

# Unlocking the Proteome to Deliver Next Generation Covalent Medicines



Accelerating best-in-class & first-in-class precision medicines

- Advancing and applying the Frontier<sup>TM</sup> Platform for covalent drug discovery, powered by chemoproteomics and Al
- Strong management team that collectively has discovered and developed over 20 leading medicines
- Oversubscribed \$100M
   Series C in 2024 supports continued progress of clinical-stage pipeline

#### **Wholly Owned Precision Medicines**

KRAS G12C ON+OFF

- PROSPER Ph 1/2 Study

FMC-376

**P53 Y220C activator**- IND 4Q 2025 FMC-220

Pi3Kα-RAS breaker
– IND 2H 2026

FMC-242

**KRAS G12D ON+OFF**- DC 1H 2026 **G12D** 

Oncology & I&I discovery programs

#### **Value Creating Partnership**

For Defined Undruggable Targets

- Since 2020

























### Applying our collective experience to develop breakthrough medicines



Chris Varma, Ph.D. Co-founder, Chair, and CEO

- Co-founder & CEO: Blueprint Medicines (acquired by Sanofi)
- Co-founder: Warp Drive Bio (acquired by Revolution Medicines)
- Investor: Flagship, Third Rock, MPM



Daniel Erlanson, Ph.D. Chief Innovation Officer

- Co-Founder: Carmot Therapeutics (acquired by Roche)
- Thought leader in fragment-based drug discovery
- >70 issued patents and publications



**Kevin Webster, Ph.D.** *Chief Scientific Officer* 

- VP of Oncology Research: AstraZeneca
- Head of Cell Cycle and Apoptosis discovery at BMS
- >20 programs delivered into development, ranging from phase 1 to marketed



Gerardo
Ubaghs
Chief Financial Officer

- Managing Director: Global Healthcare Investment Banking, BofA Securities
- Focus: biopharma & computationallyenabled drug development
- Executed >\$100bn in M&A and >\$12bn in capital markets transactions



Johannes Hermann, Ph.D. Chief Technology Officer

- Global Head, Data Science:
   J&J Medical Devices Technology
- Head, Machine Learning & Advanced Analytics: Janssen



Aaron
Weitzman, M.D.
Acting Chief Medical
Officer

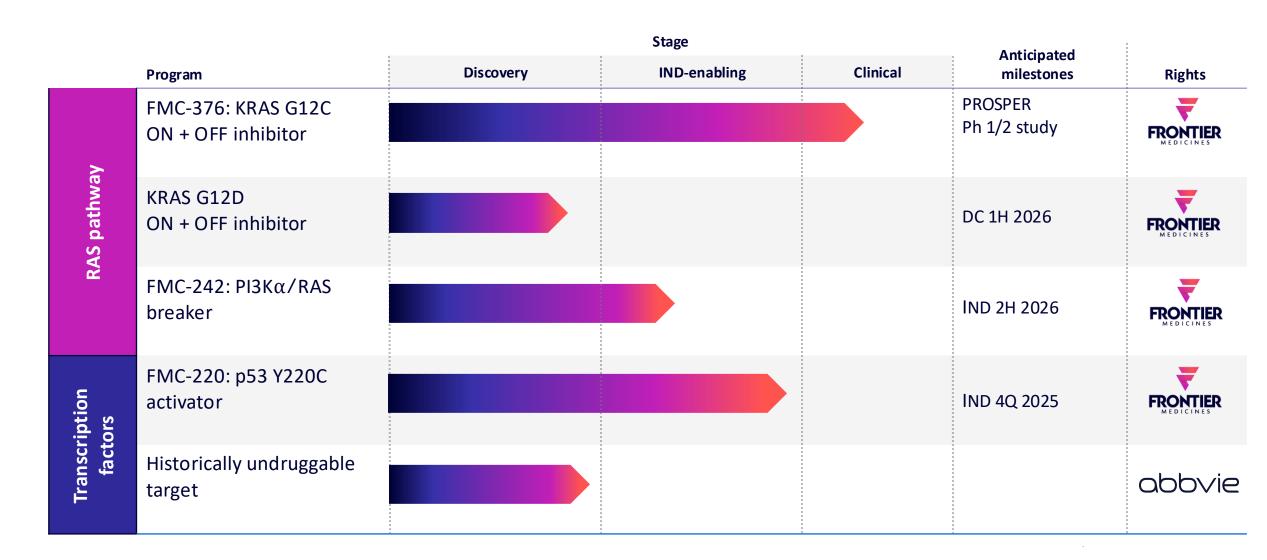
- Served as CMO at Tango
- Led the development of novel anti-cancer agents, advancing Arvinas' first PROTAC and Halda's first RIPTAC to first-in-human Phase 1 trials in solid tumors
- Directed the development of cabozantinib (XL184) at Exelixis



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### Clinical-stage precision pipeline: harnessing the Frontier™ Platform to deliver best-in-class covalent medicines



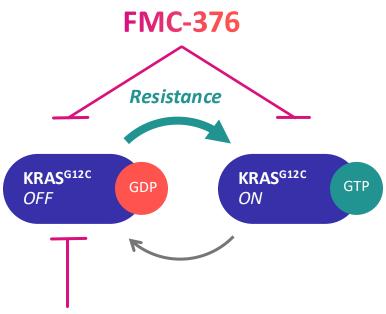
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A covalent small-molecule dual inhibitor that directly and rapidly blocks both on+off (active+inactive) KRAS<sup>G12C</sup> to surpass disease resistance





#### Blocking both ON and OFF KRAS G12C overcomes resistance



#### Sotorasib, adagrasib, and other OFF inhibitors

Significant rates of both innate and acquired resistance, majority shunting KRAS to activated state, e.g.:

- Adaptive resistance
- RTK amplification/ fusions
- KRAS<sup>G12C</sup> amplification
- Loss of GAP function

#### **FMC-376** advantages

Direct dual inhibition that rapidly and completely blocks ON and OFF KRAS G12C

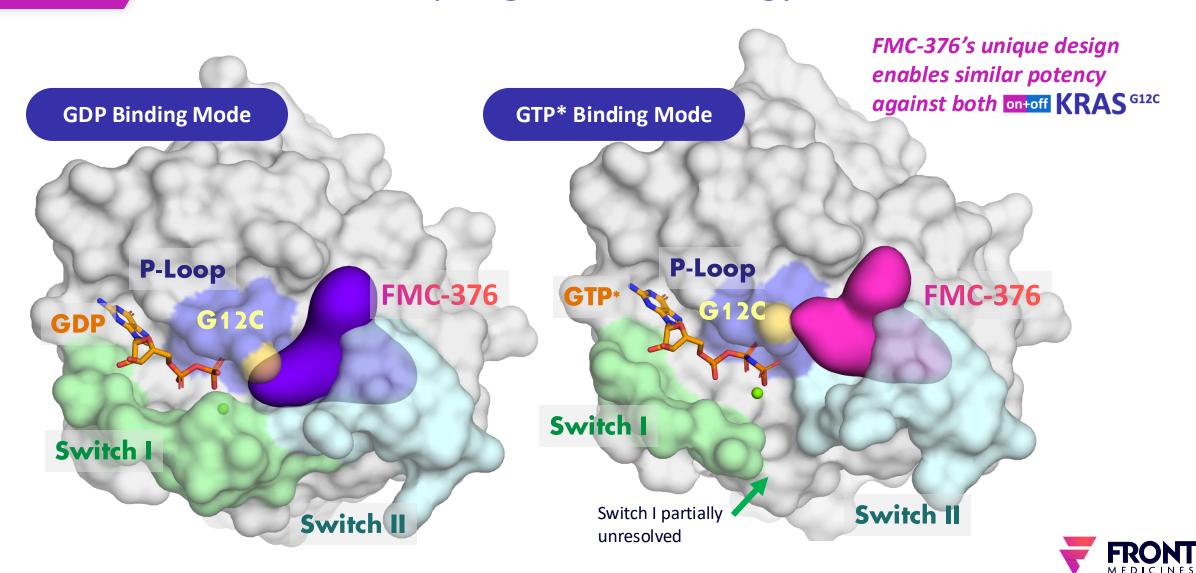
Retains potency in contexts of KRAS activation (e.g. KRAS amp, RTKs, ect.)

