Forward-Looking Statements Disclaimer

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate" and similar expressions (as well as other words or expressions referencing future events or circumstances) are intended to identify forward-looking statements. These forward-looking statements reflect Five Prime's current beliefs and expectations. Each of these forward-looking statements involves risks and uncertainties. Actual results may differ from these forward-looking statements. Forward-looking statements contained in this presentation include statements about (i) the timing of initiation, progress and scope of clinical trials for our product candidates; (ii) the potential use of our product candidates, including in combination with other products, to treat patients; (iii) the timing of the presentation of data for our product candidates; (iv) the timing of the futility analysis in the FIGHT trial; (v) the extent of protein overexpression and gene amplification in certain patient populations; (vi) the prevalence and incidence of certain diseases; (vii) our full-year 2019 net cash used in operating activities; and (viii) the amount of Five Prime’s cash, cash equivalents and marketable securities at the end of 2019.

Many factors may cause differences between current expectations and actual results, including unexpected safety or efficacy data observed during preclinical or clinical studies, clinical site activation rates or clinical trial enrollment rates that are lower than expected, changes in expected or existing competition, failure of our collaborators to support or advance collaborations or product candidates and unexpected litigation or other disputes. Other factors that may cause our actual results to differ from current expectations are discussed in Five Prime’s preliminary prospectus supplement relating to the proposed offering and its other filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" sections contained therein, as well as the risks identified in the registration statement and the preliminary prospectus supplement relating to the offering under the heading "Risk Factors." Except as required by law, we assume no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.
## Five Uncorrelated Programs Targeting Multiple Cell Types

### Five Prime Controlled Programs

<table>
<thead>
<tr>
<th>Targeted Therapy for FGFR2b Overexpression</th>
<th>Immunotherapy for B7-H4 Overexpression</th>
<th>CD80-Fc Fusion Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bemarituzumab</td>
<td>FPA150</td>
<td>FPT155</td>
</tr>
</tbody>
</table>

- Blocks growth factors
- Enhanced ADCC
- Gastric & GEJ
- Phase 3 FIGHT
- Blocks the checkpoint
- Enhanced ADCC
- Breast, ovarian, endometrial
- Phase 1b
- Enhances T cell co-stimulation through CD28
- Solid tumors
- Phase 1a

### Fully Partnered Programs

<table>
<thead>
<tr>
<th>Immunotherapy for CSF-1R</th>
<th>TIM-3 Checkpoint Inhibitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabiralizumab</td>
<td>BMS-986258</td>
</tr>
</tbody>
</table>

- Depletes TAMs
- 2L pancreatic
- Randomized Phase 2
- TIM-3 Inhibition
- Solid tumors
- Phase 1 / 2

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Robust Pipeline of Immune Modulators and Precision Therapies for Multiple Solid Tumors

**Five Prime Programs**

<table>
<thead>
<tr>
<th>Antibody</th>
<th>Phase</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bemarituzumab</strong> FGFR2b Antibody</td>
<td>Phase 3</td>
<td>FIGHT trial (with chemo) in 1L gastric/GEJ cancer</td>
</tr>
<tr>
<td><strong>FPA150</strong> B7-H4 Antibody</td>
<td>Phase 1b</td>
<td>Breast, ovarian and endometrial cancers</td>
</tr>
<tr>
<td><strong>FPT155</strong> CD80-Fc Fusion</td>
<td>Phase 1a</td>
<td>Multiple tumor settings</td>
</tr>
<tr>
<td><strong>I-O Antibodies</strong></td>
<td>Lead Generation</td>
<td>Multiple tumor settings</td>
</tr>
</tbody>
</table>

