# Building a Premier Oncology Biotech

Dr. Helen Torley, President and CEO

September 2019

# Forward-Looking Statements

All of the statements in this presentation that are not statements of historical facts constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Examples of such statements include possible activity, benefits and attributes of PEGPH20, future product development and regulatory events and goals, anticipated clinical trial results and strategies, product collaborations, our business intentions and financial estimates and results, including projected revenue amounts. These statements are based upon management's current plans and expectations and are subject to a number of risks and uncertainties which could cause actual results to differ materially from such statements. A discussion of the risks and uncertainties that can affect these statements is set forth in the Company's annual and quarterly reports filed from time to time with the Securities and Exchange Commission under the heading "Risk Factors." The Company disclaims any intention or obligation to revise or update any forward-looking statements, whether as a result of new information, future events, or otherwise.

# Two Engines for Growth

## ENHANZE®

Proven 'IV to Sub Q' Partnering Platform

Accelerating Partner Investment for Approvals

High Potential:
~$1B Annual Royalty Revenue Projection in 2027
~$1B in Lifetime Milestones

## PEGPH20

Late Stage Targeted Oncology Asset

Phase 3 Data Readout Currently Projected in Q4 2019

Potential ~$1B Global Pancreas Indication with Additional Pan-tumor Potential

Halozyme

# ENHANZE®

# ENHANZE® Offers Four Potential Paths for Differentiation and Value Creation for Partners

1. **Reduced Treatment Burden and Healthcare Costs**
   - Herceptin HYLECTA™ trastuzumab and hyaluronidase-oysk INJECTION FOR SUBCUTANEOUS USE | 600 mg/10,000 units
   - Herceptin® SC trastuzumab subcutaneous
   - MabThera® SC Rituximab Subcutaneous FAST • EASY • EFFECTIVE
2. **Potential for Competitive Differentiation**
   - *DARZALEX®*
   - *ALXN 1810*
   - *BMS I/O Portfolio*
   - *ARGX-113*
3. **New Intellectual Property and Exclusivity**
   - Herceptin® SC trastuzumab subcutaneous
   - MabThera® SC Rituximab Subcutaneous FAST • EASY • EFFECTIVE
   - *DARZALEX®*
4. **Changing U.S. Reimbursement and Care Landscape**
   - *OPDIVO®*
   - RituxanHYCELA rituximab/hyaluronidase human subcutaneous injection | 1,400 mg/23,400 Units | 1,600 mg/26,800 Units

