Targeting the genetic and immunological drivers of cancer
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Mirati Therapeutics
Answering Cancer’s Challenges with a Targeted Approach

Who We Are:
- A Team of Knowledgeable and Experienced Oncology Drug Developers with a Track Record of Success in Rapidly Developing Multiple Therapies from Preclinical Development to the Market
- Applying Proven Approaches to the Development of Sitravatinib and MRTX849

Where We Are Focused:
- Addressing Areas of Unmet Need for Large Patient Populations
  > Treating cancer progression after checkpoint inhibitor therapy
  > Targeting KRAS mutations across multiple tumor types
- Utilizing our Knowledge to Expedite Development
  > From Identifying Lead to IND for MRTX849 in 9 months

Oncology Experience
Mirati’s Development Pipeline

<table>
<thead>
<tr>
<th>Indication</th>
<th>Preclinical</th>
<th>Phase 1/1b</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Key Milestones</th>
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<tbody>
<tr>
<td>KRAS</td>
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<tr>
<td>Oral KRAS Inhibitors</td>
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<td>MRTX849</td>
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<tr>
<td>G12C Inhibitor</td>
<td>Resectable</td>
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<td>NSCLC, CRC, Pancreatic</td>
<td>Resectable</td>
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<td>Nivolumab</td>
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<td>G12D Inhibitor</td>
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<td>CRC, NSCLC, Pancreatic</td>
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<td>Immuno-oncology</td>
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<td>Sitravatinib</td>
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<td>+ Nivolumab</td>
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<td>NSCLC</td>
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<tr>
<td>MOA Trials</td>
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<td>RCC, Head &amp; Neck</td>
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<tr>
<td>Immuno-oncology</td>
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<td>Sitravatinib</td>
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<td>+ Tislelizumab (anti-PD-1)</td>
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<tr>
<td>NSCLC, RCC, HCC, Gastric,</td>
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<tr>
<td>Ovarian, other</td>
<td></td>
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<td>Targeted Single Agent</td>
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<td>CBL mutations</td>
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<td>NSCLC</td>
<td></td>
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<tr>
<td>Melanoma</td>
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<tr>
<td>MOA</td>
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</table>

NSCLC = non-small cell lung cancer; CRC = colorectal cancer; RCC = renal cell cancer; HCC = hepatocellular cancer; IND = Investigational New Drug application; Tislelizumab (BeiGene’s anti PD-1)

MOA = Mechanism of Action
Targeted Oncology

MRTX849: KRAS G12C Inhibitor
KRAS is the Most Frequently Mutated Gene in Human Cancer

Controlled KRAS Signaling
A key regulator of cell growth and survival

Abnormal KRAS Signaling
Mutated KRAS activity is uncontrolled
KRAS G12C Mutations Occur Frequently in Multiple Tumor Types

KRAS G12C Mutation Frequency


2. Mirati estimates based on epidemiology data reported in Globocan 2022 (accessed January 2019) and frequencies by mutation. Rounded to the nearest 100.
MRTX849: Preclinical Attributes Have Potential to be Best-in-Class

MRTX849 Designed to Maximize Systemic Exposure

Bioavailability
- Projected Human Bioavailability >50%

Tissue Distribution
- Projected Human Volume of Distribution >10 L/Kg

Half Life
- Projected Human Half Life >20 hours

Opportunity for Full Suppression Of Mutant KRAS Signaling
Phase 1/2 Clinical Trial of MRTX849 in Patients with KRAS G12C+ Tumors
Presented at 2019 AACR-NCI-EORTC Conference

**Study Population**
- Solid tumor with KRAS (p.G12C) mutation based on Sponsor-approved test
- Unresectable or metastatic disease
- No available treatment with curative intent
- No active brain metastases

**Study Endpoints**
- Safety,
- PK/PD
- Clinical Activity

---

**Doses Evaluated**

- **Patient subsequently dose escalated:**
  - 300 mg (QD)
  - 600 mg (QD)
- **600 mg BID**
  - N=1
- **1200 mg QD**
  - N=1
- **600 mg (QD)**
  - N=2
- **300 mg (QD)**
  - N=1
- **150 mg (QD)**
  - N=1

---

**ClinicalTrials.gov Identifier:** NCT03785249

Data cut-off date: 11-Oct-2019
600mg BID Dose Achieves 2X Predicted Exposure for Maximal Response

1200 mg (600 mg BID) exceeds by 2-fold the exposure required for maximal response in the least sensitive animal models.