**Partnered Programs**

<table>
<thead>
<tr>
<th>Antibody</th>
<th>Phase</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cabiralizumab</strong> CSF-1R Antibody</td>
<td>Phase 2</td>
<td>Cabira + OPDIVO® in 2L pancreatic cancer</td>
</tr>
<tr>
<td></td>
<td>Phase 2</td>
<td>Cabira + OPDIVO in 1L pancreatic maintenance</td>
</tr>
<tr>
<td></td>
<td>Phase 2</td>
<td>Multiple Solid Tumor Trials</td>
</tr>
<tr>
<td><strong>BMS-986258</strong> TIM-3 Antibody</td>
<td>Phase 1</td>
<td>Multiple tumor settings</td>
</tr>
<tr>
<td><strong>I-O antibodies</strong></td>
<td>Pre-IND</td>
<td>Multiple tumor settings</td>
</tr>
</tbody>
</table>

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Key Near-term Priorities

1. Bemarituzumab / FIGHT Trial
2. Most promising FPA150 opportunities
3. FPT155 safety and dose finding

- Portfolio prioritization
- Tight fiscal discipline
- Strong balance sheet to fund near-term priorities and beyond
Bemarituzumab (FPA144)
Targeted Immunotherapy for FGFR2b-Overexpressing Tumors
Bemarituzumab (FPA144) was designed to recruit tumor-killing NK cells into the tumor microenvironment and block growth factor ligands.

Enhanced ADCC to increase NK cell recruitment

Blocks growth factor ligands specific to FGFR2b splice variant

FGF7, 10, 22
FGFR2 Gene Amplification and FGFR2b Overexpression in Gastric Cancer Are Associated with Poor Prognosis

Yuki, et al ASCO 2018
The nationwide cancer genome screening project in Japan SCRUM-Japan GI-SCREEN: Efficient identification of cancer genome alterations in advanced stage gastric cancer (GC).
448 patients

<table>
<thead>
<tr>
<th>FGFR2</th>
<th>2-yr Overall Survival</th>
<th>Hazard Ratio for Overall Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative</td>
<td>48.1%</td>
<td>1</td>
</tr>
<tr>
<td>positive</td>
<td>19.8%</td>
<td>1.9</td>
</tr>
</tbody>
</table>

FGFR2 Gene Amplification

FGFR2b Protein Overexpression

Pathobiology 2015; 82:269-279

Yuki, et al ASCO 2018
The nationwide cancer genome screening project in Japan SCRUM-Japan GI-SCREEN: Efficient identification of cancer genome alterations in advanced stage gastric cancer (GC).
448 patients
Bemarituzumab Demonstrated Monotherapy Activity in Heavily Pre-treated Patients with FGFR2b+ Gastric & GEJ Cancer*

**Safety**
- No DLTs during dose escalation
- Acceptable safety of bema and limited overlapping toxicities allows for chemo combination

**ORR (confirmed) = 19%**
**DCR = 57%**

* ASCO 2017 Catenacci et al

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| Best response       | Trough Plasma Concentration (Bema Q2W) |  |
|---------------------|----------------------------------------|  |
|                     | ≥ 60 µg/mL                               | < 60 µg/mL          |
|                     | N=19                                    | N=9                  |
| Partial Response*   | 6 (31.6%)                               | 0 (0%)              |
| Stable Disease      | 10 (52.6%)                              | 2 (22.2%)           |
| Progressive Disease | 3 (15.8%)                               | 7 (77.8%)           |

The objective response rate was 31.6% (26.3% confirmed) in patients who achieved the target trough vs. 0% in those patients who did not.

