



**FRONTIER**  
MEDICINES

# Unlocking the Proteome to Deliver Next Generation Covalent Medicines



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

- Advancing and applying the **Frontier™ Platform for covalent drug discovery**, powered by chemoproteomics and AI
- **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 with AbbVie

**For Defined Undruggable Targets**  
– Since 2020

## Backed by a strong investor syndicate



# 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 & computationally-enabled 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



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

	Program	Stage			Anticipated milestones	Rights
		Discovery	IND-enabling	Clinical		
RAS pathway	FMC-376: KRAS G12C ON + OFF inhibitor				PROSPER Ph 1/2 study	
	KRAS G12D ON + OFF inhibitor				DC 1H 2026	
	FMC-242: PI3Kα/RAS breaker				IND 2H 2026	
Transcription factors	FMC-220: p53 Y220C activator				IND 4Q 2025	
	Historically undruggable target					abbvie



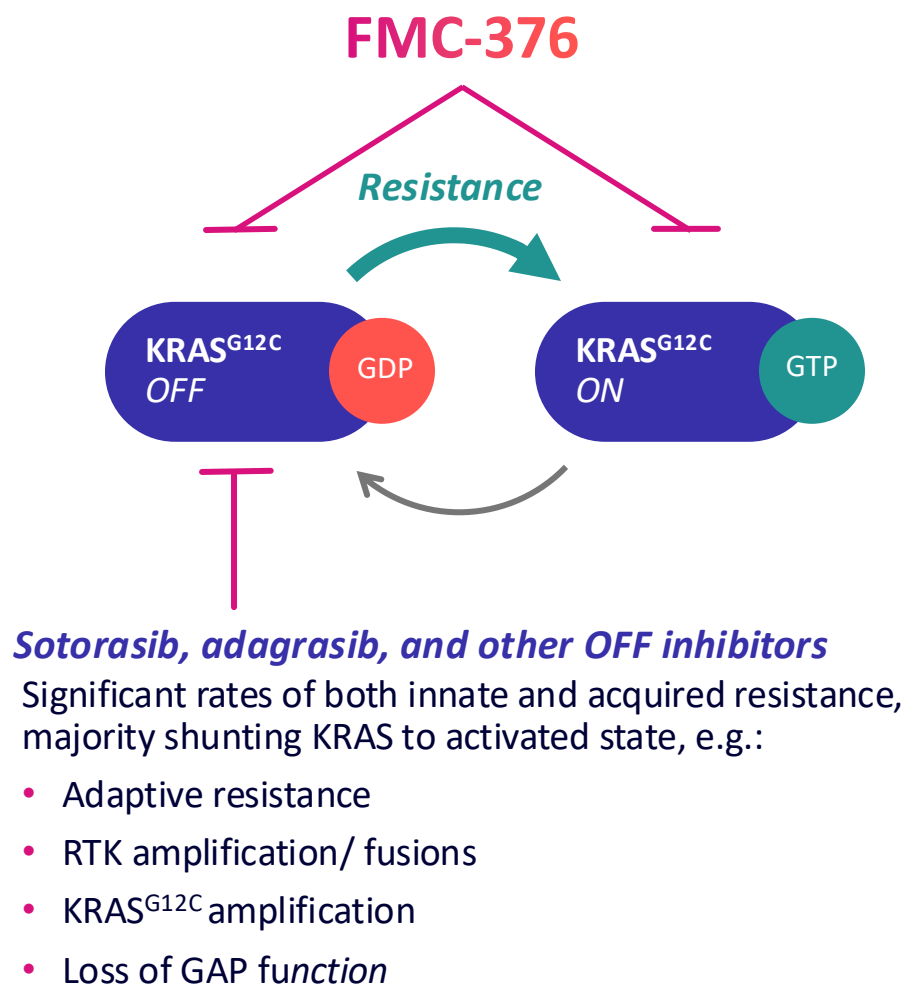
# FMC-376

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



## FMC-376 advantages

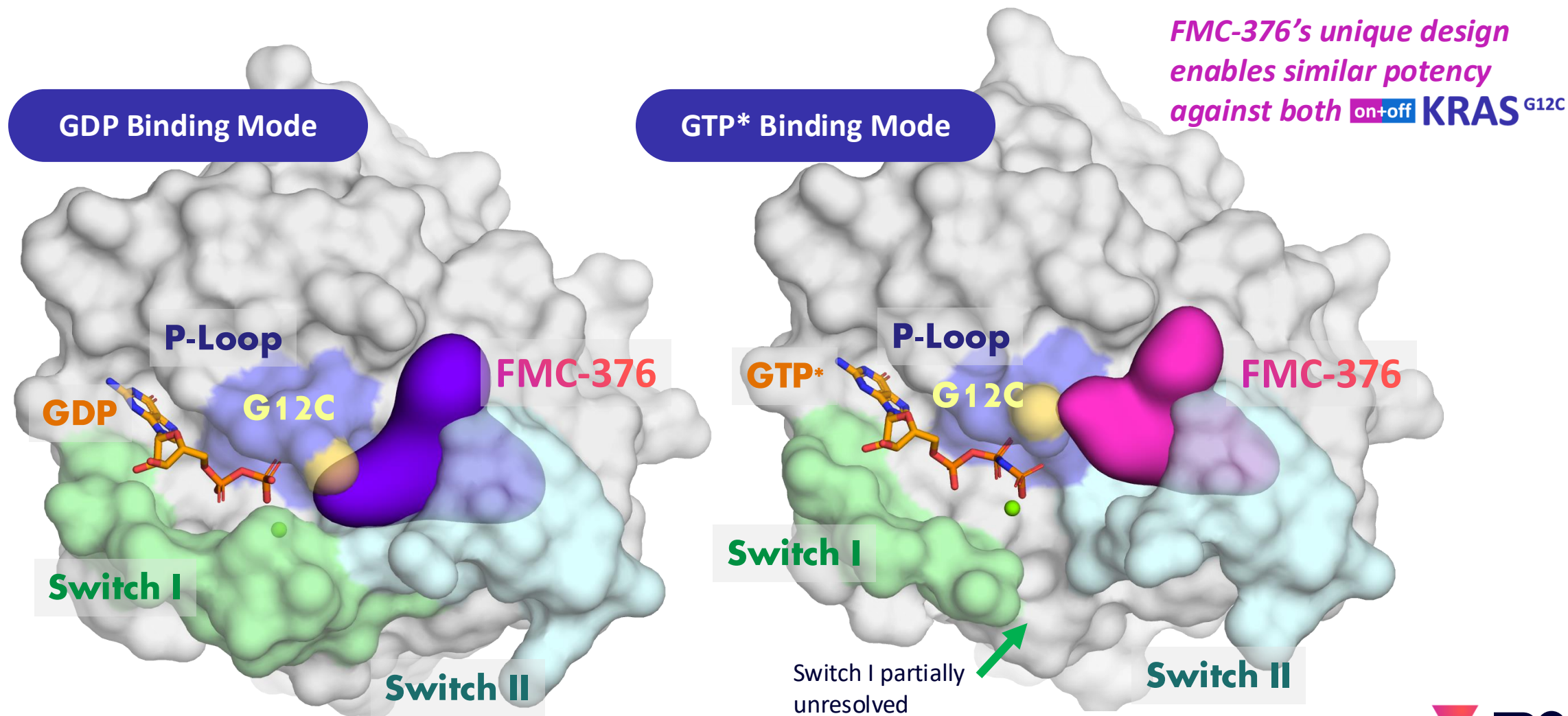
*Direct dual inhibition that rapidly and completely blocks ON and OFF KRAS G12C*