# ENHANZE® High-Growth Business

**9 Agreements signed to date:**
Roche (Genentech), Baxalta, Pfizer, Janssen, Eli Lilly, Abbvie BMS, Alexion, and argenx

**3 Approved Products**

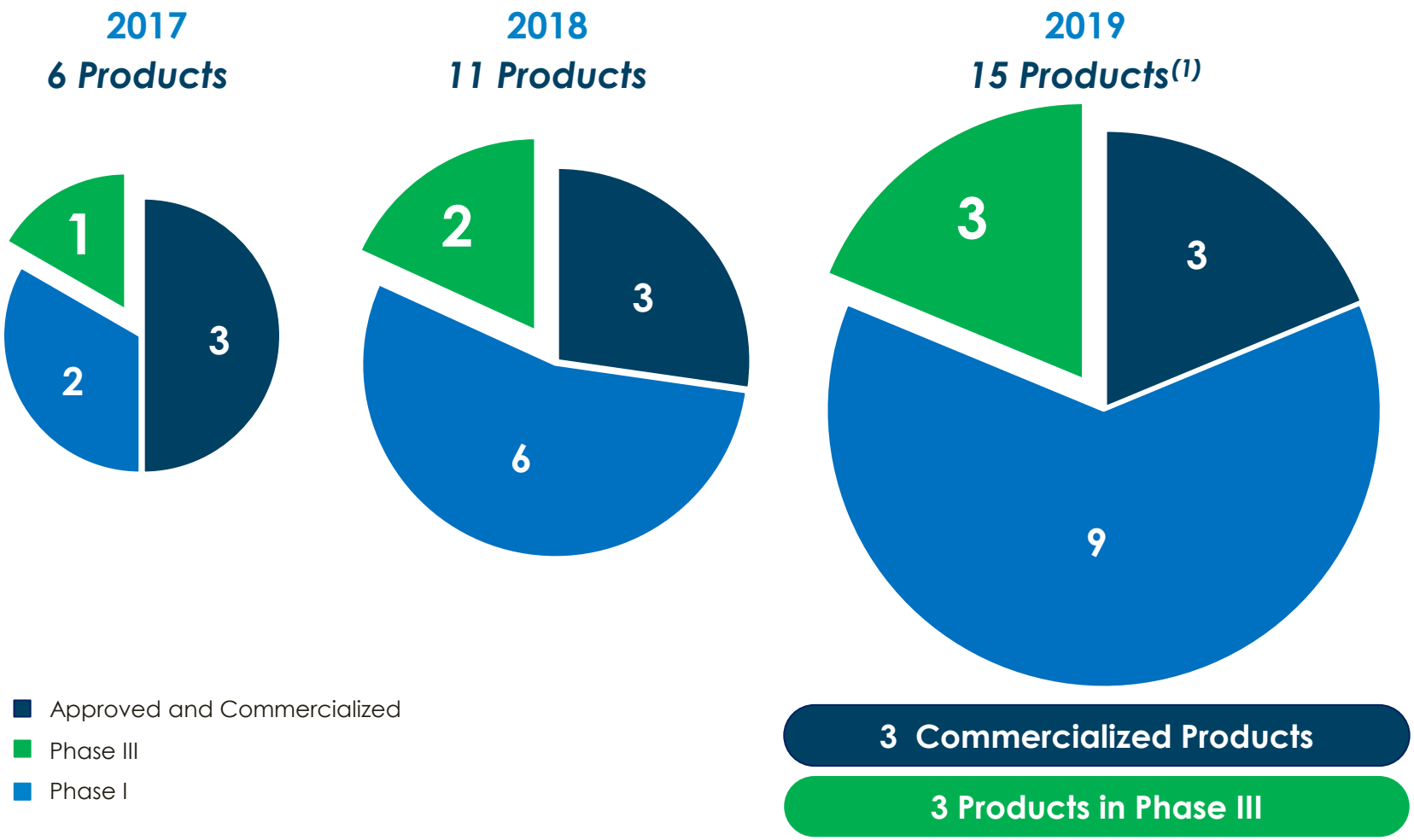
**8 Targets in development today**

**>20 Target slots available to current partners**

## Bristol-Myers Squibb Agreement Terms

| | |
|---|---|
| Number of Targets | 11 |
| Upfront | $105M |
| Milestones/ Target | $160M |
| Royalties | Mid-single digit average across all agreements |

# Near Term Catalysts:
# Project 3 Potential Blockbuster Programs in Phase III in 2019




[1] Projected by year-end as of January 9, 2019

# Three Products Successfully Commercialized in Global Markets

| US | ROW |
| --- | --- |
| HyQvia [Immune Globulin Infusion 10% (Human) with Recombinant Human Hyaluronidase] | HyQvia [Immune Globulin Infusion 10% (Human) with Recombinant Human Hyaluronidase] |
| RituxanHYCELA rituximab/hyaluronidase human subcutaneous injection 1,400 mg/23,400 Units 1,600 mg/26,800 Units | MabThera SC Rituximab Subcutaneous FAST • EASY • EFFECTIVE |
| Herceptin HYLECTA™ trastuzumab and hyaluronidase-oysk INJECTION FOR SUBCUTANEOUS USE I 600 mg/10,000 units | Herceptin SC trastuzumab subcutaneous |

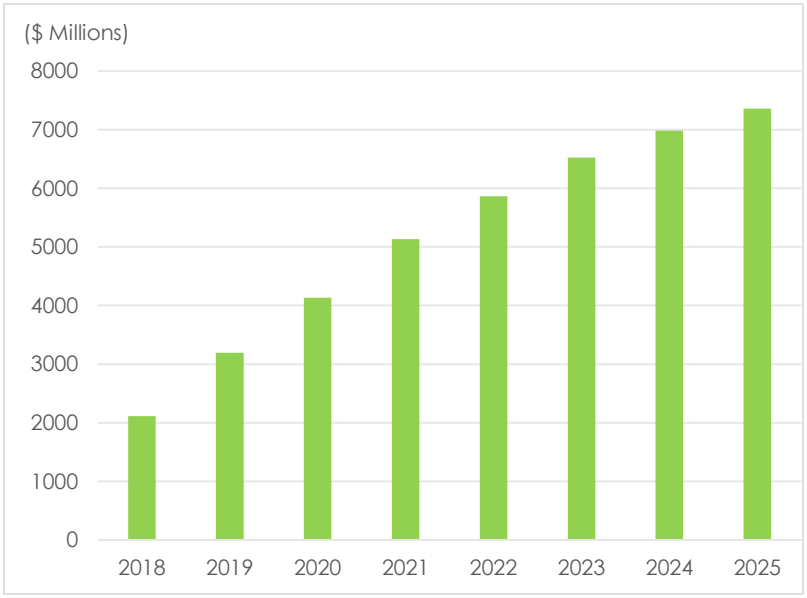
# ENHANZE® Development Pipeline

| | Partner | Product/Target | | |
|---|---|---|---|---|
| Phase III in 2019 | Janssen<br>Undisclosed<br>Roche | DARZALEX®<br>*Regulatory Applications Submitted* | PERJETA® pertuzumab / Herceptin® trastuzumab<br>*Ongoing* | Undisclosed<br>*Initiating* |
| | | | | |
| Phase I in 2019 | BMS ALEXION<br>argenx<br>Lilly Roche | Anti-CD73<br>TECENTRIQ® atezolizumab | OPDIVO®<br>ARGX-113 | ALXN1810<br>Undisclosed |