*5 confirmed, 1 unconfirmed

The Phase 3 trial dosing schedule has been adjusted to target a trough of ≥60 µg/ml by D15.
**Bema and mFOLFOX6 Chemotherapy: Phase 1 Data from Safety Lead-in to FIGHT Phase 3 Trial**

Both biomarker-positive patients with Gastric/GEJ cancer had clinical benefit and had progressed after prior FOLFOX treatment

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Best overall response*</th>
<th>FGFR2b + IHC</th>
<th>FGFR2 ctDNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal</td>
<td>SD</td>
<td>-</td>
<td>NA</td>
</tr>
<tr>
<td>Colorectal</td>
<td>SD</td>
<td>-</td>
<td>NA</td>
</tr>
<tr>
<td>Colorectal</td>
<td>SD</td>
<td>-</td>
<td>NA</td>
</tr>
<tr>
<td>Colorectal</td>
<td>NE^</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

**Gastric-esophageal**
- Partial response
  - NA
  - +

**Gastric-esophageal**
- Stable disease*
  - +

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Best overall response*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreatic</td>
<td>PD</td>
</tr>
<tr>
<td>Colorectal</td>
<td>PR</td>
</tr>
<tr>
<td>Colorectal</td>
<td>SD</td>
</tr>
<tr>
<td>Colorectal</td>
<td>SD</td>
</tr>
<tr>
<td>Colorectal</td>
<td>SD</td>
</tr>
</tbody>
</table>

*Best overall response by RECISTv1.1 PET with complete metabolic response

---

**Acceptable Safety Profile**
- No Dose Limiting Toxicities
- No Grade ≥ 4 AEs, no deaths
- 1 SAE (unrelated to bema)

**No effect of chemotherapy on bema pharmacokinetics**

FIGHT Phase 3 is open and enrolling worldwide

---

**Two Dose Levels of bema tested with mFOLFOX6:**
- 6 mg/kg every two weeks
- 15 mg/kg every two weeks with Day 8 loading dose of 7.5 mg/kg
- Achieves target plasma concentration by day 15
- Selected for Phase 3 dose
FIGHT Phase 3 Trial of Bemarituzumab in Front-Line FGFR2b+ Gastric and GEJ Cancer (NCT03694522)

Initiated September 2018

- Greater than 30% of patients screened for enrollment in FIGHT have tested positive for FGFR2b overexpression

- Plan to pause enrollment in 4Q2019 when sufficient patients are enrolled for futility analysis (~25% of total enrollment)

- Early futility analysis expected to occur in 1H2020

**Study Objectives**

- Overall survival primary endpoint
- Progression-free survival
Overexpression Predicted a Survival Benefit from Herceptin in the ToGA Trial

The FIGHT trial uses IHC 2+ or 3+ as the criterion for positivity for the protein overexpression biomarker test

<table>
<thead>
<tr>
<th>Overexpression by IHC</th>
<th>Amplification by FISH</th>
<th>Number of patients</th>
<th>Hazard Ratio for Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 or 1+</td>
<td>Positive</td>
<td>131</td>
<td>1.07 (95% CI: 0.7; 1.62)</td>
</tr>
<tr>
<td>2+ or 3+</td>
<td>Negative or positive</td>
<td>446</td>
<td>0.65 (95% CI: 0.51; 0.82)</td>
</tr>
</tbody>
</table>
FPA150
Targeted Immunotherapy for B7-H4-Overexpressing Tumors
FPA150 has two mechanisms: Enhanced ADCC and Checkpoint Blockade.

- Enhanced NK-mediated cell killing (ADCC)
- Blocks B7-H4 checkpoint activity
B7-H4 is Overexpressed in Multiple Solid Tumors That Are Not Well Served by Checkpoint Inhibitors

Breast Cancer

Ovarian Cancer

Endometrial cancer

Very little expression on normal tissue
FPA150 Has Demonstrated Preclinical Anti-Tumor Activity in Combination with Checkpoint Inhibitors

FPA150 Elicits Complete Tumor Regressions in Combo with PD-(L)1 Blockade

In combination with anti-PD-1 blockade, treatment with cmFPA150F results in complete tumor regressions at doses as low as 0.3 mg/kg

Day 26; * = P < 0.05
FPA150: Phase 1a/1b Clinical Trial to Look for Activity Against B7-H4 Overexpressing Tumors