600 mg QD exceeds the minimum exposure for response in the most sensitive animal models, but not the least sensitive animal models.

<table>
<thead>
<tr>
<th>600 mg BID GeoMean (CV%)</th>
<th>$C_{\text{max}}$ (ng/mL)</th>
<th>$AUC_{0-24}$ (ug*h/mL)</th>
<th>$C_{\text{ave}}$ (ng/mL)</th>
<th>$t^{\frac{1}{2}}$ (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady State (N=10)</td>
<td>3180 (50.4)</td>
<td>69.8 (58.6)$^a$</td>
<td>2880 (51.4)</td>
<td>24.7$^b$</td>
</tr>
</tbody>
</table>

Median (Min-Max); $^a$N=9; $^b$N=1 (Only 1 patient contributed to the lead-in 96 hours post-dose sampling);
Data Source: Interim Pharmacokinetic Data (14 October 2019)
Phase 1/2 Clinical Trial of MRTX849 in Patients with KRAS G12C+ Tumors

Presented at 2019 AACR-NCI-EORTC Conference

Patient Incidence of Treatment Related AEs (>10%)

<table>
<thead>
<tr>
<th>Treatment-Related AEs (N=17)</th>
<th>Grade 1 n</th>
<th>Grade 2 n</th>
<th>Grade 3 n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhea</td>
<td>6</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Nausea</td>
<td>8</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>AST Increased</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vomiting</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Fatigue</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>ALT Increased</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Creatinine Increased</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Abdominal Distension</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Abdominal Pain</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alkaline Phosphatase Increased</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
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<tr>
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<th>Grade 1 n</th>
<th>Grade 2 n</th>
<th>Grade 3 n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anemia</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Decreased Appetite</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Dehydration</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Dry Mouth</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dysgeusia</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>QT Prolonged</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Hypomagnesemia</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rash</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Dose limiting toxicities observed: 1200 QD capsule burden intolerable (12 capsules); 600 mg BID grade 3/4 amylase/lipase increase, isolated enzyme elevation without pancreatitis (only treatment related Grade 4 AE observed)

Data cut-off date: 11-Oct-2019
Phase 1/2 Clinical Trial of MRTX849 in Patients with KRAS G12C+ Tumors

Presented at 2019 AACR-NCI-EORTC Conference

600 mg BID Dose Patients: Best Tumor Response* (N=9)

- Appendiceal (N=2):
  - SD: 0%
  - SD: -1%

- CRC (N=2):
  - SD: 1%

- NSCLC (N=5):
  - SD: -2%
  - SD: -21%
  - PR‡: -47%
  - PR‡: -36%
  - PR‡: -43%
  - PR‡: -62%

**Evaluable Patients at 600mg BID**

<table>
<thead>
<tr>
<th>Tumor Type</th>
<th>ORR</th>
<th>DCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSCLC</td>
<td>3/5</td>
<td>5/5</td>
</tr>
<tr>
<td>CRC</td>
<td>1/2</td>
<td>2/2</td>
</tr>
<tr>
<td>Append</td>
<td>0/2</td>
<td>2/2</td>
</tr>
</tbody>
</table>

ORR: Overall Response Rate
DCR: Disease Control Rate

(SD+PR at 6 weeks)

* Based on local radiographic scans every 6 weeks using RECIST 1.1 criteria
‡ Confirmed response (1st scan: -37%, 2nd scan: -47%); † Response yet to be confirmed (on study but only 1 scan);
§ Patient had confirmed PR post data cut-off (1st scan: -33%, 2nd scan: -43%)

Data cut-off date: 11-Oct-2019

Patient on study (off study patient: 1 patient withdrawal of consent [travel constraints])
Phase 1/2 Clinical Trial of MRTX849 in Patients with KRAS G12C+ Tumors

Presented at 2019 AACR-NCI-EORTC Conference

All Evaluable Patients: Best Tumor Response* (N=12)