**PLUS 3 Potential New Phase I Starts in 2019**

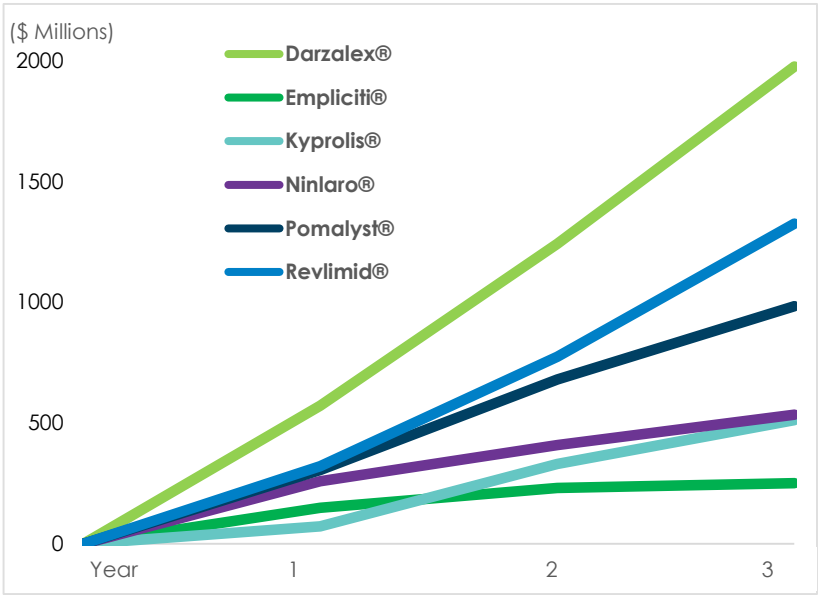
# Daratumumab IV:
## Blockbuster Multiple Myeloma Treatment

### Analyst Estimates for DARZALEX®




Source: Analyst estimates via Nasdaq IR Insight

### Early Launch Data Compares Favorably with Other Multiple Myeloma Drug Launches




Source: Bloomberg, company press releases

**Sell-side analysts estimate >$7 billion in sales by 2025**

# Daratumumab SC Regulatory Path

## Potential Benefits of Subcutaneous Formulation[1]

- **Faster infusion time being tested (3-5 minutes)[2] compared with 4-6 hour IV infusion, initially weekly**
- **Well tolerated with fewer infusion related reactions (IRRs) than with IV[3]**

## BLA/MAA Submissions Made in July 2019 Based on:

- **COLUMBA study in Relapsed and Refractory Multiple Myeloma**
  - **Achieved 2 primary endpoints: non-inferiority in Response Rate and C trough**
- **Phase 2 PLEIADES Study[4]**

## Multiple Ongoing Phase 3 Trials[1] with ENHANZE®

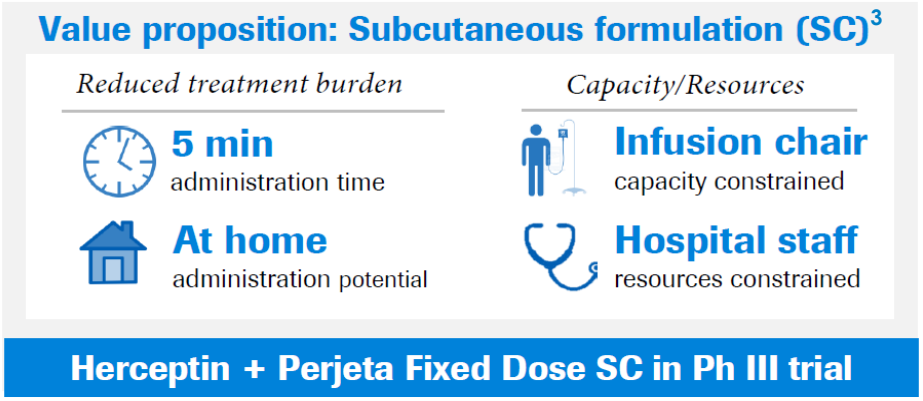
[1] Genmab corporate presentations (Jeffries November 2018, R&D Update and 2018 ASH Data Review December 2018)
[2] Subcutaneous Delivery of Daratumumab in Patients with Relapsed or Refractory Multiple Myeloma Pavo, an Open-Label, Multicenter, Dose Escalation Phase 1b Study (*Blood* 2017)
[3] Subcutaneous Daratumumab in Patients With Relapsed or Refractory Multiple Myeloma: Part 2 Safety and Efficacy Update of the Open-label, Multicenter, Phase 1b Study (PAVO) Ajai Chari et al (ASH December 2018)
[4] Janssen Pharmaceutical Companies' press release dated July 12, 2019

# Perjeta®/Herceptin® Fixed Dose Combination with ENHANZE®: Potential Regulatory Submissions First Half 2020

## Potential Opportunity

- PERJETA® indicated for use with Herceptin® and chemotherapy for adjuvant treatment of patients with HER2+ early-stage breast cancer (EBC) at high risk of recurrence
- Target population size[2]: ~75,000 in US and EU 5
- Strong IV adoption since launch: ~46% share in high risk early breast cancer in U.S.[1]