**PHASE 1a**

*Dose escalation*

*Any Solid Tumor*

Initiated 2018

**PHASE 1b**

*Expansion; B7-H4+ tumors by IHC*

*Basket B7-H4+ Tumors by IHC*

Initiated 2018

**Study Objectives**

- Safety
- Objective response rate and duration
- Survival
- Baseline and on-treatment biopsies

**ASCO**

June 2019

**ESMO**

September 2019

*Breast Cancer (HR+ & TNBC)*

*Ovarian Cancer*

*Endometrial Cancer*

Initiated early 2019

*Ovarian Cancer + Keytruda®*

Initiated May 2019 / Data in 2020
Data Presented at ASCO 2019

- Trial enrolled quickly: 8 cohorts in < 12 months
- Recommended dose for expansion is 20mg/kg, Q3 weeks, based on safety and occupancy of both B7-H4 and FcRIIIa receptor

Evidence of Activity

- > 50% response observed in patient with ovarian cancer with a 6.2 month duration of response
## Antibodies to Solid Tumor Targets are Typically Integrated into Combination Regimens

<table>
<thead>
<tr>
<th>Product</th>
<th>Single-agent ORR (late-line)</th>
<th>Combination ORR vs Single-agent or Chemo*</th>
<th>Combination Clinical Benefit</th>
<th>Typical Combination Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Herceptin</strong> (trastuzumab)</td>
<td>14%(^a)</td>
<td>45% vs 29%(^b)</td>
<td>1 yr OS 79% vs 68% p=&lt;0.01</td>
<td>With Chemo</td>
</tr>
<tr>
<td><strong>Perjeta</strong> (pertuzumab)</td>
<td>0%</td>
<td>80% vs 69%(^c)</td>
<td>PFS HR 0.62 p=&lt;0.0001</td>
<td>With Chemo + Herceptin</td>
</tr>
<tr>
<td><strong>Erbitux</strong> (cetuximab)</td>
<td>11%(^d)</td>
<td>23% vs 11%(^d)</td>
<td>mTTP 4.1 vs 1.5 mos</td>
<td>With Chemo</td>
</tr>
</tbody>
</table>

\(^a\)MBC, 1 or 2 prior Chemo regimens for metastatic disease (N=222).
\(^b\)MBC, 1st line. RCT (N=469), Chemo= paclitaxel or anthracycline (doxorubicin or epirubicin) and cyclophosphamide.
\(^c\)MBC, 1st line. RCT (N=808), trastuzumab and docetaxel +/- pertuzumab.
\(^d\)Recurrent mCRC. RCT 2:1, (N=329), cetuximab + irinotecan vs cetuximab monotherapy.
FPA150 Phase 1 Update at ESMO: Monotherapy and Combination with Pembrolizumab

Monotherapy
• Preliminary data from approximately 30 patients preselected for B7H4 tumor overexpression
• Across three cohorts
  • Ovarian
  • Breast
  • Endometrial
• Most patients will have had a single scan

Combination
• Safety data from first four patients in the ovarian combination cohort of Keytruda and FPA150

Go / No-go decision in 2020 for monotherapy and combination therapy
FPT155
First-In-Class CD80-Fc Fusion Protein
FPT155: First-In-Class CD80-Fc Fusion Protein Engineered for Monotherapy Efficacy by Activating T Cells

Normal T cell activation via CD80

FPT155 enhances antigen-dependent co-stimulation of T-cells through CD28 (without super agonism)

Antigen presenting cell

MHC

TCR

(+) signal

CD80 extracellular domain

Human IgG1 Fc

CD80 is a co-stimulatory molecule expressed on antigen presenting cells

CD80 is a co-stimulatory molecule expressed on antigen presenting cells

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Single-Agent mFPT155 Can Induce Tumor Regressions at Low Doses

Murine FPT155 (mFPT155) demonstrates monotherapy anti-tumor activity in MC38, EMT6, 4T1, and B16-F10 models.
FPT155: Phase 1a/1b Clinical Trial to Look for Monotherapy Activity