- **CRC ORR:** 1/4
  - **DCR:** 3/4

- **NSCLC ORR:** 3/6
  - **DCR:** 6/6

- **Append ORR:** 0/2
  - **DCR:** 2/2

**Evaluable Patients at All Doses**

<table>
<thead>
<tr>
<th>Tumor Type</th>
<th>ORR</th>
<th>DCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSCLC</td>
<td>3/6</td>
<td>6/6</td>
</tr>
<tr>
<td>CRC</td>
<td>1/4</td>
<td>3/4</td>
</tr>
<tr>
<td>Append</td>
<td>0/2</td>
<td>2/2</td>
</tr>
</tbody>
</table>

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- § Patient had confirmed PR post data cut-off (1st scan: -33%, 2nd scan: -43%)
- ○ Patient on study (off study patients: 1 progressive disease, 1 global deterioration of health, 1 patient withdrawal of consent)

**Dose:**
- 150 mg (QD)
- 300 mg (QD)
- 600 mg (QD)
- 600 mg (BID)

**Data cut-off date:** 11-Oct-2019

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MRTX849: KRAS G12C Inhibitor

Phase 1/2 Clinical Trial of MRTX849 in Patients with KRAS G12C+ Tumors

Presented at 2019 AACR-NCI-EORTC Conference

**Evaluable Patients at All Doses**

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<th>Tumor Type</th>
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<tr>
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<tr>
<td>Append</td>
<td>0/2</td>
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(SD+PR at 6 weeks)

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- ○ Patient on study (off study patients: 1 progressive disease, 1 global deterioration of health, 1 patient withdrawal of consent)

**Dose:**
- 150 mg (QD)
- 300 mg (QD)
- 600 mg (QD)
- 600 mg (BID)

**Data cut-off date:** 11-Oct-2019
Phase 1/2 Clinical Trial of MRTX849 in Patients with KRAS G12C+ Tumors

Presented at 2019 AACR-NCI-EORTC Conference

All Evaluable Patients: Duration of Treatment (N=12)

- **Evaluable Patients (N=12)**
  - **Duration on Treatment** (as of 11-Oct-2019)
    - **NSCLC** (N=6): 6.7 - 38.6 weeks
    - **CRC** (N=4): 9.9 - 30.1 weeks
    - **Appendiceal** (N=2): 10.7 - 20.7 weeks

- **Dose:**
  - a. 150 mg QD; b. 300 mg QD; c. 600 mg QD; all other patients received 600 mg BID

- **Data cut-off date:** 11-Oct-2019
Case Study #1: NSCLC Patient
Presented at 2019 AACR-NCI-EORTC Conference

Demographics
45 year old female with metastatic adenocarcinoma, former smoker

Molecular Characteristics
- KRAS G12C mutation (c.34G>T)
- KEAP1 (K97M)
- STK11 (E223*)

Treatment History
- Carboplatin/pemetrexed/pembrolizumab
- Docetaxel
- Investigational treatment with binimetinib plus palbociclib
- Best response on prior regimens was SD

Best Response
PR: 33% reduction at first scan. A 43% reduction was observed at the second scan, after the data cut-off. The patient remains on study.

Marked clinical improvement within 2 weeks, including complete resolution of baseline cough and oxygen dependency.

§ This patient had confirmed PR post data cut-off (1st scan: -33%, 2nd scan: -43%)
Case Study #2: CRC Patient

Presented at 2019 AACR-NCI-EORTC Conference

Demographics

47 year old KRAS (p.G12C) female with adenocarcinoma of the left colon with extensive metastases involving the liver, peritoneum, ovaries and lymph nodes, never smoked

Treatment History

- FOLFOX/bevacizumab, partial response
- Capecitabine monotherapy, no response
- FOLFIRI/bevacizumab, no response
- Investigational antibody drug conjugate, no response

Best Response

PR: 37% reduction at first scan, confirmed PR with 47% reduction at second scan. The patient remains on study.