Effective in divarasib/sotorasib/ adagrasib resistant models



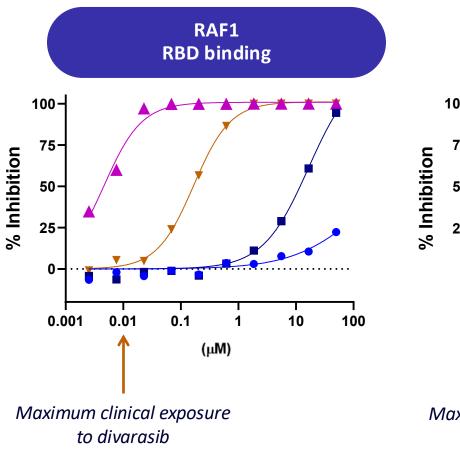


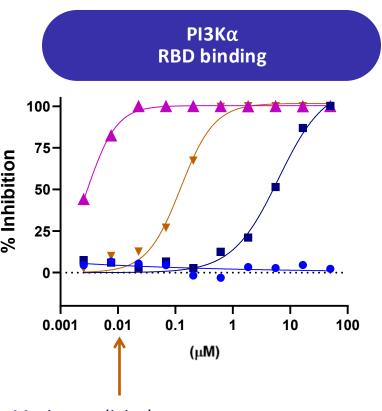
# The Frontier™ Platform enabled FMC-376: the first small molecule adopting two low energy conformations





## FMC-376 potently disrupts key effector protein interactions within our anticipated efficacious clinical dose range





Divarasib requires
>10x the maximum
clinically achievable
dose to lightly touch
key effector protein
interactions

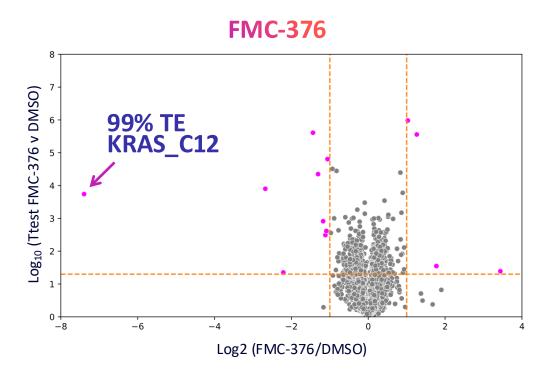
- ★ FMC-376
- Adagrasib
- Sotorasib
- Divarasib

Maximum clinical exposure to divarasib





# FMC-376 delivers superior selectivity for KRAS<sup>G12C</sup> in whole-cell screening



**Best-in-class selectivity** 





## FMC-376 overcomes drivers of KRAS<sup>G12C</sup> inhibitor resistance in NSCLC

Mechanisms of KRAS G12C inhibitor resistance in NSCLC*	% patients	FMC-376 activity
Adaptive resistance†	50%	
KRAS G12C / RTK / PI3Kα / NF1 / p53 / KEAP1 or other amplification/mutations	37.5%	
Secondary K, H, or NRAS / RAF / MEK / MAPK mutations	12.5%	?

KRAS G12C inhibitor efficacy has been limited by the presence of either:

- Adaptive/compensatory signaling (ON-state 1)
- Secondary mutations

**FMC-376 overcomes the majority of innate** and acquired resistance mechanisms due to the ability to inhibit both ON and OFF states of KRAS G12C



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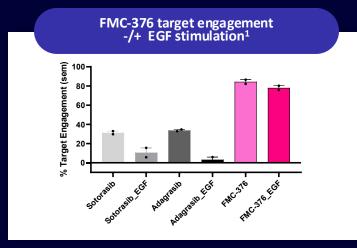
<sup>\*</sup> Cancer Discov (2025) 15 (7): 1325-1349

<sup>†</sup> Patients with no identified mutation

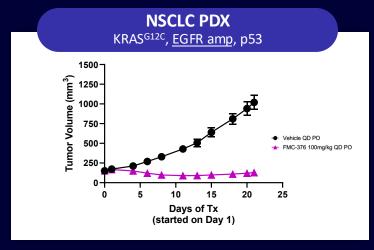


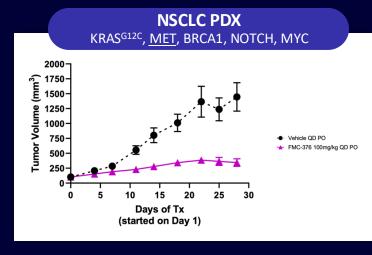
## FMC-376 overcomes drivers of KRAS<sup>G12C</sup> inhibitor resistance in NSCLC

#### 1. Adaptive resistance

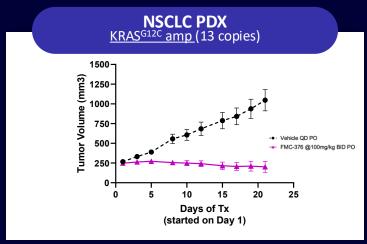


#### 2. RTK amplification/fusions

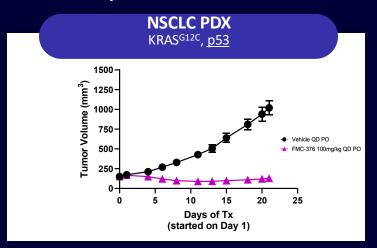




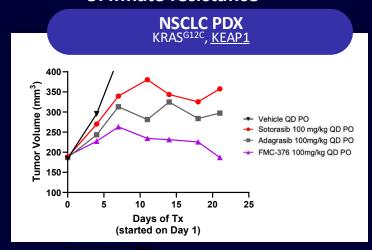
#### 3. KRAS<sup>G12C</sup> amplification



#### 4. p53 mutation/deletion



#### 5. Innate resistance



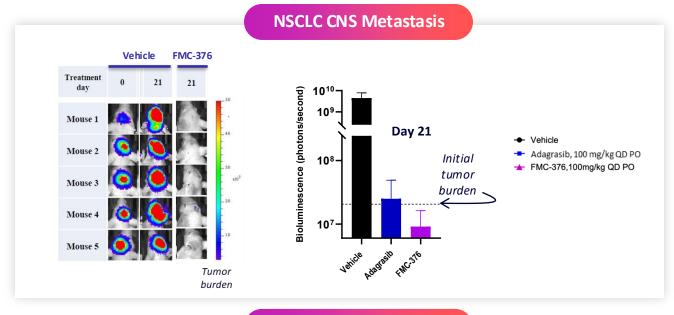
AACR 2023 AACR 2024

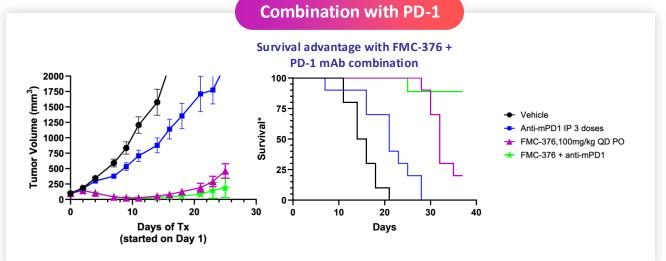


## FMC-376 is optimized for development in 1L and 2+L KRAS G12C NSCLC patients

#### The FMC-376 difference:

- Broadly active across PDX models of NSCLC and in the presence of known drivers of clinical resistance
- Highly effective in a model of NSCLC CNS metastasis
- Increases survival in combination with immune checkpoint inhibition enabling front line NSCLC development strategies





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#### FMC-376: Delivering a best-in-class option to patients

#### The FMC-376 difference:

Rapidly and completely shuts down

on+off KRAS G12C

Addresses the majority of known resistance mechanisms; effective in models of CNS metastasis

to support monotherapy and combination use

Ph 1/2 PROSPER trial actively recruiting



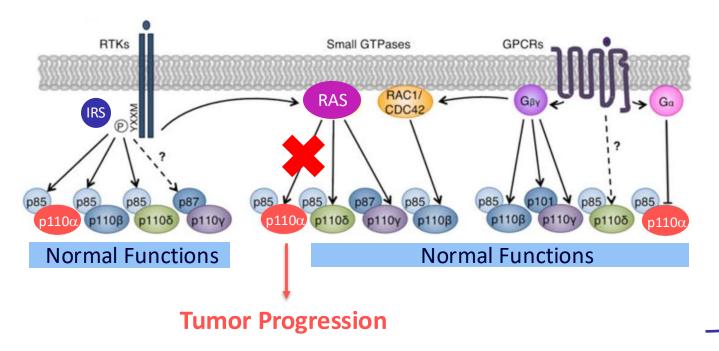
Exquisitely selective, allosteric inhibitor of PI3K $\alpha$ -RAS PPI that spares normal enzymatic activity