**PHASE 1a**
Dose escalation

**Any Solid Tumor**

**Exploratory cohort**

Initiated November 2018

**Basket of Solid Tumors**

**PHASE 1b**
Expansion at chosen dose

**Select Solid Tumor Cohorts**

**Study Objectives**
- Safety
- Response rate and duration
- Survival
- Baseline and on-treatment biopsies

Initiated November 2018

November 2019
Two Partnered Programs with Bristol-Myers Squibb

Cabiralizumab

- Depletes TAMs
- 2L pancreatic
- Randomized Phase 2
- N=160

Phase 1b Results
- Durable clinical benefit
- Confirmed ORR: 13%
- Disease Control Rate: 16%
- Duration of response: 5 to 9+ months

BMS Collaboration
- Potential for greater than $1B in milestone payments, tiered royalties in high teens to low twenties, and U.S. co-promotion

BMS-986258

TIM-3 checkpoint inhibitor

BMS Collaboration
- Monotherapy and Opdivo® combo
- The first of three candidates from I-O research collaboration
- BMS-986258 selected with Five Prime platform to block TIM-3/phosphatidylserine
- $300M in milestone payments per collaboration product and tiered royalties in mid-single to low double digits
Cabiralizumab (FPA008)
Antibody to Deplete Tumor-Associated Macrophages (TAMs)
Rationale for Combination I-O Therapy: TAMs and Checkpoints Inhibit T Cell-Mediated Killing Through Different Mechanisms

- **CD8 T Cell**
- **Tumor Cell**
- **PD-1**
- **PD-L1**
- **TAMs inhibit T cells**
- **PD-L1/PD-1 suppresses T cells**
- **CSF-1R**
- **High TAM levels are associated w/poor prognosis in pancreatic and other cancers**
- **Cabiralizumab blocks CSF1-R to deplete TAMs**
Cabira + OPDIVO® Induces Durable Responses Observed Without Chemo in Late-Line Pancreatic Cancer*

Best change in tumor burden over time in efficacy-evaluable patients treated with cabiralizumab 4 mg/kg + nivolumab 3 mg/kg (n=31)

Efficacy & Safety:
- Durable clinical benefit observed
  - Confirmed ORR = 13%
- Disease Control Rate = 16%
  - Duration: 5 to 9+ months
- Heavily pretreated population (average 3 prior therapies)
- All responders had microsatellite stable tumors and low TMB (do not respond to PD1/L1 therapy)
- No new or additive safety signals

Current Standard of Care 2L pancreatic – Onivyde® (liposomal irinotecan):
- ORR 7.7%; PFS 3.1 months; OS 6.1 months

BMS-Sponsored Randomized, Controlled Phase 2 Trial of Cabiralizumab/OPDIVO in 2nd-Line Pancreatic Cancer (NCT03336216)

- 43 sites posted on clinicaltrials.gov
- Sites in
  - Asia
  - USA
  - EU

**Trial Arms (2nd-Line)**

<table>
<thead>
<tr>
<th>Arm</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Chemotherapy alone Gemcitabine/Abraxane® or 5-FU/leucovorin/Onivyde®</td>
</tr>
<tr>
<td>B</td>
<td>Cabiralizumab + OPDIVO</td>
</tr>
<tr>
<td>C</td>
<td>Cabiralizumab + OPDIVO combined with gemcitabine + Abraxane</td>
</tr>
<tr>
<td>D</td>
<td>Cabiralizumab + OPDIVO combined with oxaliplatin/5-FU/leucovorin</td>
</tr>
</tbody>
</table>

N ~160 patients, fully enrolled

**Study Objectives**

- Progression-free survival (primary)
- Objective response rate and duration
- Overall survival rate

Study will generate data in 2020 that could support a front-line or second-line pivotal study
## High Incidence of Unresectable or Metastatic Pancreatic Cancer in Major Markets