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

*Effective in divarasil/sotorasil/ adagrasil resistant models*

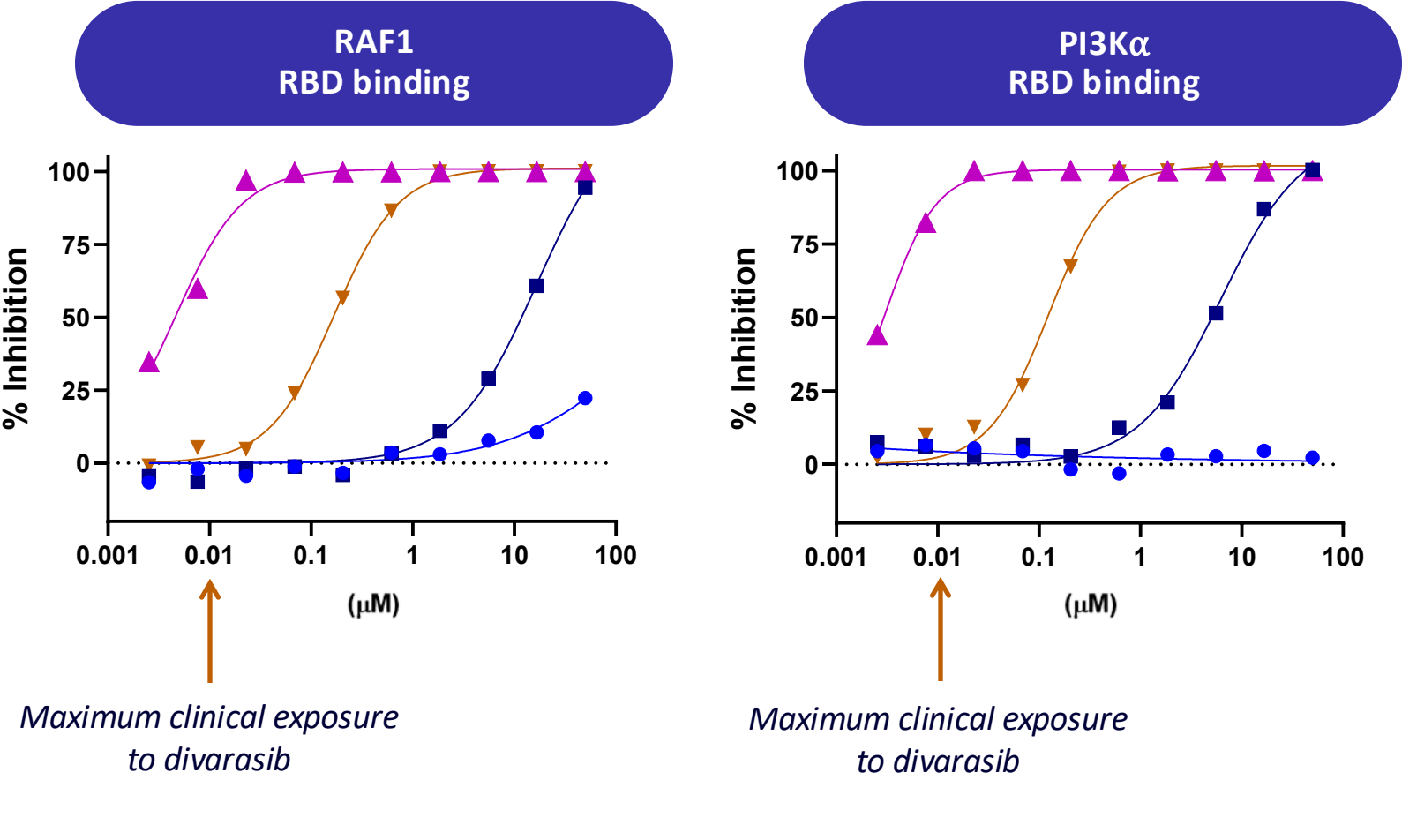


# The Frontier™ Platform enabled FMC-376: the first small molecule adopting two low energy conformations



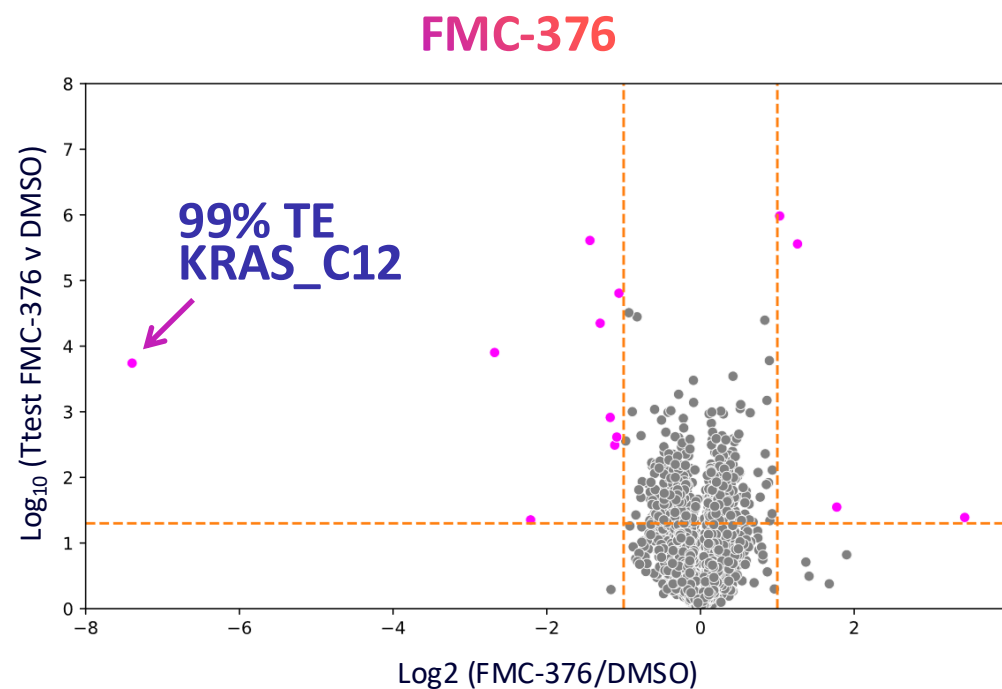


# FMC-376 potently disrupts key effector protein interactions within our anticipated efficacious clinical dose range





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



*Best-in-class selectivity*

MiaPACA-2, 4 hr. treatment with 1 uM drug, competitive isoTOP, significant- p-value < 0.05, log<sub>2</sub>-fold change <-1 or >1



# 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↑)
- 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

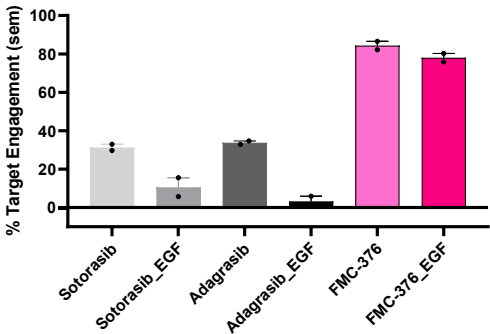
\* *Cancer Discov* (2025) 15 (7): 1325–1349  
 † Patients with no identified mutation