# FMC-242 has the potential to become a foundational therapy targeting drug resistance in combination

Frontier™ Platform- identified site and covalent leads that deliver selective, allosteric inhibition of PI3Ka-RAS PPI while sparing normal functions



### Selective inhibition of PI3Ka-RAS interaction delivers

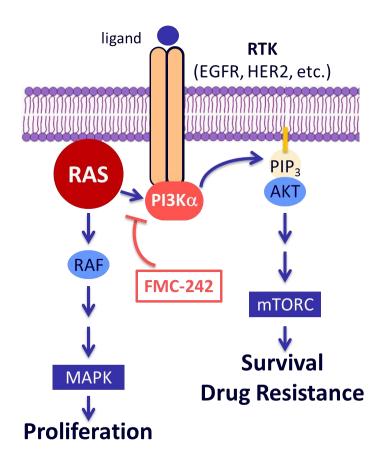
- Monotherapy activity in tumors with RTK activation, RAS mutations, PI3Ka mutations
- In combination, overcomes resistance to targeted therapies including KRAS and EGFR
- Improved tolerability, e.g. spares glucose homeostasis





# Selective inhibition of PI3K $\alpha$ –RAS interaction provides broad mono- and combination therapeutic opportunities

**PI3K**α is an essential cofactor in both KRAS and RTK driven cancers



Monotherapy Strategies	Indications
Receptor Tyrosine Kinase (RTK) driven disease	50% CRC, 35% NSCLC, 20% BCa
KRAS mutant disease	14% of all cancers
PI3Ka mutant disease	~35% BCa
Drug Combination Strategies	Drugs
KRAS inhibitors	FMC-376, daraxonrasib, others
RTK inhibitors	Cetuximab, trastuzumab, osimertinib, others



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# FMC-242 delivers selective allosteric inhibition of RAS binding

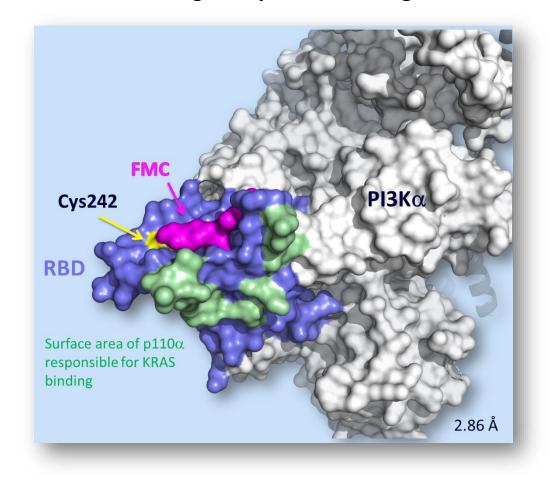
Cys242 is covalently ligandable



Cys242 provides specificity within the PI3K family

PI3Kα: SEQLKLCVLEYQGKPI3Kβ: ---- KEDEVSPYDPI3Kδ: ---- QPLVEQPEDPI3Kγ: SLMDIPESQSEQD

FMC-242 binding disrupts RAS binding interface







### All key complexes of PI3K $\alpha$ / RAS are effectively inhibited

Protein-Protein Interaction can be broken across disease-relevant PI3Kα and RAS mutations

		А	В	С	D
		wt PI3K $lpha$	Pl3Kα (H1047R)	ΡΙ3Κα (Ε542Κ)	Pl3Kα (E545K)
1	KRAS <sup>G12C</sup>	<b>√</b>	<b>√</b>	✓	✓
2	KRAS <sup>G12D</sup>	<b>√</b>	<b>√</b>	✓	✓
3	KRAS <sup>G12V</sup>	<b>√</b>	✓	✓	✓
4	wt KRAS	<b>√</b>	<b>√</b>	✓	✓
5	wt HRAS	✓	nt	nt	nt
6	wt NRAS	<b>√</b>	nt	nt	nt

Both the potency and extent of the PPI-inhibition hold up across pairings in the table

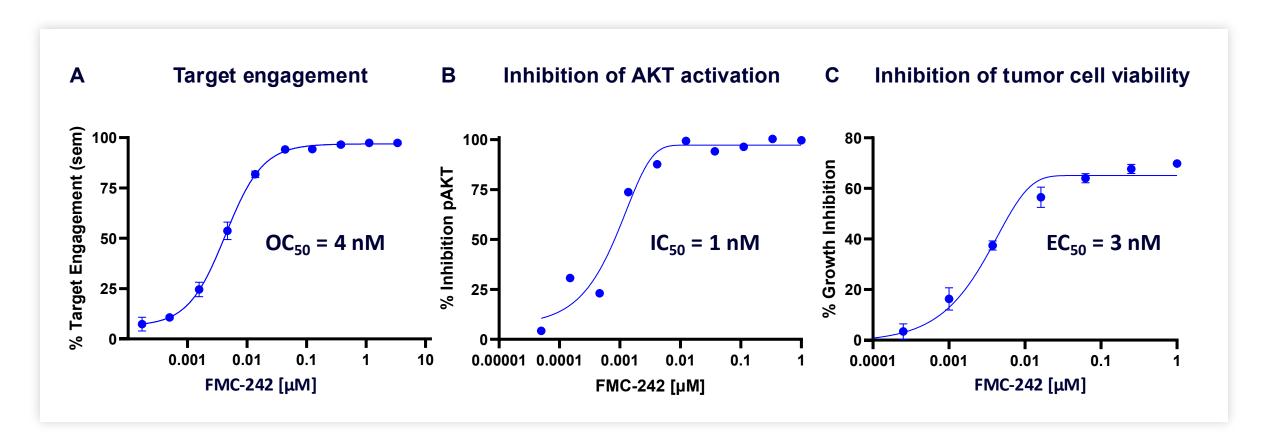


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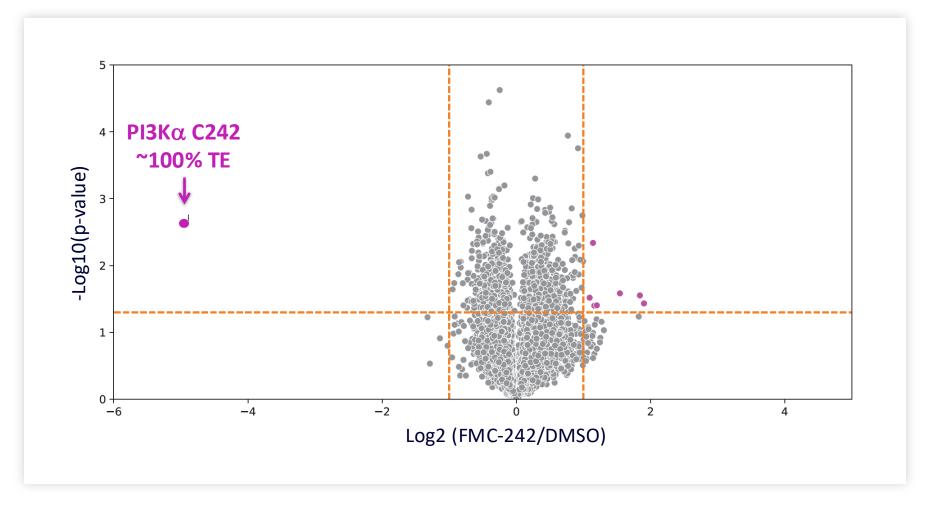
# Covalent engagement of C242 inhibits AKT activation and tumor cell viability