<table>
<thead>
<tr>
<th>Drug-treatable population (2017)</th>
<th>US</th>
<th>EU5*</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-line</td>
<td>47,160</td>
<td>52,830</td>
<td>32,470</td>
</tr>
<tr>
<td>Second-line</td>
<td>23,400</td>
<td>25,840</td>
<td>15,700</td>
</tr>
</tbody>
</table>

---


* - EU5 = France, Germany, Italy, Spain, UK
### Cabira Development Program Addresses Multiple Tumor Settings

<table>
<thead>
<tr>
<th>Phase</th>
<th>Treatment</th>
<th>Subjects</th>
<th>Indication</th>
<th>Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 2</td>
<td>Cabira+Nivo±chemo vs. chemo (randomized)</td>
<td>160</td>
<td>Pancreatic (2L)</td>
<td>March 2018</td>
</tr>
<tr>
<td>Phase 1</td>
<td>Cabira+Nivo+Urelumab+Radiotherapy</td>
<td>60</td>
<td>Advanced Solid Tumors</td>
<td>March 2018</td>
</tr>
<tr>
<td>Phase 1</td>
<td>Cabira+Nivo (ADVISE)</td>
<td>50</td>
<td>Advanced Solid Tumors</td>
<td>March 2018</td>
</tr>
<tr>
<td>Phase 1/1b</td>
<td>Cabira+Nivo+APX005M (anti-CD40)</td>
<td>120</td>
<td>Melanoma, NSCLC and RCC</td>
<td>June 2018</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Cabira+Nivo+Radiotherapy</td>
<td>20</td>
<td>Pancreatic</td>
<td>August 2018</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Cabira+Nivo vs. Nivo</td>
<td>16</td>
<td>Biliary Tract Cancer</td>
<td>January 2019</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Cabira+Nivo</td>
<td>33</td>
<td>Peripheral T Cell Lymphoma</td>
<td>April 2019</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Cabira+Nivo or anti-IL8+Nivo</td>
<td>74</td>
<td>Hepatocellular carcinoma</td>
<td>August 2019</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Cabira+Nivo+Gemcitabine vs. Gemcitabine (randomized) (GemCaN)</td>
<td>40</td>
<td>Pancreatic (1L maintenance)</td>
<td>September 2019</td>
</tr>
</tbody>
</table>
BMS-986258
Antibody to TIM-3, an immune checkpoint receptor
Dying Tumor Cells Can Suppress the Immune System through Interaction with TIM-3 Mediated by Phosphatidylserine

Dying Tumor Cell

Phosphatidylserine

TIM-3

T Cell

(-)
BMS-986258, TIM-3 Antibody: Phase 1/2 Clinical Trial Testing Monotherapy and Combination with OPDIVO

**PHASE 1**

*Arm A – Dose Escalation*

BMS-986258

• Study Objectives
  - Safety
  - Objective response rate and duration
  - Survival

**PHASE 2**

*Arm C – Dose Expansion*

BMS-986258 + OPDIVO

• BMS-986258 is first of three candidates from I-O research collaboration with BMS
• BMS-986258 selected with Five Prime platform to block TIM-3/phosphatidylserine interaction

* Recombinant human PH20 enzyme

* Initiated 2018

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Cash, Guidance and Milestones
## Financial Snapshot

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash, cash equivalents &amp; marketable securities</td>
<td>$214 million as of June 30, 2019</td>
</tr>
<tr>
<td>FY 2019 estimated net cash used in operating activities</td>
<td>$117 - $122 million</td>
</tr>
<tr>
<td>Estimated cash, cash equivalents &amp; marketable securities, EOY 2019</td>
<td>$148 - $153 million</td>
</tr>
</tbody>
</table>
### Strong Execution of Five Prime-Controlled Clinical Programs