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

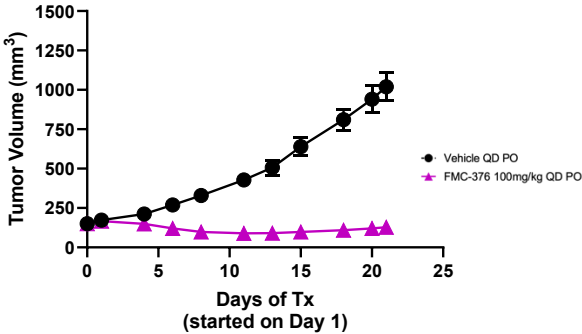
## 1. Adaptive resistance

FMC-376 target engagement  
-/+ EGF stimulation<sup>1</sup>

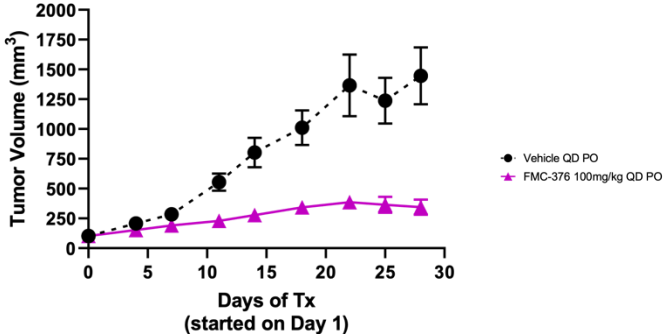


## 2. RTK amplification/fusions

NSCLC PDX  
KRAS<sup>G12C</sup>, EGFR amp, p53

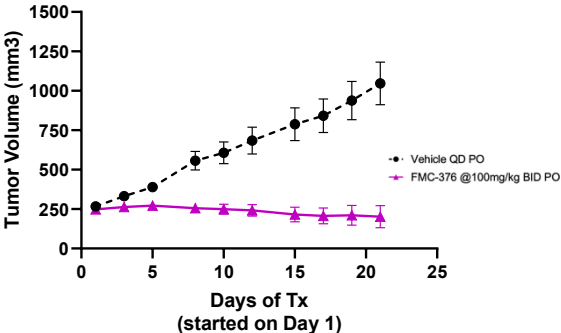


NSCLC PDX  
KRAS<sup>G12C</sup>, MET, BRCA1, NOTCH, MYC



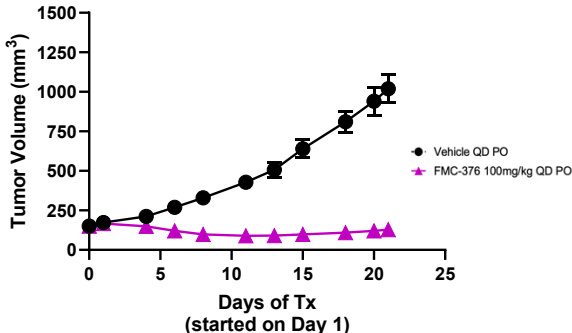
## 3. KRAS<sup>G12C</sup> amplification

NSCLC PDX  
KRAS<sup>G12C</sup> amp (13 copies)



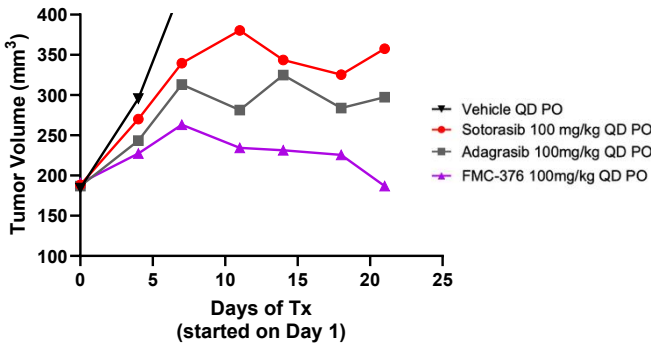
## 4. p53 mutation/deletion

NSCLC PDX  
KRAS<sup>G12C</sup>, p53



## 5. Innate resistance

NSCLC PDX  
KRAS<sup>G12C</sup>, KEAP1



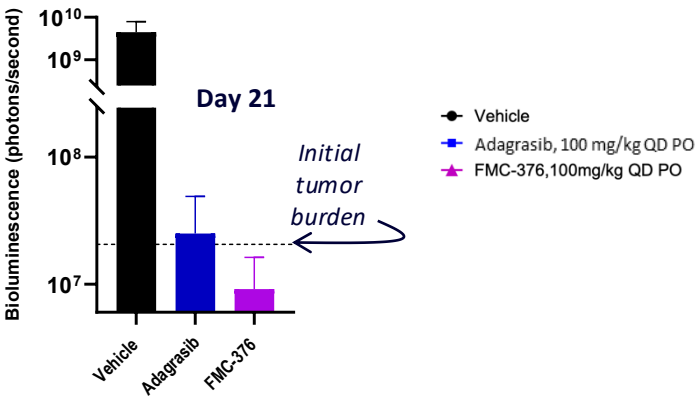
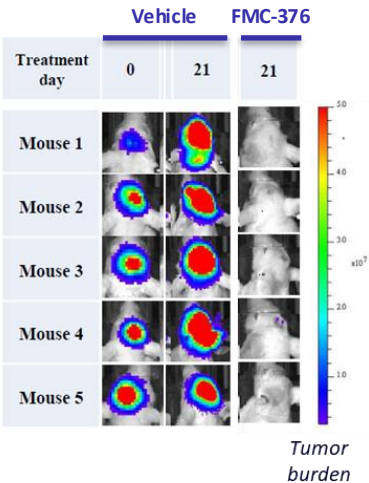


# FMC-376 is optimized for development in 1L and 2+L KRAS G12C NSCLC patients

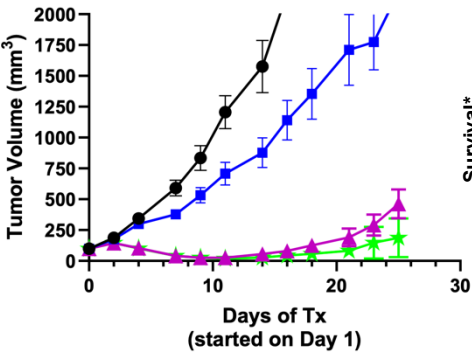
## The FMC-376 difference:

- 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

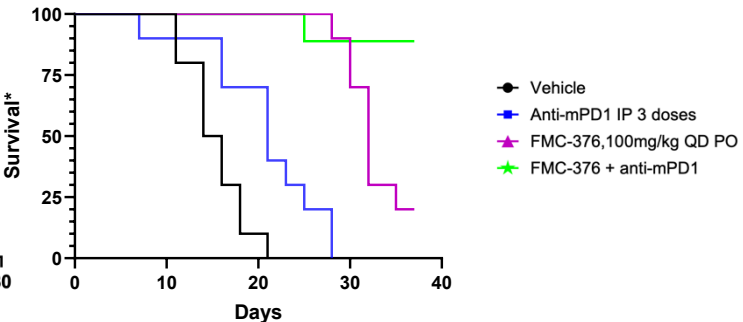
### NSCLC CNS Metastasis



### Combination with PD-1



### Survival advantage with FMC-376 + PD-1 mAb combination





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

## The FMC-376 difference:

**Rapidly and completely  
shuts down**

**on+off KRAS<sup>G12C</sup>**

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

**Exquisitely selective  
to support  
monotherapy and  
combination use**

**Ph 1/2 PROSPER trial actively recruiting**



# FMC-242

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





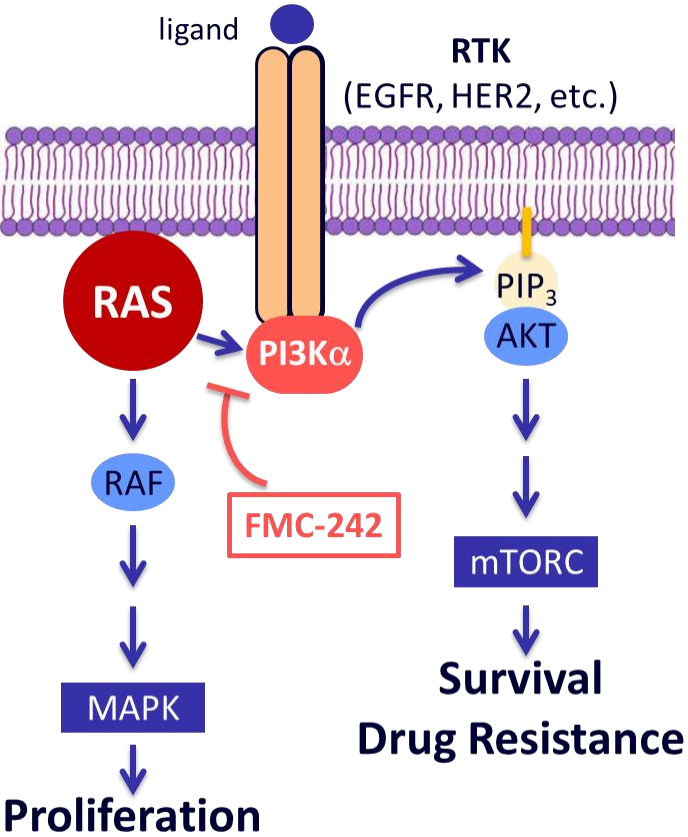
The diagram illustrates the RAS signaling pathway and its role in tumor progression. It shows three main components: RTKs (Receptor Tyrosine Kinases), Small GTPases, and GPCRs (G-protein-coupled receptors). RTKs activate the IRS (Insulin Receptor Substrate) via phosphorylation (P). The IRS then activates RAS. RAS, in turn, activates the RAC1/CDC42 pathway, which leads to the activation of Gβγ and Gα. Gβγ and Gα then activate various downstream effectors, including p85, p110α, p110β, p110δ, p110γ, and p110δ. The diagram highlights that RAS is a key component in the signaling pathway that leads to tumor progression, as indicated by the red 'X' and the red arrow pointing to the text 'Tumor Progression'.

- 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 $\alpha$  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



# FMC-242 delivers selective allosteric inhibition of RAS binding

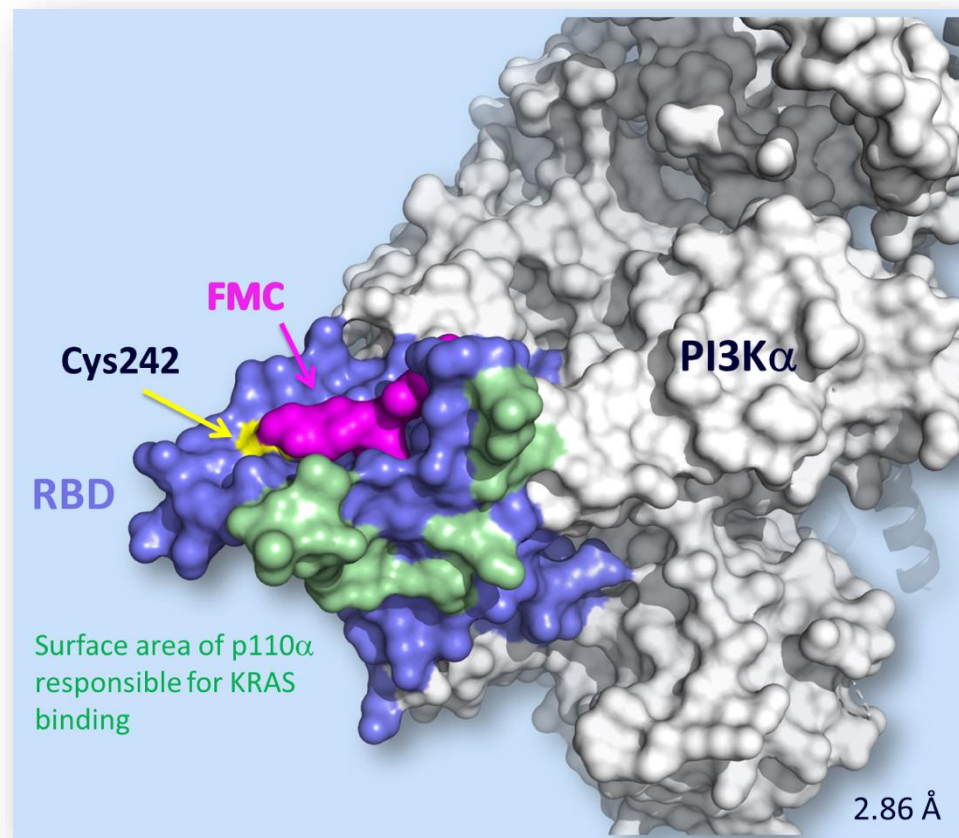
Cys242 is **covalently ligandable**



Cys242 provides  
**specificity within the PI3K family**

**PI3K $\alpha$** : SEQLKL**C**VLEYQGK  
 PI3K $\beta$ : - - - - KEDEVSPYD  
 PI3K $\delta$ : - - - - QPLVEQPED  
 PI3K $\gamma$ : SLMDIPESQSEQD

FMC-242 binding **disrupts RAS binding interface**





# All key complexes of PI3Kα / RAS are effectively inhibited

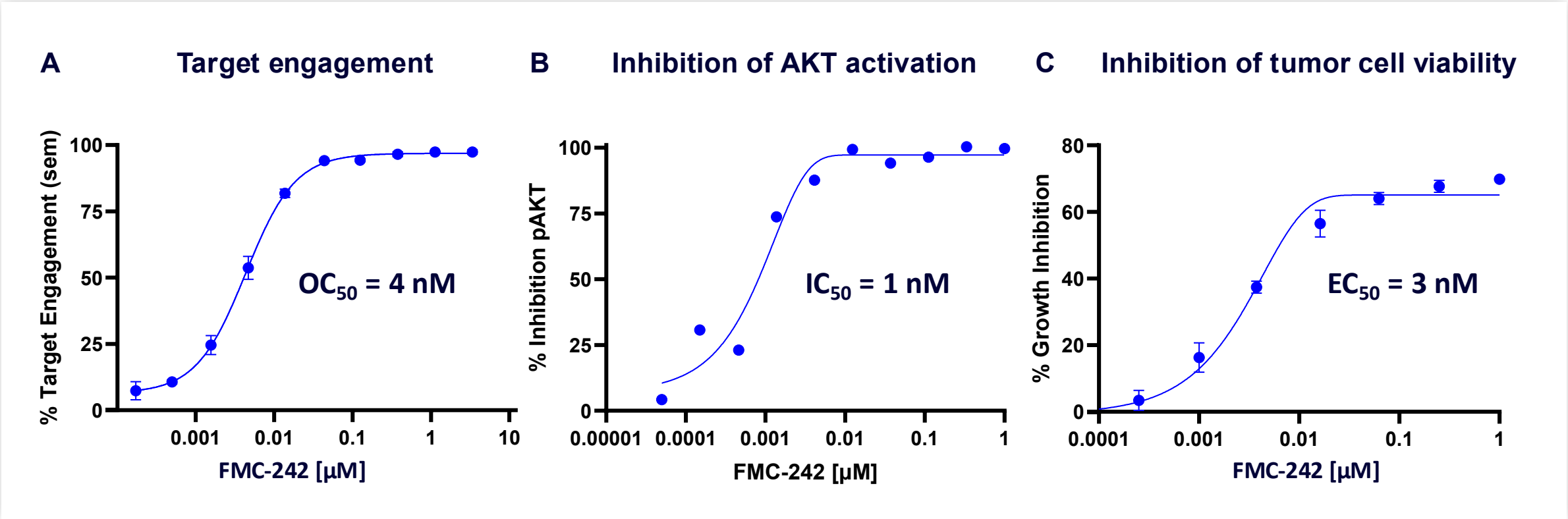
*Protein-Protein Interaction can be broken across disease-relevant PI3Kα and RAS mutations*