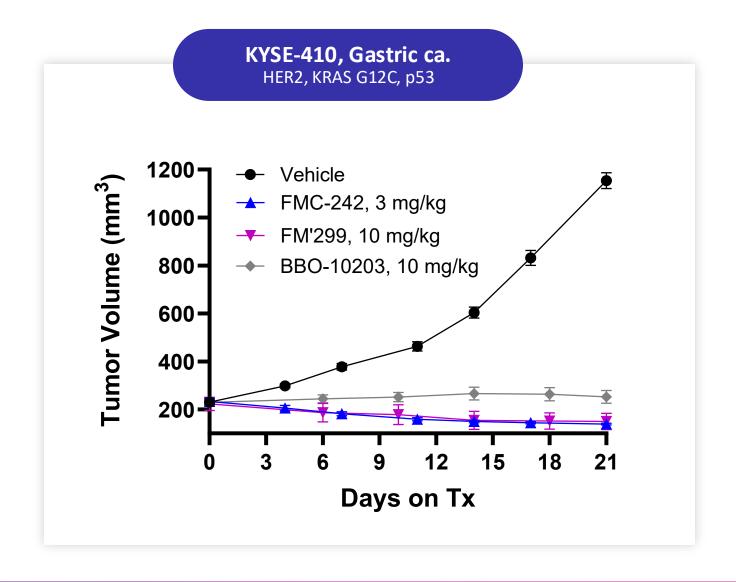
# FMC-242 achieves high selectivity across the proteome and complete target engagement of PI3K $\alpha$







## FMC-242 shows differentiated efficacy driving tumor regression at much lower dose

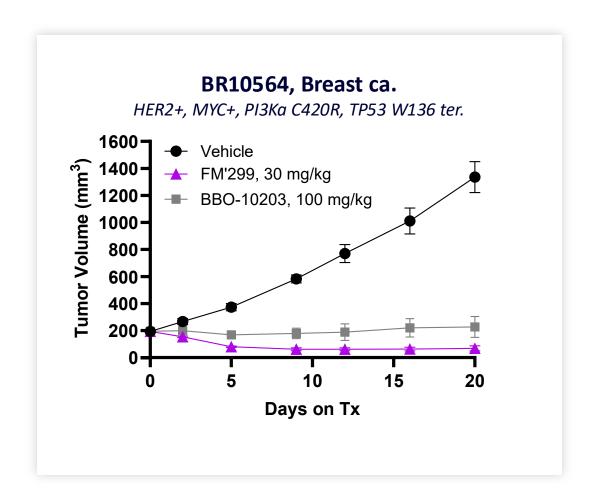


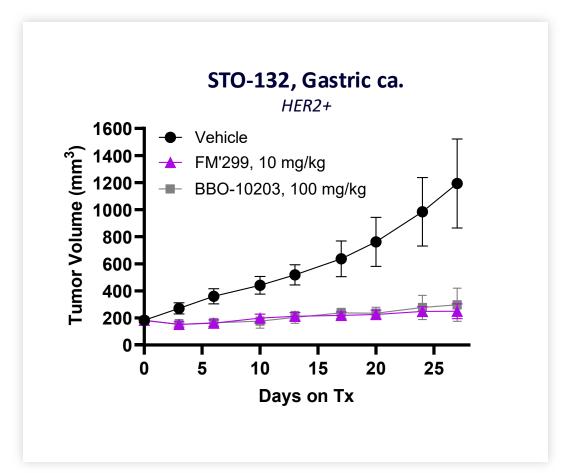




### FMC PI3K $\alpha$ -RAS breakers show strong single-agent activity in HER2+ PDX models

**FMC-242** 

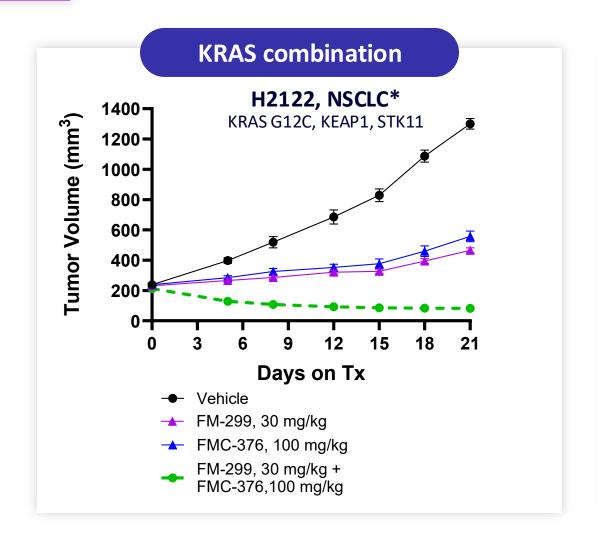


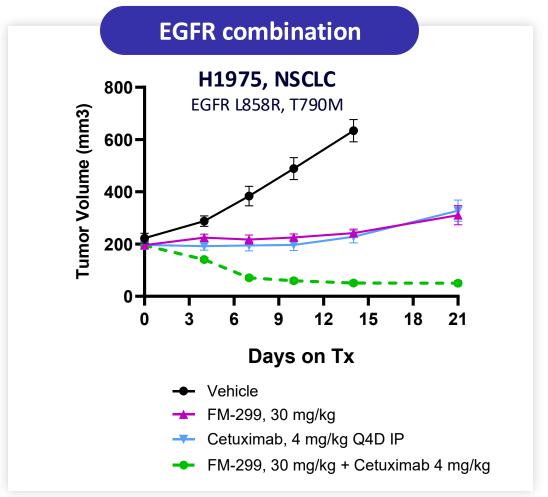






## FMC PI3K $\alpha$ -RAS breakers drive tumor regression in combination with KRAS and EGFR inhibitors



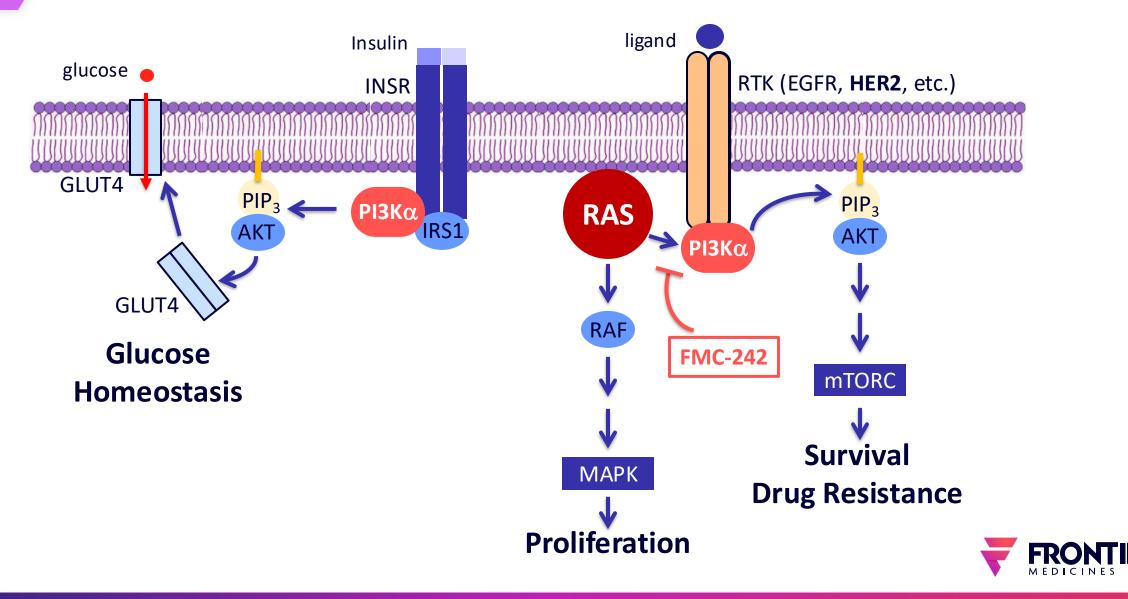






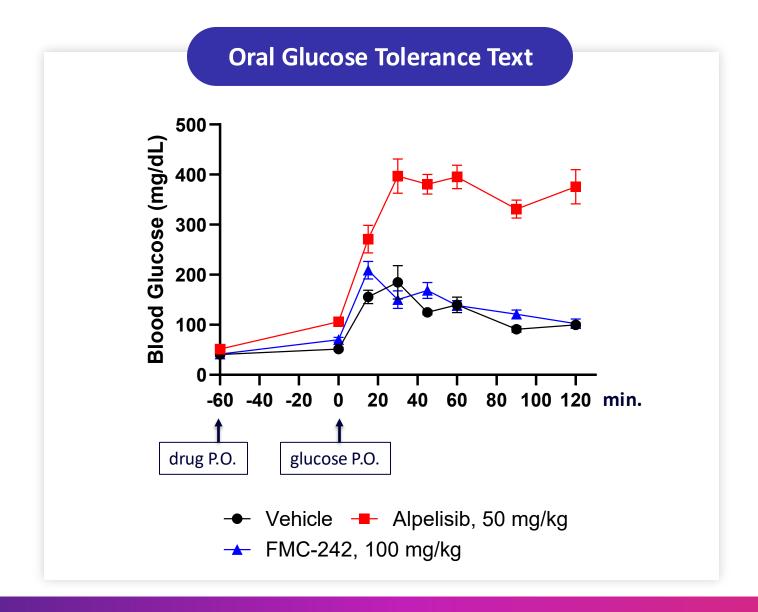
## Inhibition of PI3K $\alpha$ -RAS interactions spares normal PI3K $\alpha$ function