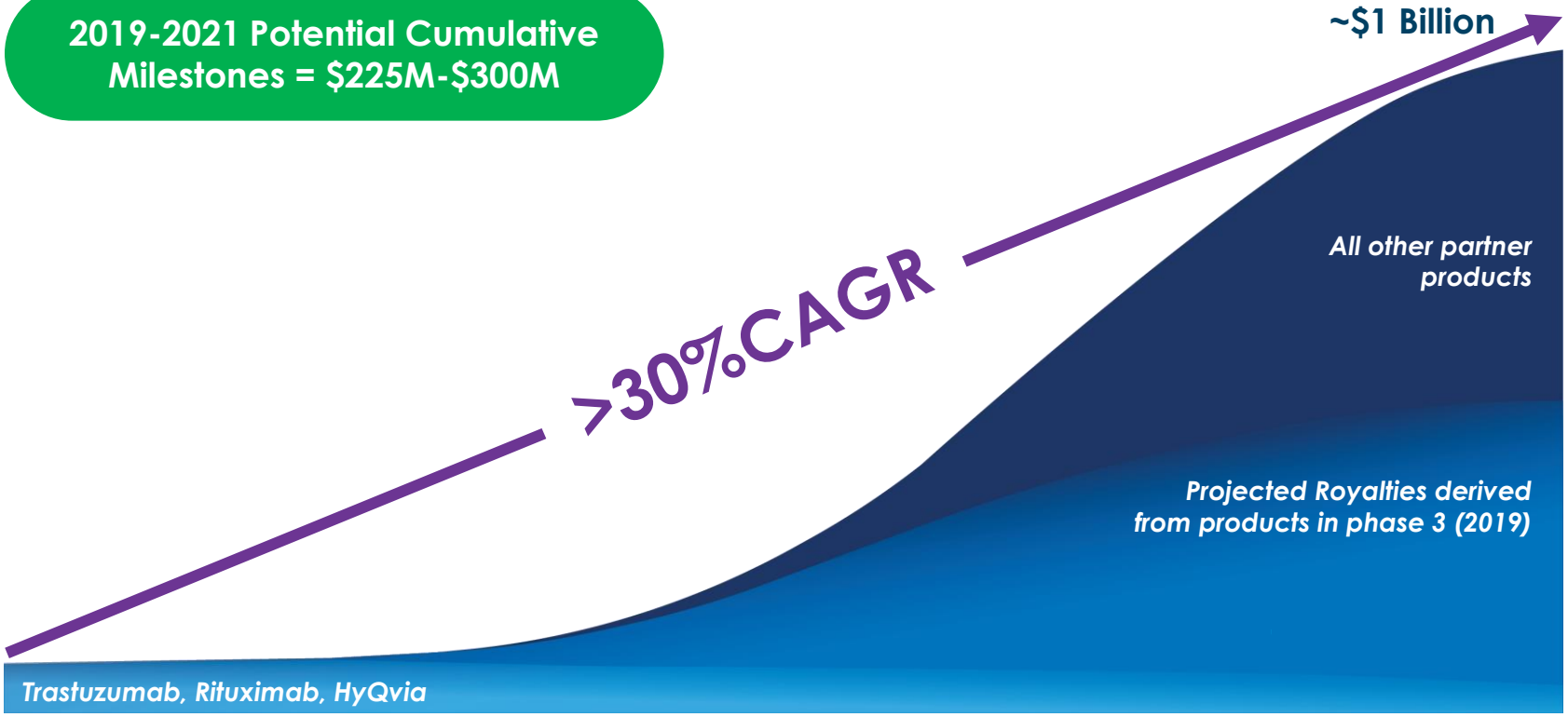
**Value proposition of Perjeta®/Herceptin® Fixed Dose SC with ENHANZE** [3]




[1] Roche twelve-month 2018 results
[2] Roche HY 2019 Update Presentation
[3] Roche Virtual Late Stage Pipeline Event 2018 presentation (September 13, 2019)