		A	B	C	D
		wt PI3Kα	PI3Kα (H1047R)	PI3Kα (E542K)	PI3Kα (E545K)
1	KRAS <sup>G12C</sup>	✓	✓	✓	✓
2	KRAS <sup>G12D</sup>	✓	✓	✓	✓
3	KRAS <sup>G12V</sup>	✓	✓	✓	✓
4	wt KRAS	✓	✓	✓	✓
5	wt HRAS	✓	nt	nt	nt
6	wt NRAS	✓	nt	nt	nt

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

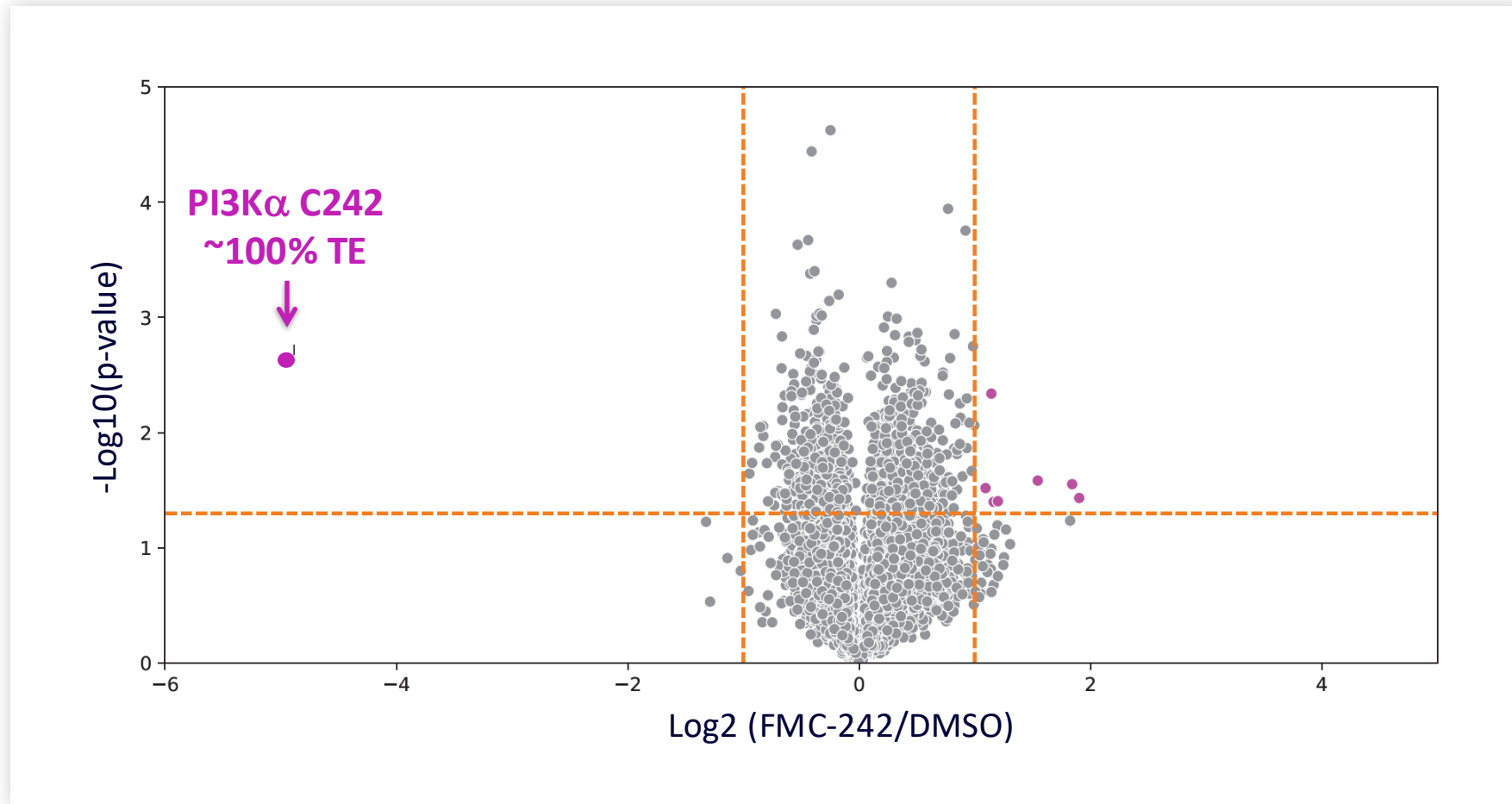


# Covalent engagement of C242 inhibits AKT activation and tumor cell viability





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

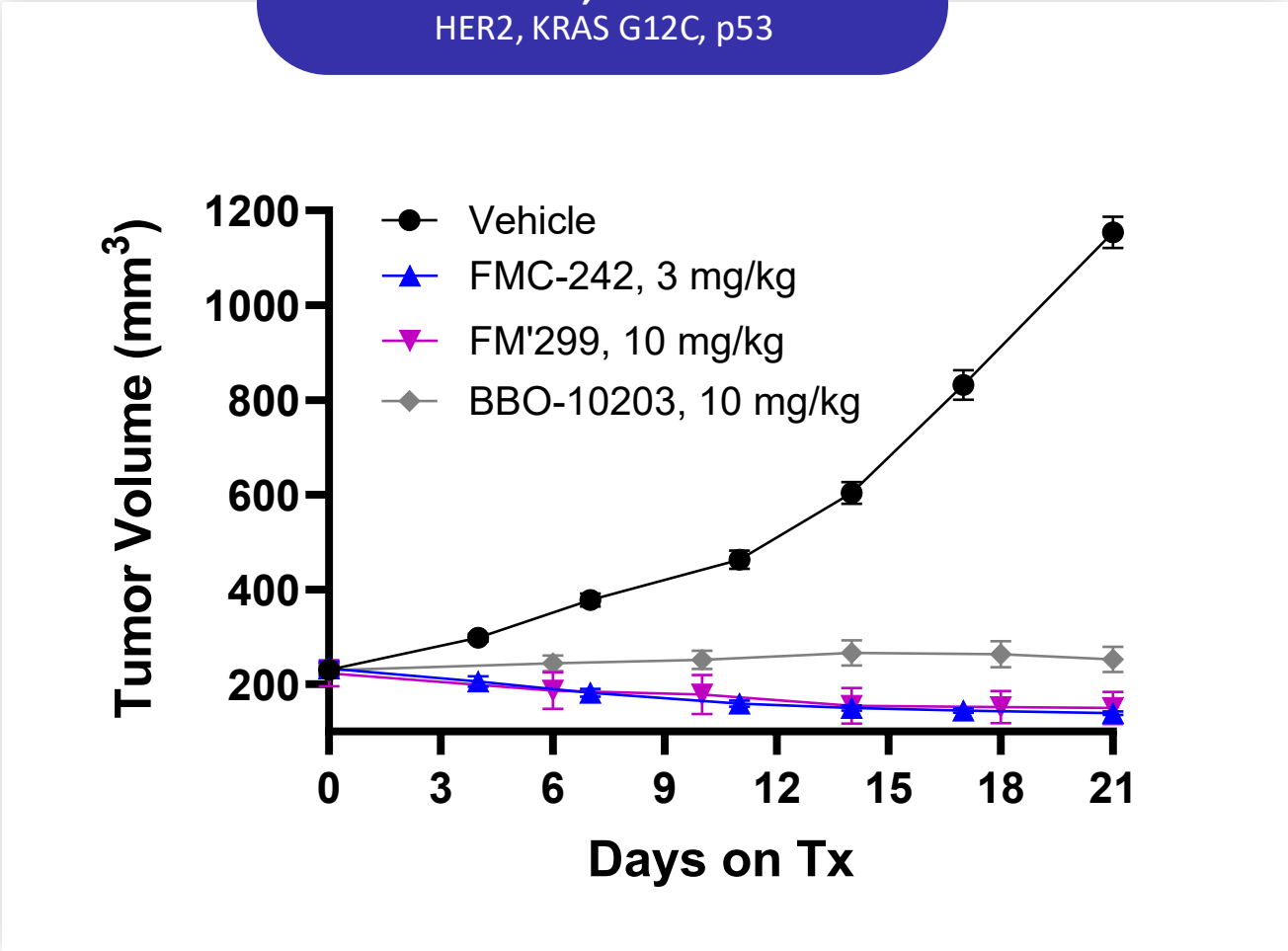