<table>
<thead>
<tr>
<th><strong>Bemarituzumab (FGFR2b Antibody)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate randomized, global Phase 3 FIGHT trial in 1L gastric/GEJ cancer</td>
<td>✔</td>
</tr>
<tr>
<td>Present Phase 1 FIGHT trial safety lead-in data at ASCO GI</td>
<td>✔</td>
</tr>
<tr>
<td>Initiate trial globally</td>
<td></td>
</tr>
<tr>
<td>Futility Analysis to assess clinical benefit</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FPA150 (B7-H4 Antibody)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate exploratory cohort of FPA150 monotherapy in patients with tumors that overexpress B7-H4</td>
<td>✔</td>
</tr>
<tr>
<td>Complete dose escalation, select a dose and initiate Phase 1 expansion</td>
<td>✔</td>
</tr>
<tr>
<td>Present early Phase 1 data at ASCO</td>
<td>✔</td>
</tr>
<tr>
<td>Present Phase 1 data at ESMO</td>
<td></td>
</tr>
<tr>
<td>Present FPA150 + Keytruda® data in ovarian cancer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FPT155 (CD80-Fc Fusion Protein)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate Phase 1a dose escalation</td>
<td></td>
</tr>
<tr>
<td>Present early Phase 1a safety data at SITC</td>
<td></td>
</tr>
</tbody>
</table>
Key Takeaways

**Robust pipeline of immune modulators and precision therapeutics**

**Five Prime Controlled**
- Bemarituzumab (FGFR2b antibody)
- FPA150 (B7-H4 antibody)
- FPT155 (CD80-Fc fusion protein)

**Fully Partnered**
- Cabiralizumab (CSF-1R antibody)
- BMS-986258 (TIM-3 antibody)

**A year of rapid clinical advancement**
- Safety lead-in data to FIGHT Phase 3 at ASCO GI
- FPA150 data at ASCO & ESMO
- FPT155 data at SITC
- Cabira Phase 2 enrollment completion
- BMS-986258 (TIM-3 antibody) trial expansion

**The financial resources to achieve our goals**

**Q2 2019**
- $214M in cash

**YE 2019**
- $148 - $153M estimated cash
Thank you

www.fiveprime.com
We Utilize Our IND Engine to Agnostically Find and Generate Novel Therapeutics

Comprehensive Libraries of Extracellular Proteins

- Secreted Factors
- Cell Surface Receptors/Ligands
- Soluble Extracellular Domains

Proprietary Screens

- Cell-based Screens
- In Vivo Screens
- Receptor-Ligand Matching

Protein Therapeutics

- Antibodies
- Soluble Receptors – Ligand Traps

In Clinical Development

- bemarituzumab (anti-FGFR2b)
- cabiralizumab (anti-CSF-1R)
- BMS-986258 (anti-TIM-3)
- FPA150 (anti-B7H4)
- FPT155 (CD80-Fc Fusion)

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The Herceptin ToGA Trial in Front Line Gastric Cancer is a Relevant Analog for the Bemarituzumab Phase 3 FIGHT Trial

**HER2** protein expression, rather than gene amplification, was the key determinant of clinical benefit from Herceptin plus chemotherapy

<table>
<thead>
<tr>
<th></th>
<th>Chemo</th>
<th>Chemo + Herceptin</th>
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<tbody>
<tr>
<td><strong>FISH+/IHC 0 or 1+</strong></td>
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<tr>
<td>Median OS</td>
<td>8.8 months</td>
<td>8.3 months</td>
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<tr>
<td>Hazard Ratio</td>
<td>1.33</td>
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<tr>
<td><strong>FISH+/IHC 2+</strong></td>
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<tr>
<td>Median OS</td>
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<td>12.3 months</td>
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<td>Hazard Ratio</td>
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<tr>
<td><strong>FISH+ or FISH- / IHC 3+</strong></td>
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<td>Median OS</td>
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<td>18.0 months</td>
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<tr>
<td>Hazard Ratio</td>
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</table>

Vast majority of FIGHT patient population is IHC2+/3+