FMC-242





### FMC-242 does not disrupt normal glucose metabolism at ≥ 30x the efficacious dose







# FMC-242 a highly selective, covalent allosteric inhibitor of PI3K $\alpha$ -RAS PPI that spares normal functions

#### PI3Kα-RAS Breaker

#### Preclinical data show:

- Unprecedented potency
- Exceptional target coverage
- Broad inhibition of HER2+, EGFR, RAS mutant tumor cell viability
- Tumor regression
- **CNS** exposure
- Spares glucose metabolism
- Highly selective



### KRAS G12D

A direct, selective, covalent inhibitor of ON + OFF KRAS G12D to deliver durable benefit for patients





KRAS G12D

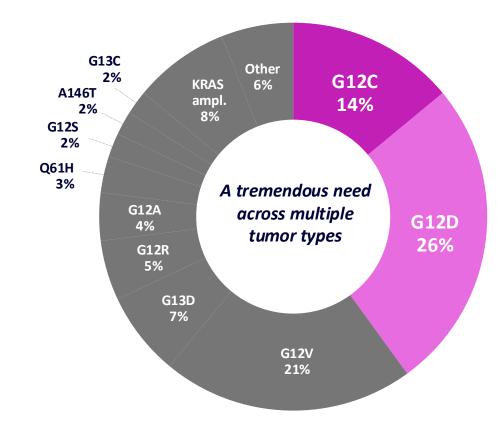
#### A targeted approach to conquer KRAS treatment

#### KRAS<sup>G12D</sup>

is responsible for 55K+ new US cancers annually, including pancreatic, CRC and lung

### **G12C** and **G12D** combined compose 40% of KRAS mutations

Percentage patients, estimated



1 Data are based on projections using estimates of KRAS<sup>G12C</sup> mutation frequency derived from <a href="http://dx.doi.org/10.1016/j.trecan.2017.08.006">http://dx.doi.org/10.1016/j.trecan.2017.08.006</a>, DOI:10.1158/0008-5472.can-19-3682.

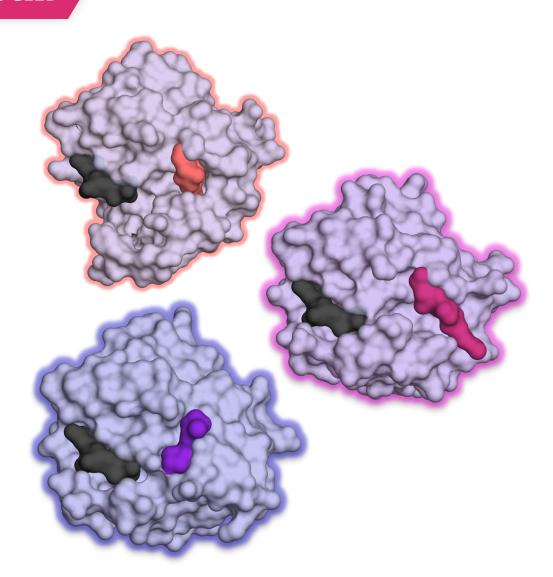


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#### First in class covalent inhibitors of ON+OFF KRAS G12D

KRAS G12D



- KRAS requires prolonged target engagement
  - enabled by covalent chemistry
- Frontier is the industry leader in covalent chemistries > 40 warheads accessing novel amino acids, including Aspartic acid (D)
- Deep structural understanding of KRAS
   > 100 high resolution KRAS-inhibitor structures solved, G12X, wt KRAS
- Covalency delivers KRAS G12D selectivity and targets ON+OFF



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# A direct, selective, covalent inhibitor of ON + OFF KRAS G12D to deliver durable benefit for patients

Differentiated covalent MOA	Benefit
Covalent engagement of 12D	Durable pathway suppression → deeper response
Improved selectivity vs wt KRAS/NRAS/HRAS	Tolerability as a mono and combination therapy
Inhibition of ON +OFF states of 12D	Rapid and durable pathway inhibition overcoming multiple drivers of clinical resistance
Optimized bioavailability, ADME and physical properties	High POS to achieve efficacious exposures in patients



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A potential first and best-in-class, covalent small-molecule p53<sup>Y220C</sup> activator





### p53 Y220C is a clinically validated cancer driver

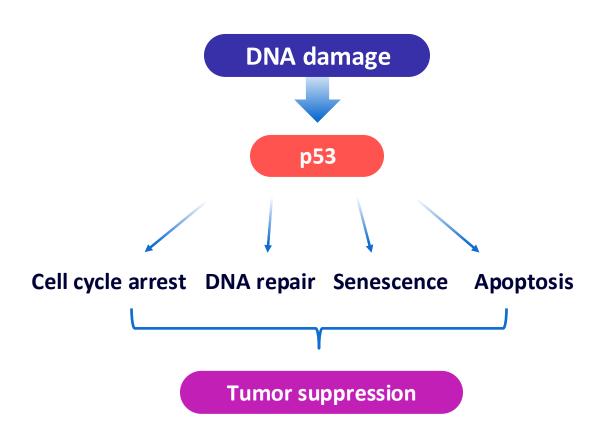
**FMC-220** 

### p53 is one of the most frequently mutated genes in human cancers<sup>1</sup>

It is inactivated by mutation in ~50% of cancers¹

#### p53 Y220C<sup>2,3</sup>

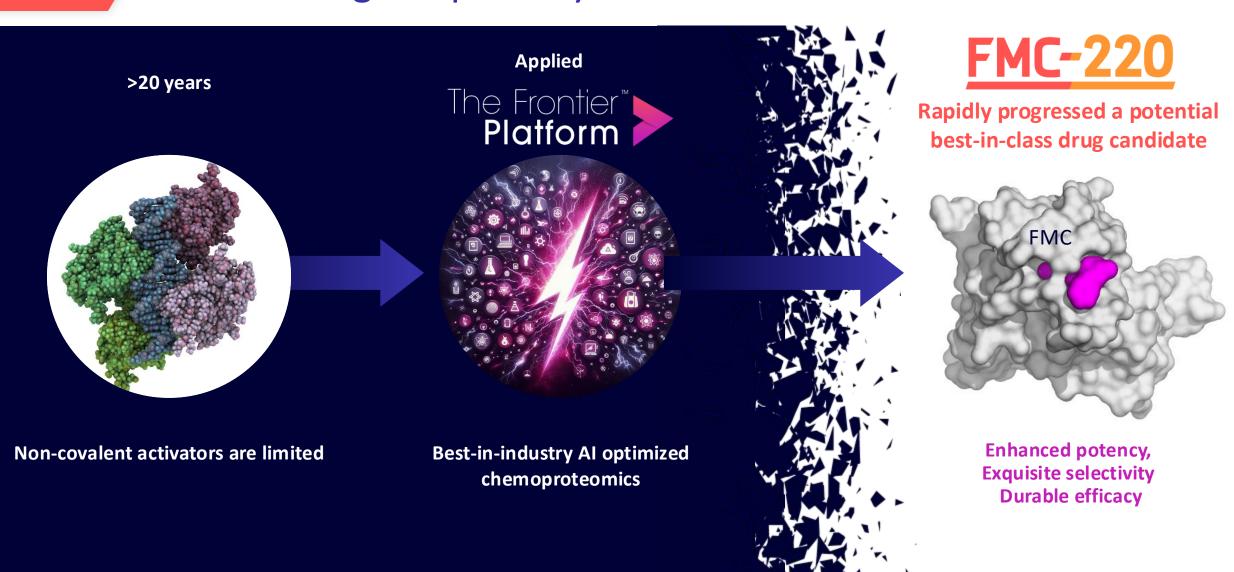
- Key hot-spot missense mutation that destabilizes p53 leading to loss of function
- Affects ~1% of solid tumors including ovarian, breast, lung and others, ~ 125K new patients/ year worldwide