Volcano plot depicting selectivity of FMC-242 after a 2  $\mu\text{M}$  (465X the  $\text{OC}_{50}$ ) treatment for 2hrs in KYSE-410 cells. Orange dashed lines represent significance thresholds of a 2X fold change and a p-value of 0.05. Each dot represents a quantified cysteine (n = 22,620)



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

KYSE-410, Gastric ca.  
HER2, KRAS G12C, p53

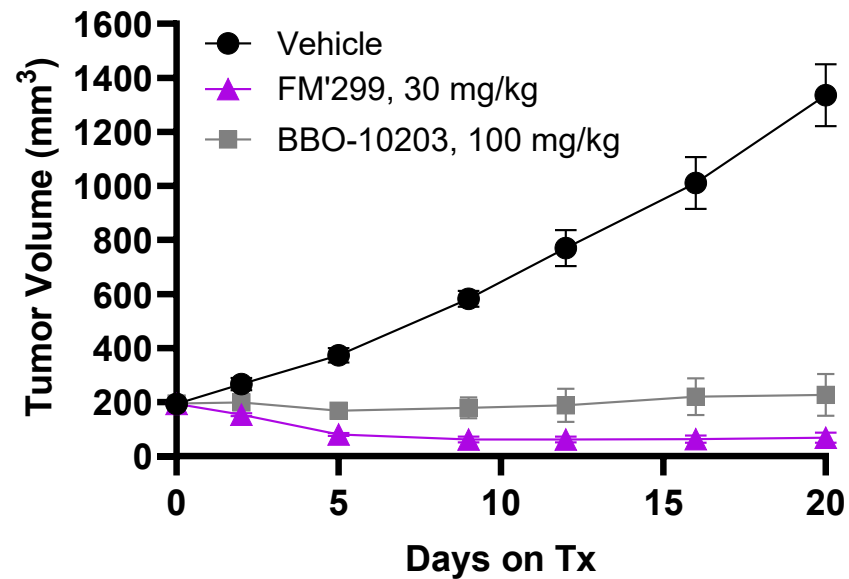




# FMC PI3K $\alpha$ -RAS breakers show strong single-agent activity in HER2+ PDX models

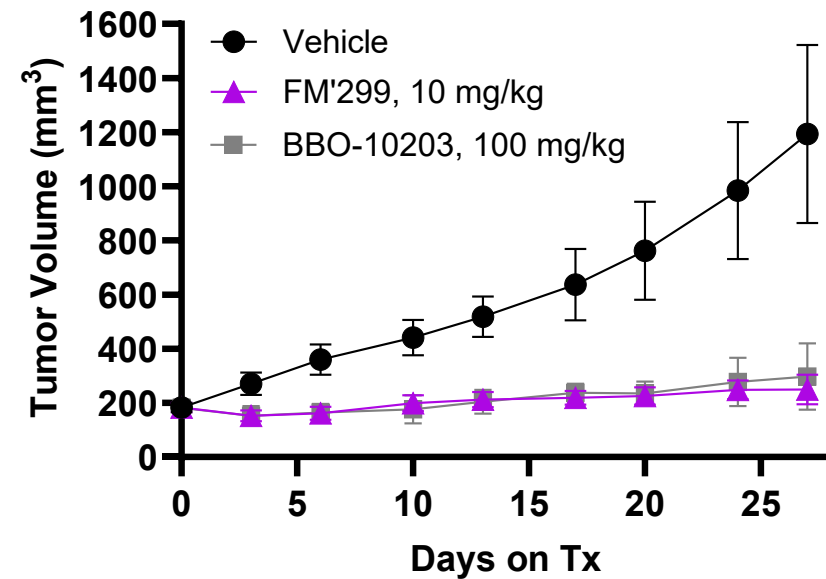
## BR10564, Breast ca.