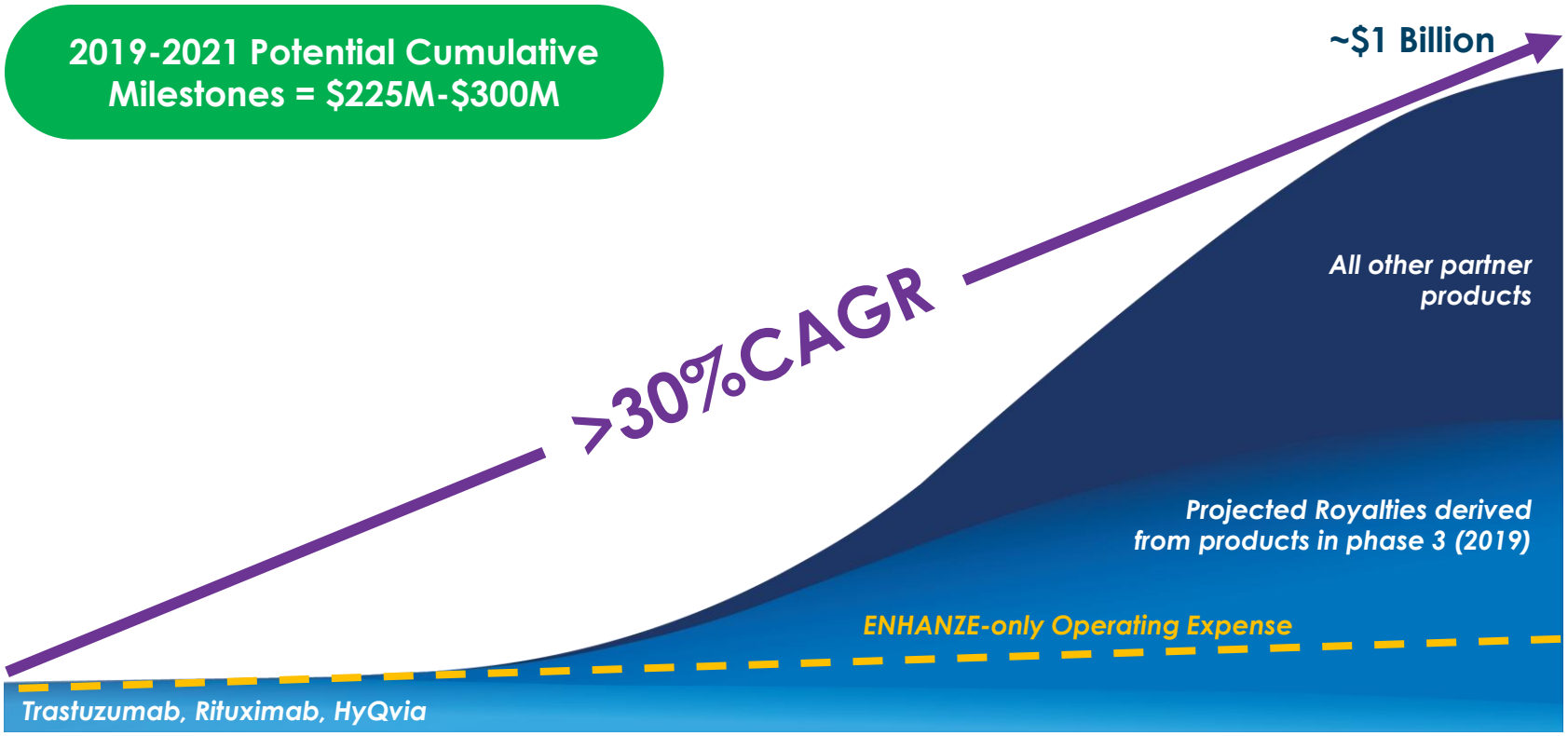
# ENHANZE®:
## ~$1B Royalty Revenue Potential in 2027

**2019-2021 Potential Cumulative Milestones = $225M-$300M**




Projection based on approved products and assumes global approval and launches for 12 additional products in multiple indications. Includes projections for subcutaneous versions of targets not currently approved or commercially available. Innovator revenues based on Bloomberg analyst projections, when available. Conversion rates based on Halozyme internal projections. Royalty revenue projection includes targets selected but not yet disclosed. Projected royalty revenue is not risk–adjusted.

# ENHANZE®:
## Royalties Exceed Pro Forma ENHANZE-only Operating Expenses

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# Accelerating ENHANZE® Growth

**Existing Partnerships**

- New collaboration signed with argenx in 1Q 2019 is first with development-stage biotech
- Daratumumab SC Regulatory Applications Submitted to FDA and MAA
- 12 Targets in Development in 2019