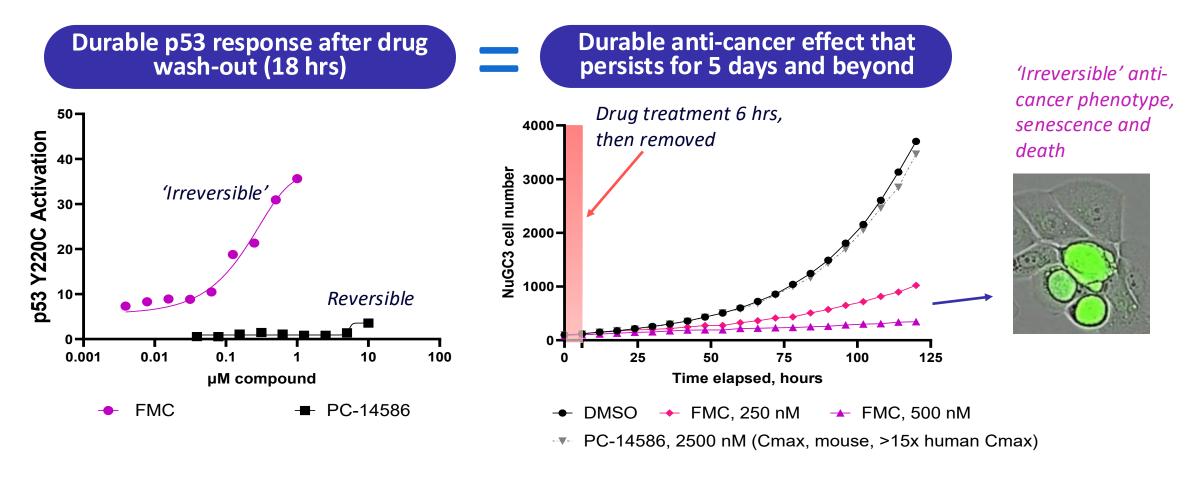


# The Frontier™ Platform solved p53<sup>Y220C</sup> with FMC-220, shattering the potency barrier



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# Differentiated covalent mechanism of action delivers potency with durability

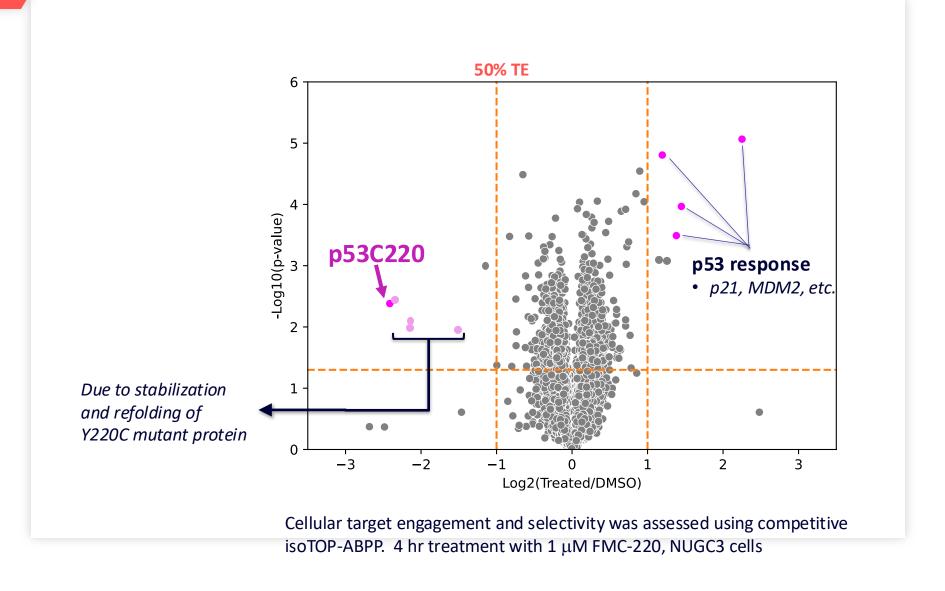




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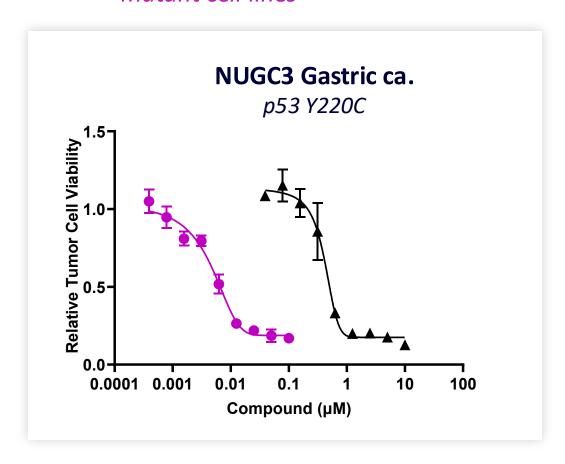
#### FMC-220 is exquisitely selective for p53 Y220C in cells

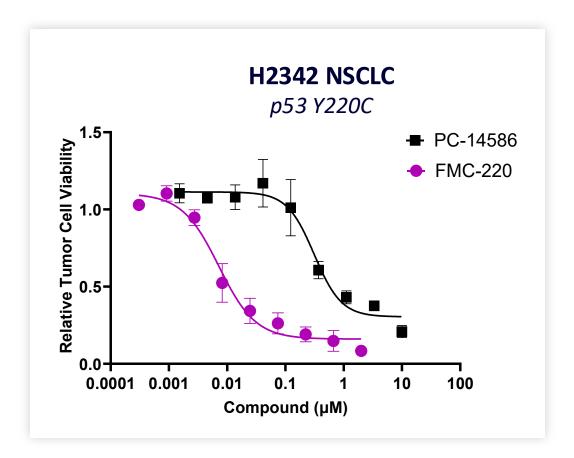




### Unprecedented inhibition of tumor cell proliferation

Potent induction of p53 response translates into superior anti-tumor activity across p53 Y220C mutant cell lines



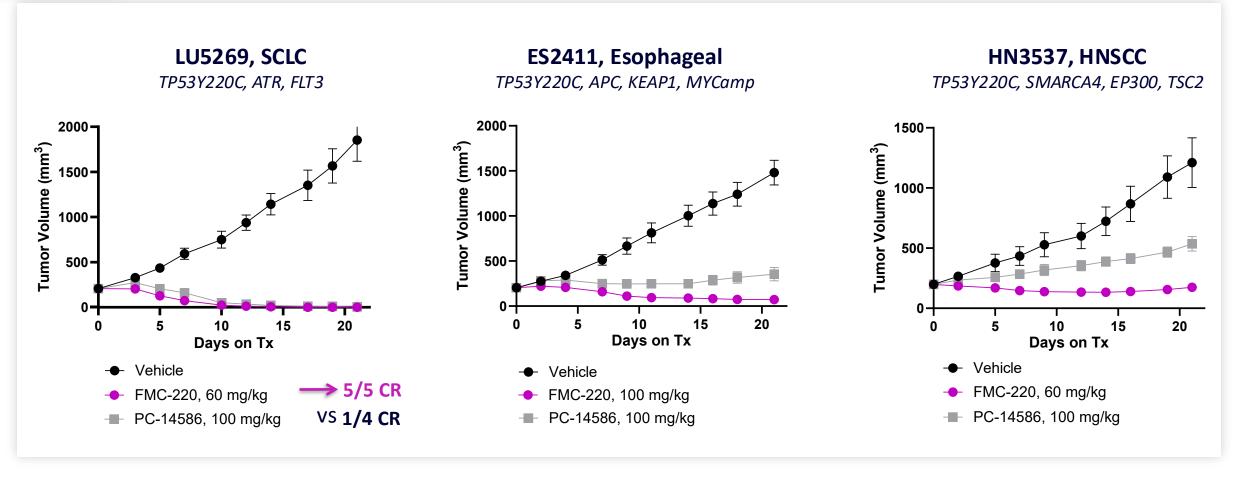


50-100X increased activity relative to PC-14586





#### FMC-220 delivers tumor regression across PDX models



FMC-220 delivers tumor regression regardless of histology or co-mutations



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## FMC-220 Delivers CRs in rezatapopt (PC-14586) relapsed PDX tumors