Marked clinical improvement within 3 weeks and a visible decrease in size of her umbilical Sister Mary Joseph’s nodule
MRTX849: KRAS G12C Inhibitor – Combinations

MRTX849 Monotherapy Development Plan

NSCLC

- Enrolling Expansion Cohort
- Expected FDA Meeting
- Potential for Single Arm Accelerated Approval Pathway

CRC

- Enrolling Expansion Cohort
- Confirm Monotherapy Activity
- Expected FDA Meeting
- Potential for Single Arm Accelerated Approval Pathway

Pancreatic and Others

- Enrolling Expansion Cohort
- Confirm Monotherapy Activity
- Expected FDA Meeting
- Potential for Tumor Agnostic Approval Pathway

Existing Phase 1/2 Protocol Supports Potential Monotherapy Registrations
MRTX849 Combination Development Strategy: Multiple Opportunities to Expand Clinical Benefit in NSCLC and CRC

**NSCLC**

**PD-1 Combination**
MRTX849 + pembrolizumab
- Synergistic preclinical data
- KRAS G12C+ tumors respond to checkpoint inhibitor therapy
- Potential rapid path to 1st Line

**CRC**

**EGFR Combination**
MRTX849 + cetuximab
- Combats RAS pathway reactivation
- Positive results from EGFR combination with bRAF/MEK is supportive of approach

**Priority Combinations**

- **SHP2 Combination**
  MRTX849 + TNO115 (Novartis)
  - Combats RAS pathway reactivation
  - Clinical partnership with Novartis

- **EGFR Combination**
  MRTX849 + pan-EGFR inhibitor
  - Pushes KRAS into vulnerable GDP state
  - Potential utility in NSCLC and CRC

- **CDK 4/6 Combination**
  MRTX849 + CDK 4/6 inhibitor

**Other Combination Opportunities**

- **EGFR Combination**
  MRTX849 + cetuximab
  - Combats RAS pathway reactivation
  - Positive results from EGFR combination with bRAF/MEK is supportive of approach

- **CDK 4/6 Combination**
  MRTX849 + CDK 4/6 inhibitor
  - Pushes KRAS into vulnerable GDP state
  - Potential utility in NSCLC and CRC
PD-1 Combinations: Synergistic Effect Observed with MRTX849 in vivo

KRAS G12C NSCLC tumors are primed for checkpoint inhibitor therapy with high levels of TMB and PD-L1 expression.

- MRTX849 treatment stimulated anti-tumor immunity and recruits CD4+ & CD8+ T cells in KRAS G12C-mutant tumors.

- MRTX849 combined with a PD-1 inhibitor may provide another path to first line treatment.

1. Preliminary results from MRTX849 testing in CT26 Clone E3 G12C syngeneic mouse model
MRTX849 / PD-1 Combination Elicits Durable Complete Responses in a KRAS G12C-mutant Mouse Model

- MRTX849 + PD-1 antibody led to durable complete responses in 6/10 CT26 KRAS G12C tumor bearing mice and improved survival benefit
- Combination-treatment mice with durable, complete responses were re-challenged with CT26 KRAS G12C cells and tumors did not reform
- Data suggests MRTX849 + PD-1 antibody treatment eliminates tumors through an adaptive immune anti-tumor response
EGFR and SHP2 Combinations: Combating RAS Pathway Reactivation

1. KYSE-410 xenograft model (MRTX849 100mg/kg; RMC-4550 30mg/kg); 2. LU11692 xenograft model (MRTX849 100mg/kg; afatinib 12.5mg/kg)

MRTX849: KRAS G12C Inhibitor – Combinations

MRTX849 and SHP2 Inhibitor

Vehicle
MRTX849
RMC-4550 (SHP2)
MRTX849 + RMC-4550 (SHP2)

MRTX849 and EGFR Inhibitor

Vehicle
afatinib (EGFR)
MRTX849
MRTX849 + afatinib (EGFR)

1. KYSE-410 xenograft model (MRTX849 100mg/kg; RMC-4550 30mg/kg); 2. LU11692 xenograft model (MRTX849 100mg/kg; afatinib 12.5mg/kg)
Addressing KRAS G12C+ Tumors is a Potential $7B+ Market Opportunity

Large Patient Population
US and EU Patients\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>US and EU Patients</th>
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</thead>
<tbody>
<tr>
<td>KRAS G12C</td>
<td>~68,000</td>
</tr>
<tr>
<td>ALK</td>
<td>~20,000</td>
</tr>
<tr>
<td>RET</td>
<td>~10,000</td>
</tr>
<tr>
<td>TRK</td>
<td>~2,000</td>
</tr>
</tbody>
</table>