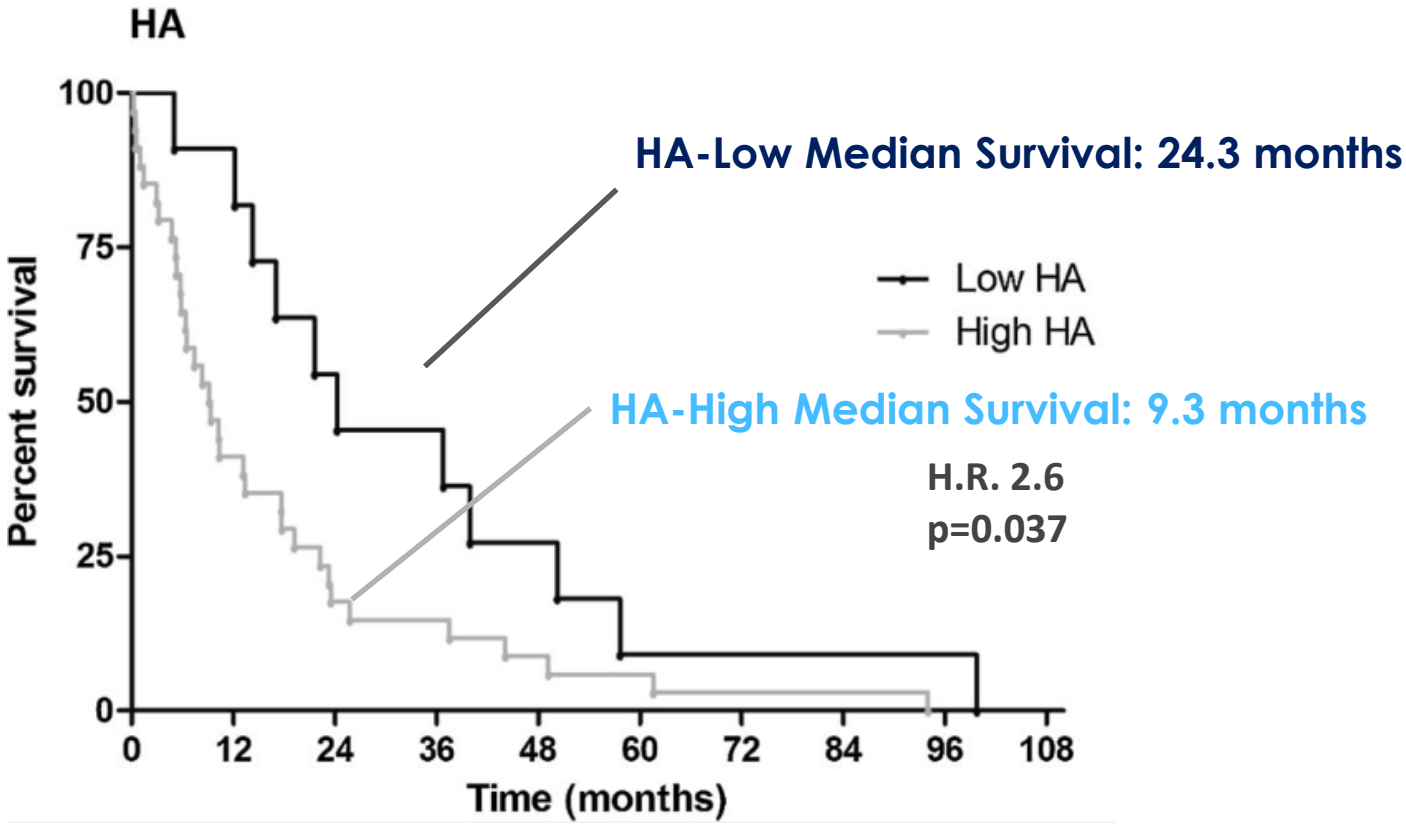
**New Partnerships**

- Potential in Oncology, Rare Diseases, Blood Disorders, Immunology, CNS and more
- Pool of Potential New Partners and Targets Remains Sizable