*HER2+, MYC+, PI3K $\alpha$  C420R, TP53 W136 ter.*



## STO-132, Gastric ca.

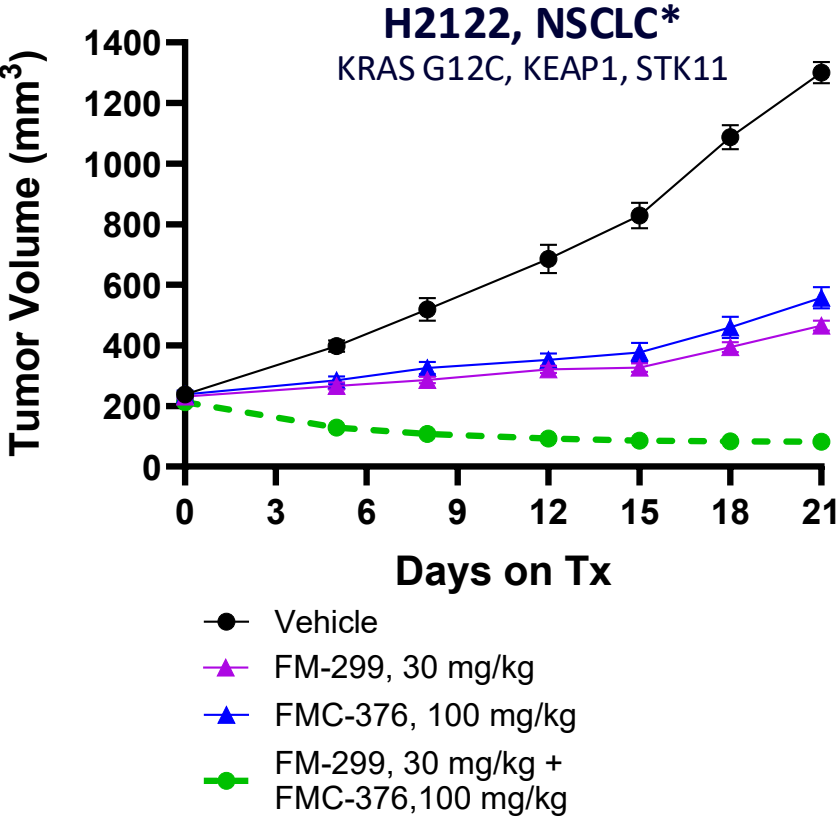
*HER2+*



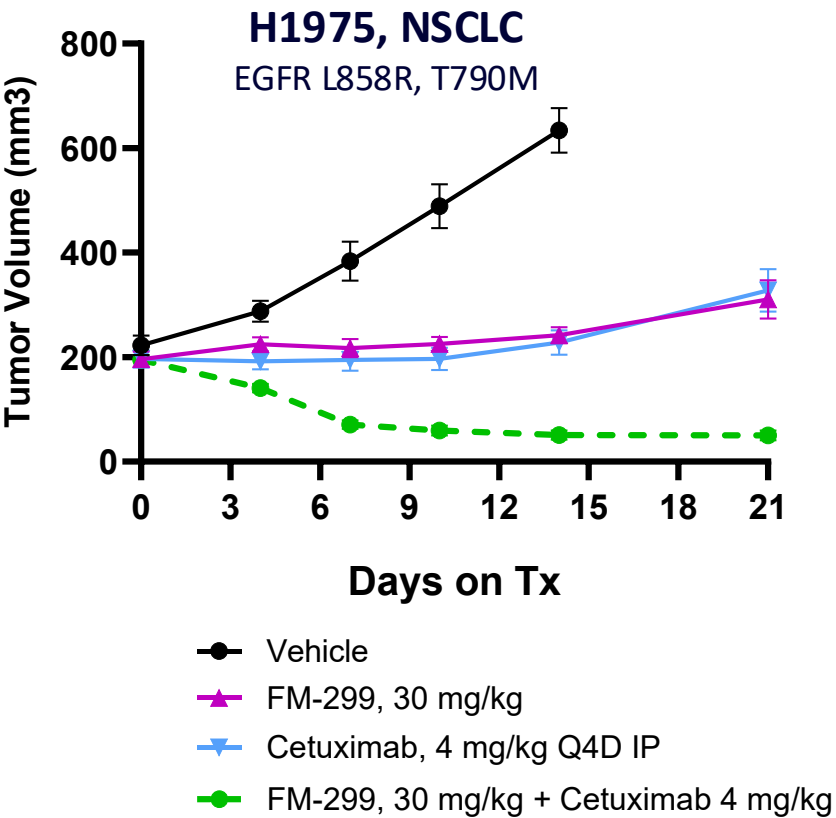


# FMC PI3K $\alpha$ -RAS breakers drive tumor regression in combination with KRAS and EGFR inhibitors

## KRAS combination



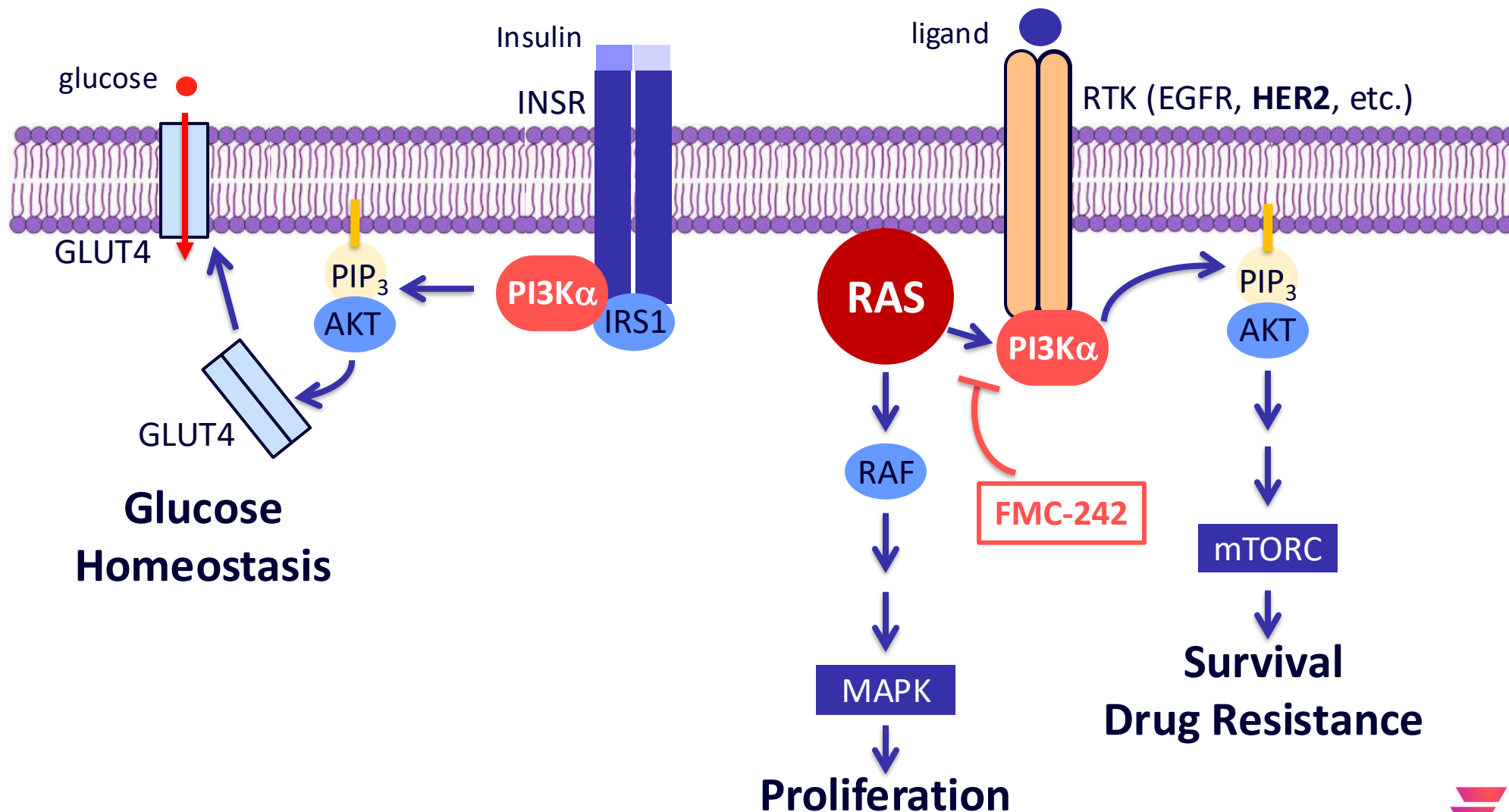
## EGFR combination



\*KRAS inhibitor resistant model



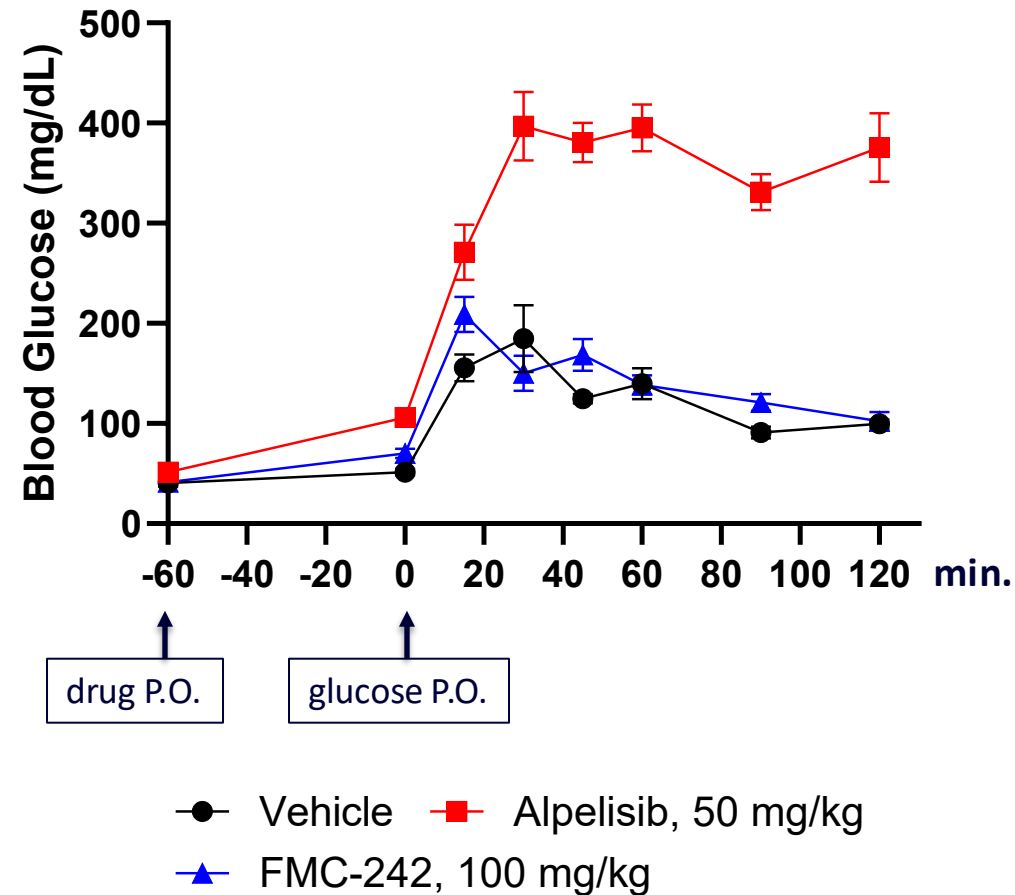
# Inhibition of PI3K $\alpha$ -RAS interactions spares normal PI3K $\alpha$ function