Significant Commercial Potential
Projected US and EU Markets for KRAS G12C\(^2\)

- NSCLC: $4.9B
- Colorectal: $2.2B
- Pancreatic: $400M
- Total: ~$7+ Billion Potential Market

Expanded Clinical Utility Through Combinations Would Further Increase the Commercial Market

1. Mirati estimates based on epidemiology data reported in Globocan 2022 (accessed January 2019) and frequencies by mutation; RET estimate does not include thyroid cancer
2. Mirati estimate, assuming revenue of $150,469 per US patient (net price of $16,719/mon and median duration of treatment of 9 months) and $90,281 per EU patient (40% discount to US). Duration of treatment modeled from clinical observations with MEK/RAF combination therapy in BRAF-mutated NSCLC
MRTX849 Summary: A Potential Best-in-Class KRAS G12C Inhibitor

Preclinical Attributes of MRTX849

- **Potent:** 1-20 nM potency in cellular assays
- **Selective:** 1,000-fold selective for KRAS G12C mutations over KRAS\textsuperscript{wild type}
- **Highly active \textit{in vivo}:** complete durable regressions in KRAS G12C CDX and PDX models

- **Orally bioavailable:** preclinical projection of >50% human bioavailability
- **Long half life:** preclinical projection of >20-hour human half life maintains full inhibition of KRAS G12C

Significant Commercial Potential

**Large Patient Population:** KRAS G12C incidence is ~24,500 in the U.S. alone \(^{(1)}\)

**Large Commercial Opportunity:** Patient population is 3X larger than the $1.8B ALK market \(^{(2)}\)

Potential Registration Pathways

**Monotherapy:** Phase 1/2 Clinical Trial (KRYSTAL) expansion cohorts enrolling now, potential for single arm registration from this protocol

**Combinations:** Opportunities to expand clinical and commercial potential through rational combinations; trials to be initiated in parallel with monotherapy cohorts

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1. Mirati estimates based on epidemiology data reported in Globocan 2022 (accessed January 2019) and frequencies by mutation
2. ALK market: 2018 worldwide sales
Targeted Oncology

KRAS G12D Program
Mirati’s Next KRAS Program: A Direct Inhibitor of KRAS G12D

Prevalent in Tumors with High Unmet Need
KRAS G12D Mutational Frequencies

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>KRAS G12D</th>
<th>Total US/EU Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreatic</td>
<td>36%</td>
<td>70,500</td>
</tr>
<tr>
<td>Colorectal</td>
<td>12%</td>
<td>81,000</td>
</tr>
<tr>
<td>Endometrial</td>
<td>6%</td>
<td>15,000</td>
</tr>
<tr>
<td>NSCLC adenocarcinoma</td>
<td>4%</td>
<td>12,500</td>
</tr>
</tbody>
</table>

Large Patient Population
US and EU Patients

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>KRAS G12D</th>
<th>KRAS G12C</th>
<th>ALK</th>
<th>RET</th>
<th>TRK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreatic</td>
<td>6%</td>
<td>12%</td>
<td>36%</td>
<td>8%</td>
<td>1%</td>
</tr>
<tr>
<td>CRC</td>
<td>12%</td>
<td>36%</td>
<td>9%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Endometrial</td>
<td>4%</td>
<td>12%</td>
<td>6%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>NSCLC</td>
<td>4%</td>
<td>12%</td>
<td>6%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

2. Mirati estimates based on epidemiology data reported in Globocan 2022 (accessed November 2019) and frequencies by mutation; RET estimate does not include thyroid cancer. Rounded to the nearest 100
Immuno-Oncology Combinations

Sitravatinib + Checkpoint Inhibitors
Sitravatinib in the Tumor Microenvironment Aims to Restore Immune Responses Through Inhibition of Immunosuppressive Signaling

**Sitravatinib**

**Tyro, Axl, Mer**
- Macrophages shift to Type 1 resulting in production of immune stimulating cytokines
- Enhances innate and adaptive immune response