# PEGPH20

# Tumor HA Overexpression Associated with Shorter Survival in Pancreas Cancer

## Retrospective Evaluation of Pancreatic Cancer Survival in ~50 Patients[1]

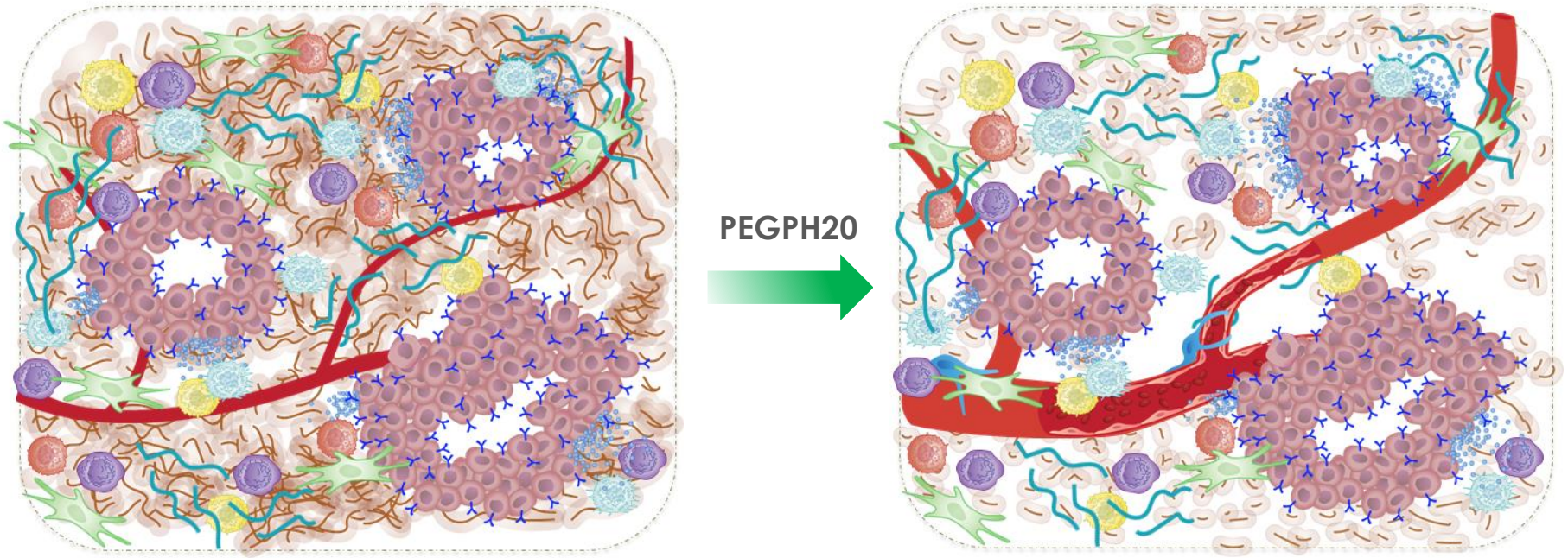



[1] Whatcott et al: Clin Cancer Res 2015, 21:3561-3568. HA staining by HABP. Scoring algorithm assessed percent staining and intensity.

# PEGPH20 Targets Hyaluronan (HA) in the Tumor Microenvironment

**In HA-High Tumor Animal Models, Removal of HA by PEGPH20 Demonstrated to:**

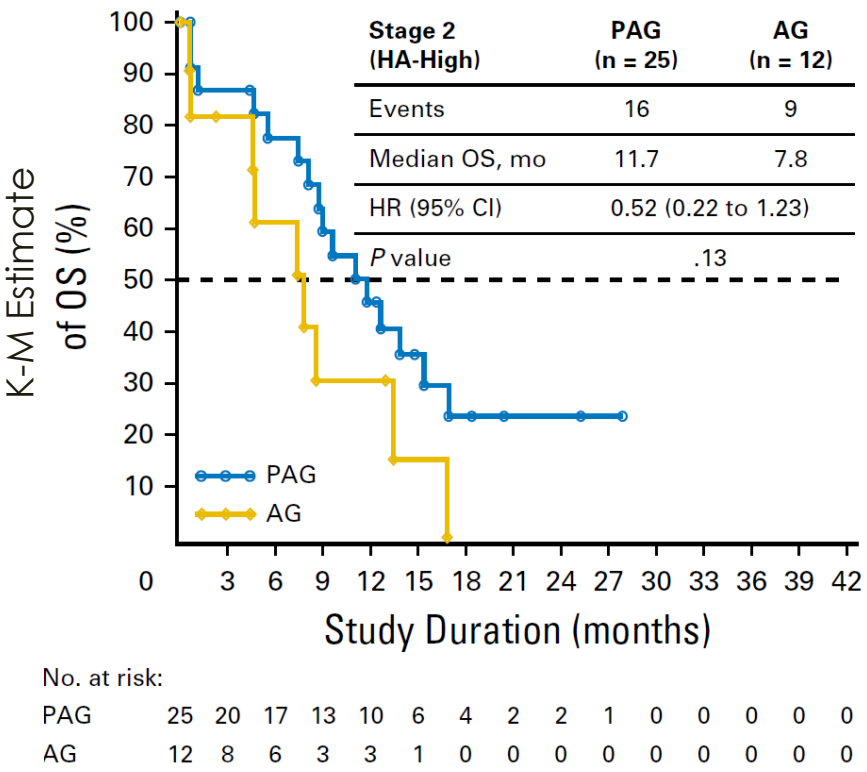
| Decrease intratumoral pressure | Decompress vasculature | Increase perfusion | Increase access for therapeutics | Increase access for immune cells |
|---|---|---|---|---|



