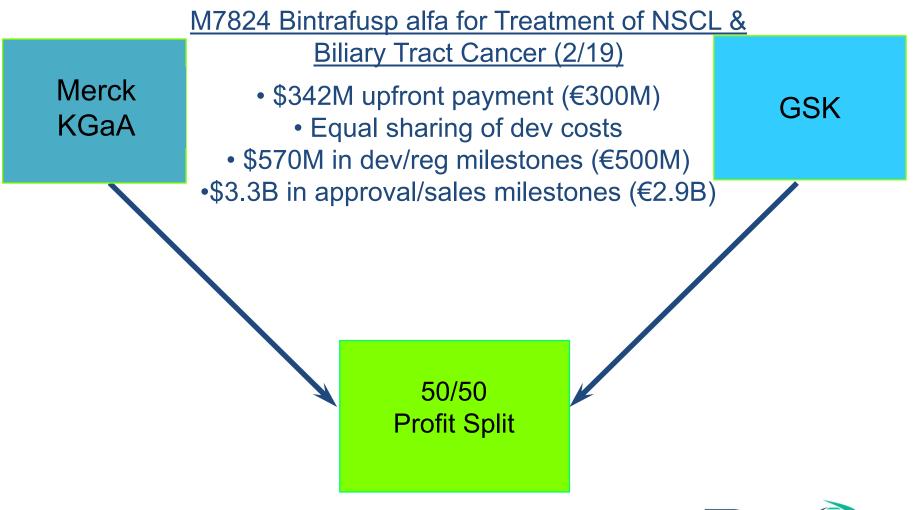
Excludes Russia & Ukraine; expanded 11/19 to Mideast & S. Africa



Regional Phase II Co-Co Alliance for Antibody Conjugate to Treat HER2+ Breast Cancer Ex-Japan

Enhertu Trastuzumab Deruxtecn ADC for HER2+ Breast Cancer (3/19) Daiichi • \$1.35B upfront payment AstraZeneca Sankyo Equal sharing of dev costs • \$125M on US approval • \$3.675B in add'l regulatory milestones •\$1.75B in sales milestones 50/50 Daiichi books sales in **Profit Split** the US & certain EU; Daiichi supplies

Worldwide Phase II Co-Co Alliance for Bifunctional Fusion Protein to Treat Cancer





Regional Phase II Co-Dev Alliance for Oral Compound to Treat Pancreatic Cancer in Greater China & Singapore

RX-3117 Nucleoside for Treatment of Pancreatic Cancer (2/19)

Rexahn

- \$3M upfront payment
- Parties will share dev costs after Initial Studies in Licensed Territory
 - \$126M in dev/reg milestones
 - \$100M in sales milestones

Low Double Digit To Mid-Teen Royalty BioSense

BioSense has ROFN for add'l indications in oncology



Worldwide Preclinical & Discovery Co-Co Alliance for **Bispecific Antibodies for Cancer**

XmAb24306 IL-15 Bispecific Cytokine for Treatment of

Cancer (2/19) Xencor Genentech \$120M Upfront Payment •2 yr research term for add'l IL-15 Abs Xencor pays 100% of Initial Studies & 45% of dev costs after Initial Studies \$160M in dev/reg milestones for each compound \$20M on Phase I start for each add compound **GNE** shall Xencor has option to 45% PS manufacture co-promote in US to Xencor

Worldwide Discovery & Co-Co Alliance for Five Exosome Therapeutics to Treat Cancer

engEx Platform to NRAS, STAT3 & 3 Add'l Cancer Targets (1/19)

Codiak

- \$56M upfront payment
- Codiak pays dev costs thru Ph I trials
 - \$20M in preclinical milestones
- \$200M in Dev/Reg milestones/target

Jazz Pharmaceuticals

Codiak has option for NA co-commercialization & CON profit split for 2 targets

Mid Single-Digit to High-Teen Royalties Four targets identified, with Jazz's option to select an add'l 5th target



Regional Lead Stage Co-Development Alliance for Small Molecule to Treat Cancer in Asia

PolQ Polymerase Theta Inhibitor for Breast & Ovarian Cancer (1/19) \$1M upfront payment (¥110M) Repare Ono • \$13.9M in R&D over 3 yrs (¥1.54B) Each pays clinical dev costs in territory • \$46.5M in dev/reg milestones (¥5.1B) • \$110M in sales milestones (¥12.1B) Ono has rights in Japan, High Single-digit Repare is responsible for S. Korea, Taiwan, Macau to Low Teen commercial supply & ASEAN countries Royalties