**VEGFR2, KIT + Tyro, Axl, Mer**
- Dendritic cell dependent antigen presentation
- NK cell response
- T cell trafficking

**VEGFR2 & KIT**
- Reduction in Tregs and MDSCs
- Enhance CD8+ T-cell response

**Pre-Treatment**
- Immuno-suppressive

**Post-Treatment**
- Immuno-responsive

---


Garton et al., Anti-KIT Monoclonal Antibody Treatment Enhances the Antitumor Activity of Immune Checkpoint Inhibitors by Reversing Tumor-Induced Immunosuppression. Mol Cancer Ther, 2017, 16(4)


Currently Enrolling SAPPHIRE - Phase 3 Program in 2\textsuperscript{nd} Line NSCLC

Sitravatinib + Nivolumab Randomized Phase 3 Trial Design

**Two Opportunities for Approval in 2\textsuperscript{nd} Line NSCLC:**
- Interim Analysis: ORR, for Accelerated Approval (Expected in Q4'20)
- Primary Analysis: OS, for Full Approval (Expected in Q4'21)

**Primary Analysis OS**
N:~620 pts

**Randomization 1:1**

- Sitravatinib + Nivolumab
- Docetaxel

**Key Inclusion/Exclusion Criteria:**
- Advanced, Non-Squamous NSCLC
- Progression on or following first line combination of PD-(L)1 inhibitor plus chemotherapy
- Excludes patients with known driver mutations

**Endpoints:**
- Interim: ORR (for potential Subpart H accelerated approval)
- Primary: OS (for potential full approval)
- Secondary: PFS, duration of response, safety, tolerability

**Projected Phase 3 Timing:**
- Study Initiation: Currently Enrolling
- Interim ORR Analysis: Q4 2020
- Primary OS Analysis: Q4 2021

ORR = Overall Response Rate; DOR = Duration of Response; OS = Overall Survival; PFS = Progression-Free Survival; NSCLC = non-small cell lung cancer
2nd Line NSCLC Represents a Significant Market Opportunity for Sitravatinib in Checkpoint Refractory Patients

Keytruda + Chemo 1st Line
*Has Created an Opportunity in 2nd Line*

- **No/Low PD-L1**
  - 1L: Keytruda + Chemo
  - 2L: Checkpoint Refractory (Docetaxel Standard of Care)
  - 3L: Docetaxel

- **High PD-L1**
  - 1L: Keytruda

2017 NSCLC Market - US Sales
- 1st Line = $4.4B
- 2nd Line = $2.8B

1st Line Treated Patients (US): 101,000
2nd Line Treated Patients (US): 61,000

Sources: EvaluatePharma, CancerMPact Patient Metrics and Kantar Health analysis
### Docetaxel: An Efficacy Comparator Used in Prior 2nd Line NSCLC Trials

#### Advanced NSCLC 2nd Line or Subsequent Therapy

<table>
<thead>
<tr>
<th>Trial</th>
<th>Compound</th>
<th>Pts</th>
<th>ORR, %</th>
<th>DOR, Mo.</th>
<th>PFS, Mo. (Range)</th>
<th>SD, %</th>
<th>CBR, % (CR+PR+SD)</th>
<th>OS, Mo. (Range)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Checkpoint Naïve Patients</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CheckMate 057[1]</td>
<td>nivolumab</td>
<td>n=292</td>
<td>19%</td>
<td>17.2</td>
<td>2.3 (2.2-3.3)</td>
<td>25%</td>
<td>44%</td>
<td>12.2 (9.7-15.0)</td>
</tr>
<tr>
<td></td>
<td>docetaxel</td>
<td>n=290</td>
<td>12%</td>
<td>5.6</td>
<td>4.2 (3.5-4.9)</td>
<td>42%</td>
<td>54%</td>
<td>9.4 (8.1-10.7)</td>
</tr>
<tr>
<td>OAK[2]</td>
<td>atezolizumab</td>
<td>n=425</td>
<td>14%</td>
<td>16.3</td>
<td>2.8 (2.6-3.0)</td>
<td>35%</td>
<td>49%</td>
<td>13.8 (11.8-15.7)</td>
</tr>
<tr>
<td></td>
<td>docetaxel</td>
<td>n=425</td>
<td>13%</td>
<td>6.2</td>
<td>4.0 (3.3-4.2)</td>
<td>42%</td>
<td>55%</td>
<td>9.6 (8.6-11.2)</td>
</tr>
<tr>
<td>KEYNOTE 010[3]</td>
<td>pembrolizumab</td>
<td>n=345</td>
<td>18%</td>
<td>Not yet reported</td>
<td>3.9 (3.1-4.1)</td>
<td>10.4 (9.4-11.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>docetaxel</td>
<td>n=343</td>
<td>9%</td>
<td>6.1</td>
<td>4.0 (3.1-4.2)</td>
<td>75%</td>
<td></td>
<td>8.5 (7.5-9.8)</td>
</tr>
<tr>
<td><strong>Checkpoint Refractory Patients</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRTX-500[4]</td>
<td>sitravatinib + nivolumab</td>
<td>n=56</td>
<td>20%</td>
<td>9.2*</td>
<td>6.8*</td>
<td>55%</td>
<td>75%</td>
<td>15.1*</td>
</tr>
</tbody>
</table>