**FMC-220** 

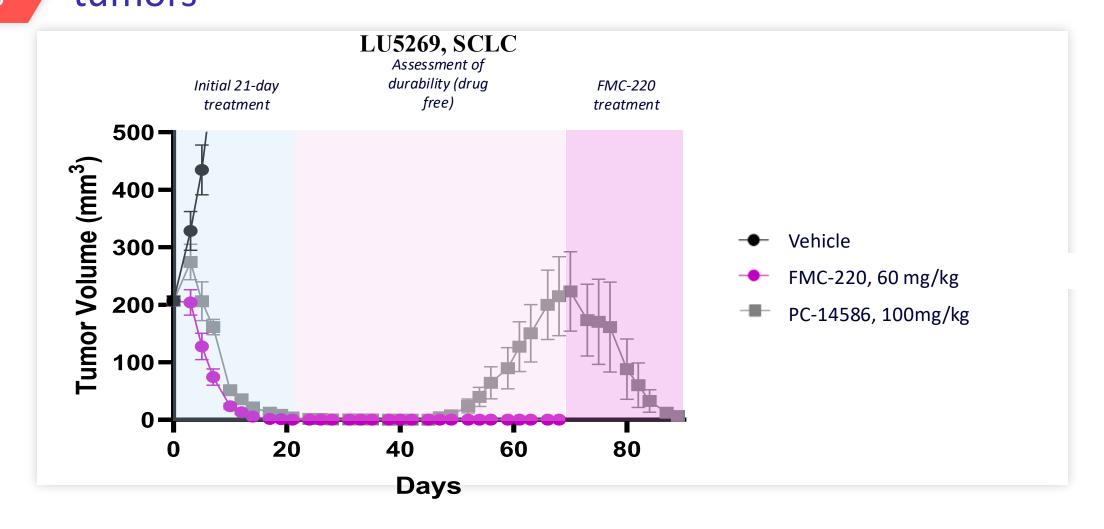


Figure 6: At the end of treatment (day 21), complete regression was achieved in all 5 mice in the FMC-220 treatment group, while only 1 out of 4 mice in the rezatapopt group was tumor free. Mice were monitored for tumor regrowth. All 5 mice in the FMC-220 group remained tumor free while the tumors in the rezatapopt group regrew. FMC-220 was able to completely inhibit the growth of relapsed tumors.





#### FMC-220 Summary

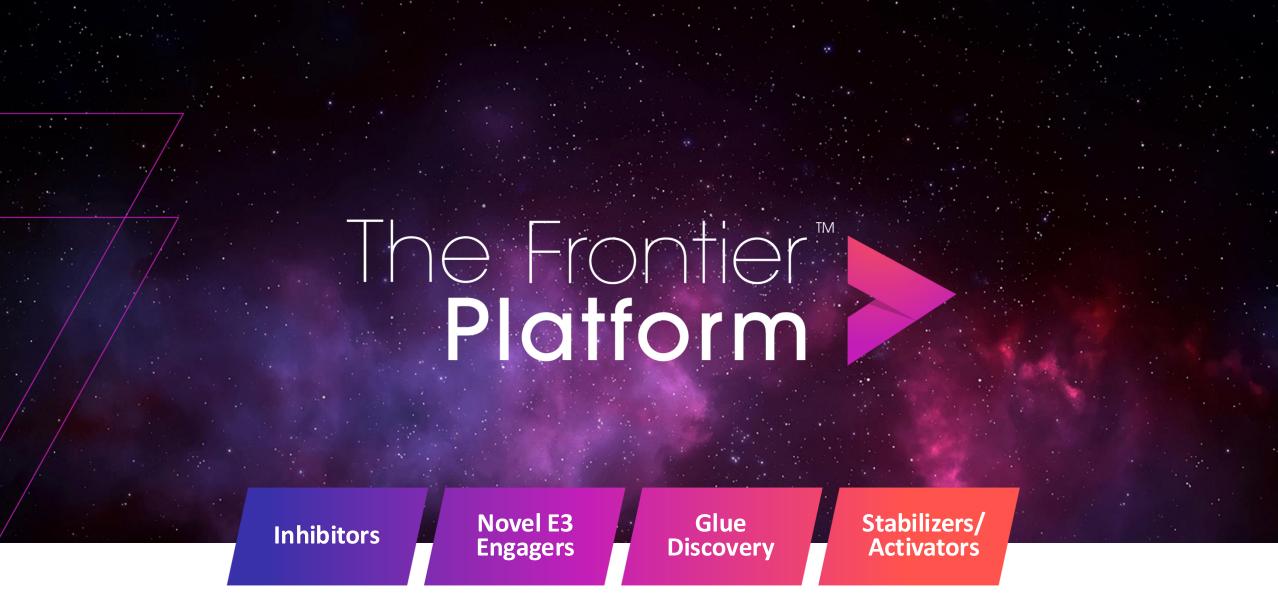
The Frontier Platform<sup>TM</sup>
has enabled discovery
of FMC-220, a first
in class covalent activator
of p53 Y220C

Covalent activation of p53 Y220C provides a positively differentiated mechanism of action that delivers:

- ~100-fold improvements in potency
- Durable pharmacology driving tumor cell senescence and death
- Activity across tumor histology's and \
  in the presence of mutant KRAS
- Durable tumor regression
- IND in 4Q 2025

**Duration drives a meaningful market opportunity** 

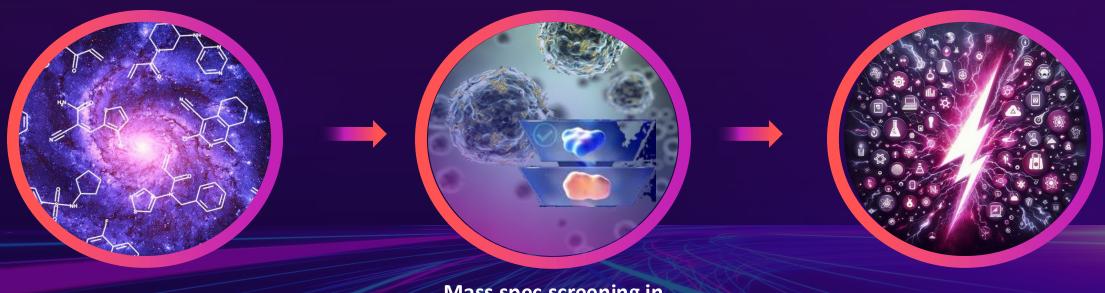




Next generation of covalent based drug discovery enabled by chemoproteomics and AI



# The Frontier™ Platform takes covalent drug discovery to the next level through AI enablement



Al optimized covalent library

Best in industry covalent library built in house

Mass spec screening in living sets

- >8,000 targets with library starting points
- Backbone of Druggability Atlas
- Largest covalent data set, enabling Covalent AI<sup>™</sup>

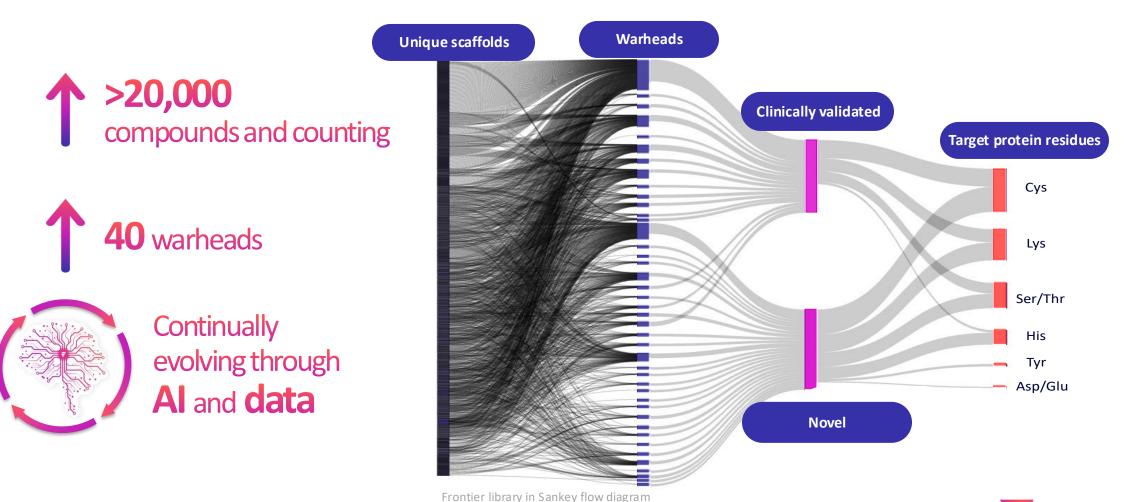
**Covalent AI<sup>TM</sup> enabled acceleration** 