# Proprietary Test Developed in Phase II to Identify HA-High Patients for Phase III

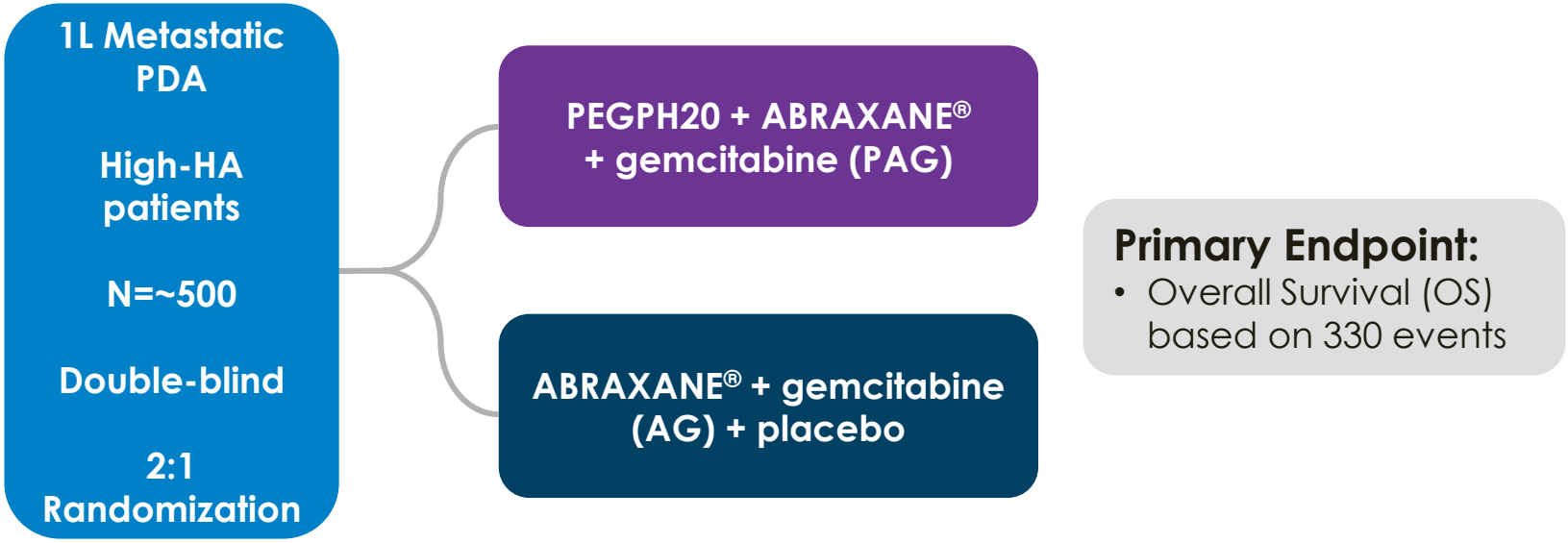
- Partnered with Roche Tissue Diagnostics (formerly Ventana) for Companion Diagnostic
- Phase II Study HALO 202 key to develop Companion Diagnostic
  - 279 1L metastatic PDA
  - PEGPH20 plus Abraxane® and Gemcitabine versus Abraxane® and Gemcitabine alone
  - HA all-comers population
- Stage 1: identification of HA algorithm/cut point
  - >50% score =HA-high
- Stage II: validation of cut-point/ algorithm for Phase III
  - 37 of 133 patients HA-high

**Analysis of OS in HA-High, Stage II HALO 202[1]**




[1] HALO 202: Randomized Phase II Study of PEGPH20 Plus Nab-Paclitaxel/Gemcitabine Versus Nab-Paclitaxel/ Gemcitabine in Patients With Untreated, Metastatic Pancreatic Ductal Adenocarcinoma *Journal of Clinical Oncology*, Hingorani et al (December 2017)

# HALO-301 Study in Metastatic Pancreas Cancer




**Expect topline data announcement by December 2019**

# ~$1B Potential Opportunity in Pancreas Cancer

**65,000**

**Annual Diagnosed Metastatic Pancreatic Ductal Adenocarcinoma (PDA) U.S. and EU 5**[1]

**25,000**

**Estimated Number of HA-High Patients**

**35–40% of Population**[2]


Halozyme

[1] SEER 18 2006-2012, Globocan 2012, DRG Epidemiology data.
[2] Halozyme estimates for HA-High %.
[3] DRG Epidemiology data, Halozyme internal estimates.
[4] Final revenue potential dependent on risk-benefit profile.

# Ongoing Studies Evaluating Pan-tumor Potential of PEGPH20

| Combination | Tumor | Stage | Status |
|---|---|---|---|
| **Checkpoint Inhibitors** | | | |
| **Atezolizumab (Tecentriq®)** *Roche* | **Pancreas Cancer (second-line)** | Phase 1b Dose Finding Started 2H 2017 | Enrollment completed |
| **Atezolizumab (Tecentriq®)** | **Gall Bladder Cancer, Cholangiocarcinoma** | Phase 1b Dose Expansion Initiated Q3 2018 | Enrolling additional 15 patients |

# 2019 Financial Guidance

| | May 2019 | August 2019 |
|---|---|---|
| Net Revenue | $205M to $215M<br>-Royalties of $72-74M | No Change |
| Operating Expenses | $265 to $275M | $255 to $265M |
| Operating Expenses (excl. COGS) | $225 to $235M | $215 to 225M |
| Operating Cash Burn | ($45M) to ($55M) | ($40M) to ($50M) |
| Debt Repayment | ~$90M | No Change |
| Year-end Cash | $210M to $220M | $220M to $230M |

# Outlook

- **Growing ENHANZE momentum**
  - ~$1 billion in annual royalty revenue potential by 2027
  - Multiple near-term catalysts in a high margin business

- Each pillar offers **strong potential upside**
  - ENHANZE: New deals *plus* up to $1 billion in lifetime milestones
  - PEGPH20: ~$1 billion global sales opportunity in pancreas cancer

- Each pillar has been incrementally **de-risked:**
  - ENHANZE: 3 approved products, DARZALEX® SC regulatory applications submitted in July 2019
  - PEGPH20: HALO-301 fully enrolled

- Expect to end 2019 in **strong financial position**
  - Projected post-301 cash balance provides operational flexibility