Data presented is from separate studies and does not reflect results that might have been obtained from head-to-head studies. Results from Mirati’s on-going Phase 3 trial comparing sitravatinib + nivolumab to docetaxel may differ materially from prior studies presented.

4. Mirati ESMO 2018 Congress – Phase 2 data update

ORR = Overall Response Rate  
DOR = Duration of Response  
CBR = Clinical Benefit Rate (CR + PR + SD>14 weeks)  
SoC = Standard of Care  
CPI = Checkpoint Inhibitor Therapy  
* Preliminary Kaplan-Meier Estimate
Sitravatinib Has Opportunity for Broad Indication Expansion Across Multiple Tumor Types

<table>
<thead>
<tr>
<th>NSCLC</th>
<th></th>
<th></th>
<th>Key Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Build on clinical benefit demonstrated in NSCLC Phase 2 trial (MRTX-500)</td>
<td></td>
<td>Currently Enrolling</td>
</tr>
<tr>
<td></td>
<td>Expand clinical data with another checkpoint inhibitor (tislelizumab) and in the front-line setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sponsor</td>
<td>Phase 1/1b</td>
<td>Phase 2</td>
<td>Phase 3</td>
</tr>
<tr>
<td>BeiGene</td>
<td>2nd line NSCLC (SAPPHIRE) checkpoint refractory</td>
<td>2nd/3rd line NSCLC checkpoint refractory</td>
<td>1st line NSCLC PD-L1 High</td>
</tr>
<tr>
<td></td>
<td>sitravatinib + nivolumab vs. docetaxel</td>
<td>sitravatinib + tislelizumab</td>
<td>sitravatinib + tislelizumab</td>
</tr>
<tr>
<td>BeiGene</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCC and RCC</th>
<th></th>
<th></th>
<th>Key Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pursue indications with strong clinical rationale for sitravatinib</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sponsor</td>
<td>Phase 1/1b</td>
<td>Phase 2</td>
<td>Phase 3</td>
</tr>
<tr>
<td>BeiGene</td>
<td>1st line HCC checkpoint naïve</td>
<td>1st/2nd line RCC checkpoint naïve &amp; refractory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sitravatinib + tislelizumab; Sitravatinib alone</td>
<td>sitravatinib + tislelizumab</td>
<td></td>
</tr>
<tr>
<td>BeiGene</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Indications</th>
<th></th>
<th></th>
<th>Key Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand to additional indications with opportunity to extend treatment options</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sponsor</td>
<td>Phase 1/1b</td>
<td>Phase 2</td>
<td>Phase 3</td>
</tr>
<tr>
<td>BeiGene</td>
<td>2nd/3rd line Bladder checkpoint refractory</td>
<td>RCC and HNSCC (pre-surgical)</td>
<td>Ovarian cancer following platinum</td>
</tr>
<tr>
<td></td>
<td>sitravatinib + nivolumab</td>
<td>sitravatinib + nivolumab</td>
<td>sitravatinib + tislelizumab</td>
</tr>
<tr>
<td>BeiGene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BeiGene</td>
<td>2nd/3rd line Gastric following chemotherapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sitravatinib + tislelizumab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BeiGene</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