18-24 months to clinical candidate

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# In-house built, highly optimized covalent library provides quality small-molecules for undruggable targets



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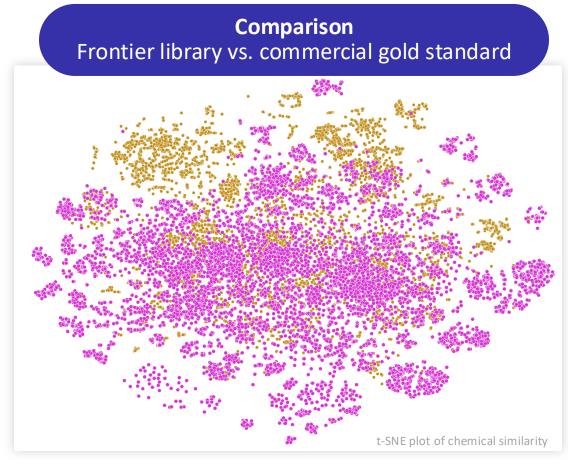


# Driven by AI algorithms, Frontier's in-house library expands access into productive chemical space



#### OUR IN-HOUSE BUILT LIBRARY:

- Goes well beyond traditional libraries to expand access
- Covers productive known chemical space
- 3 Avoids unattractive chemical space





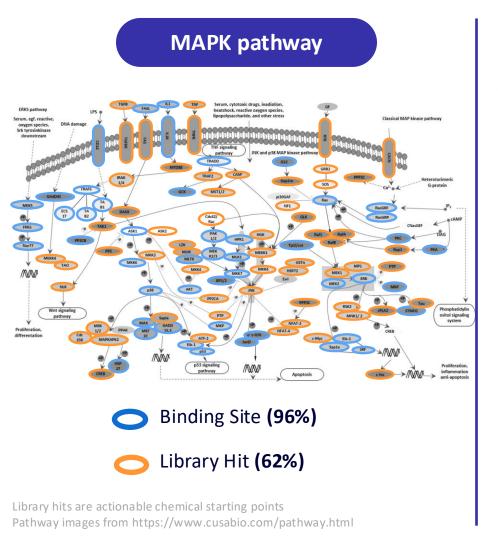
Commercial gold standard

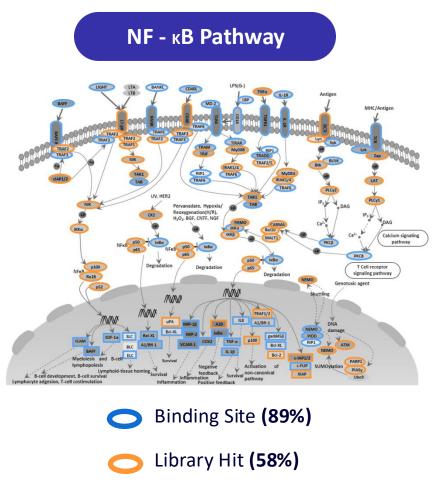
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### Druggability Atlas™ in action: unlocking key disease pathways

Small molecule starting points for targets in all pathways and cell compartments





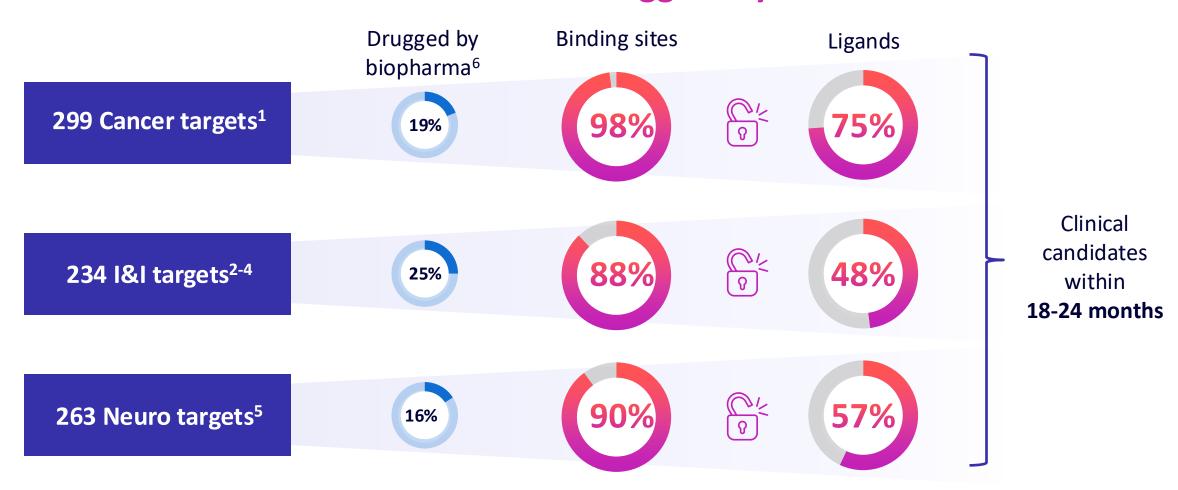
#### Mitochondria Intermembrane Space 49 Targets Binding Site (96%) Outer Library Hit (73%) **Membrane** 112 targets Binding Site (90%) Library Hit (55%) Matrix 522 Targets Inner Binding Site (95%) Membrane Library Hit (69%) 356 Targets Binding Site (85%) Library Hit (38%)

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### The Frontier™ Platform unlocks access to high-value targets across disease areas

#### **Druggability Atlas**<sup>TM</sup>



<sup>1</sup> Bailey et al. 2018 Cell



<sup>2</sup> Kolkhir et al. 2023 Nature Reviews Drug Discovery

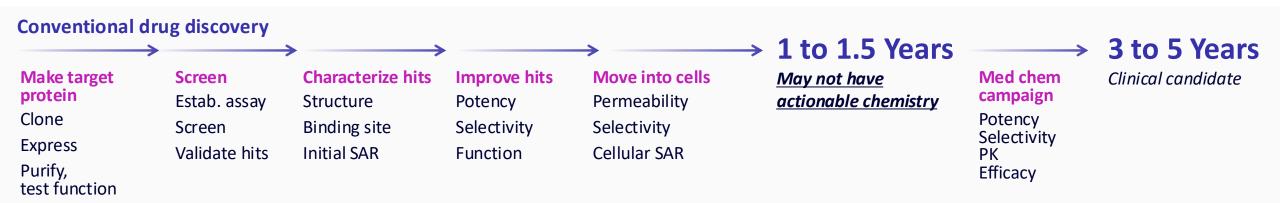
<sup>3</sup> Fang et al. 2022 Nucleic Acids Research

<sup>4</sup> Grissa et al. 2022 Diseases 2.0: Database 5 Annotation by https://www.uniprot.org/

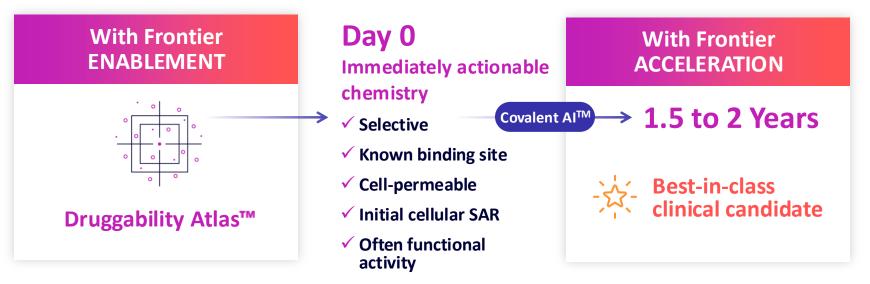
<sup>6</sup> https://www.ebi.ac.uk/chembl/



#### Frontier technology fast forwards drug discovery



#### Frontier's time savings through tech



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