POC = proof of concept; NSCLC = non-small cell lung cancer; RCC = renal cell cancer; HCC = hepatocellular carcinoma; HNSCC = head and neck squamous cell carcinoma
Sitravatinib Summary: Multiple Opportunities for I/O Combinations Across A Broad Range of Tumors

Positive Interim Phase 2 Efficacy Data in Checkpoint Refractory NSCLC\(^1\) (n=56)

- 75% of patients demonstrated Clinical Benefit\(^2\)
- 20% of patients achieved a Confirmed Partial or Complete Response

Preliminary Kaplan-Meier estimates\(^3\)
- Median DoR: 9.2 months
- Median PFS: 6.8 months
- Median OS: 15.1 months

Registration Path for 2\(^{nd}\) Line NSCLC: Phase 3 Randomized Trial Initiated in Q2 2019 (SAPPHIRE)
- Sitravatinib + nivolumab vs. docetaxel in 2\(^{nd}\) line checkpoint refractory NSCLC
- Interim Analysis (ORR) for accelerated approval expected by year end 2020
- Primary Analysis (OS) for full approval expected by year end 2021

Phase 2 Clinical Trials in Other Indications
- Checkpoint Refractory Bladder Cancer: Initial Phase 2 data at SITC 2019
- Neo-adjuvant Mechanism of Action Studies: Initial data at SITC 2019
- BeiGene Phase 2 Trials: Initial Phase 2 data in Ovarian expected in Q4 2019; additional data in NSCLC, RCC, HCC, Gastric, Melanoma expected in H1 2020

---

1. Data presented at ESMO 2018 Congress; Data cut-off: 27-Aug-2018; Response data per investigator assessment, response confirmations updated after data cut-off.
2. Clinical Benefit defined as Stable Disease (SD), Partial Response (PR) or Complete Response (CR)
3. DoR = Duration of Response; PFS = Progression Free Survival; OS = Overall Survival
Mirati Therapeutics Has Multiple Potential Value-Driving Catalysts

<table>
<thead>
<tr>
<th>MRTX849</th>
<th>KRAS G12C</th>
<th>KRAS G12C+ Tumors</th>
<th>MRTX849 in KRAS G12C Tumors</th>
<th>Phase 1/2: Clinical Data at AACR-NCI-EORTC (Oct 2019)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sitravatinib</th>
<th>Additional Indications</th>
<th>Sitravatinib + Nivolumab in Checkpoint Refractory NSCLC</th>
<th>Phase 3 Trial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sitravatinib + Nivolumab in Checkpoint Refractory Bladder</td>
<td>Phase 2 Initial Proof of Concept Data at SITC (Nov 2019)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sitravatinib + Tislelizumab in NSCLC, RCC, Ovarian</td>
<td>Phase 2 Initial Proof of Concept Data (BeiGene)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sitravatinib + Nivolumab in Pre-Surgical RCC, HNSCC</td>
<td>Mechanism of Action Data at SITC (Nov 2019)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KRAS G12D</th>
<th>Preclinical KRAS G12D Program</th>
<th>KRAS G12D Program</th>
<th>Lead Candidate Identification (Year End 2019)</th>
</tr>
</thead>
</table>

**Phase 1/2 Expansion Cohort Enrolling**

**Phase 3 Enrolling**

**First POC Q4 2019**

**Lead Identification Q4 2019**

NSCLC = non-small cell lung cancer; CRC = colorectal cancer; RCC = renal cell cancer; HCC = hepatocellular cancer; HNSCC = head and neck squamous cell carcinoma; Tislelizumab (BeiGene’s anti PD-1)
Select Company Financials

<table>
<thead>
<tr>
<th>NASDAQ</th>
<th>MRTX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash (Q3 19)</strong></td>
<td>$454.2M</td>
</tr>
<tr>
<td><strong>Shares Outstanding</strong></td>
<td>49.1M</td>
</tr>
</tbody>
</table>

* Reported cash and investments as of September 30, 2019.
** As of September 30, 2019, includes 39.4 million shares of common stock and pre-funded warrants to purchase a total of 9.7 million shares of common stock. The pre-funded warrants have a per share exercise price of $0.001.
Targeting the genetic and immunological drivers of cancer