# FMC-242 does not disrupt normal glucose metabolism at $\geq 30\times$ the efficacious dose

## Oral Glucose Tolerance Test





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

## PI3K $\alpha$ -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





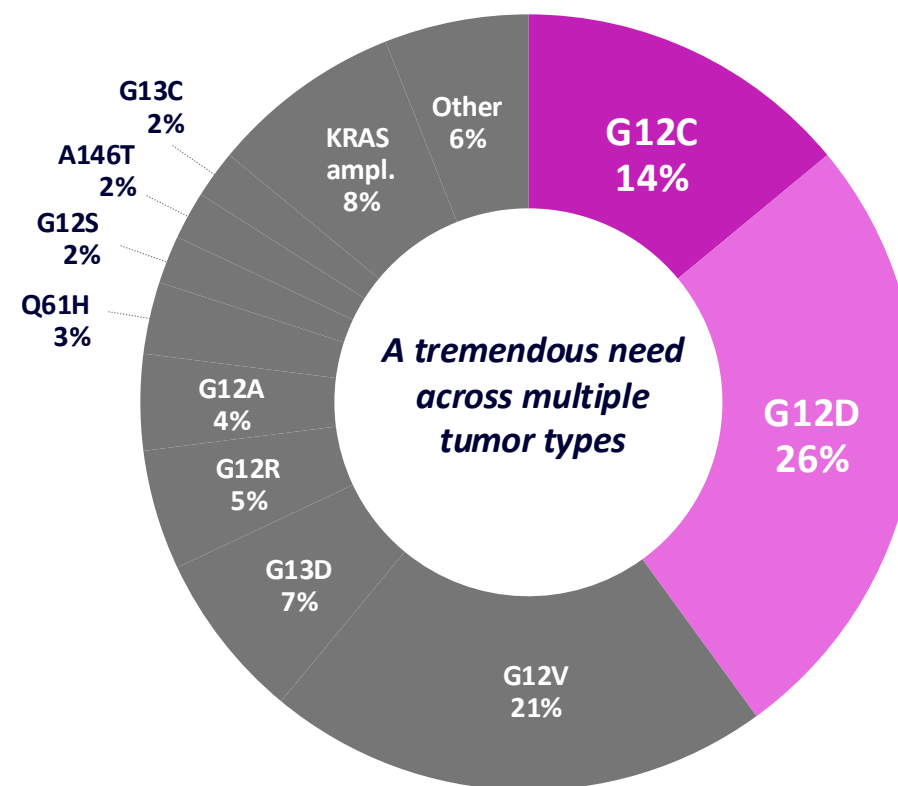
# A targeted approach to conquer KRAS treatment

## 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**

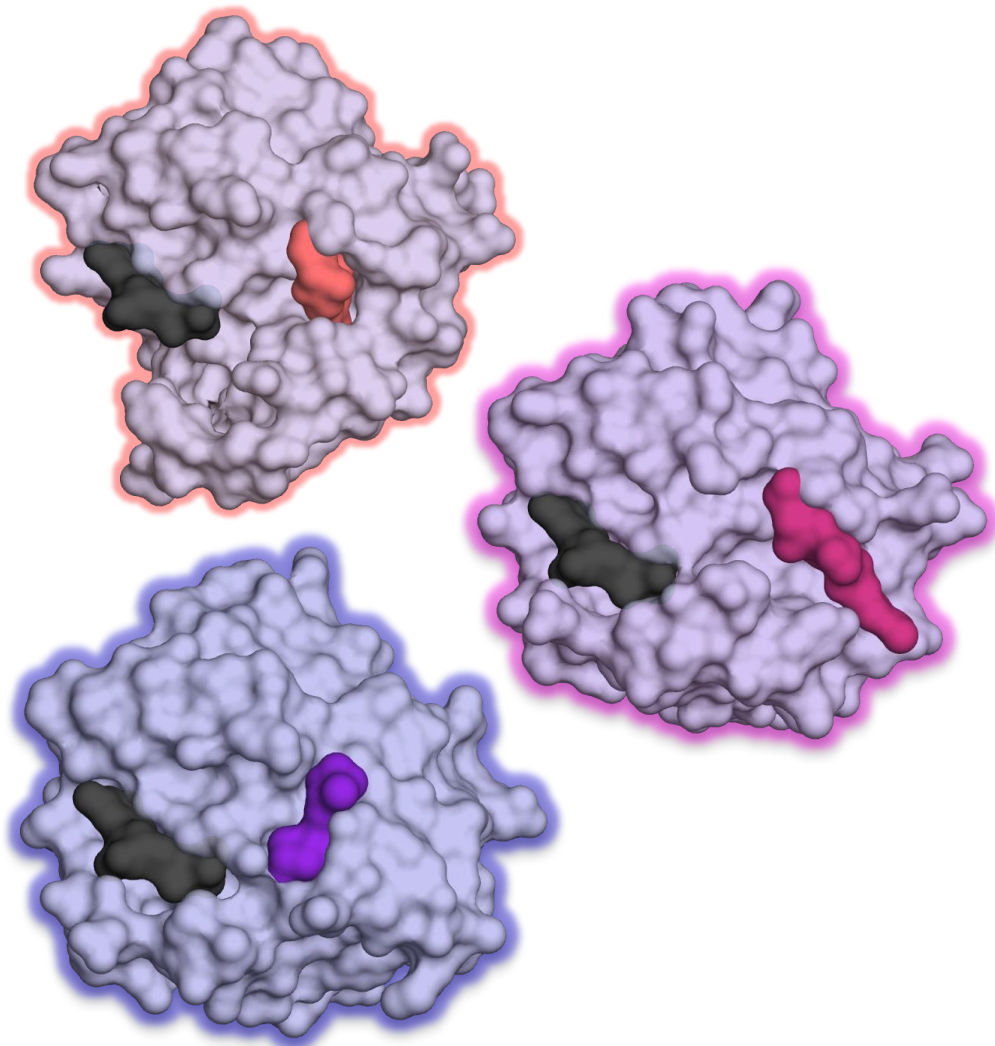
*Percentage patients, estimated*



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



# First in class covalent inhibitors of ON+OFF 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



# 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



# FMC-220

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





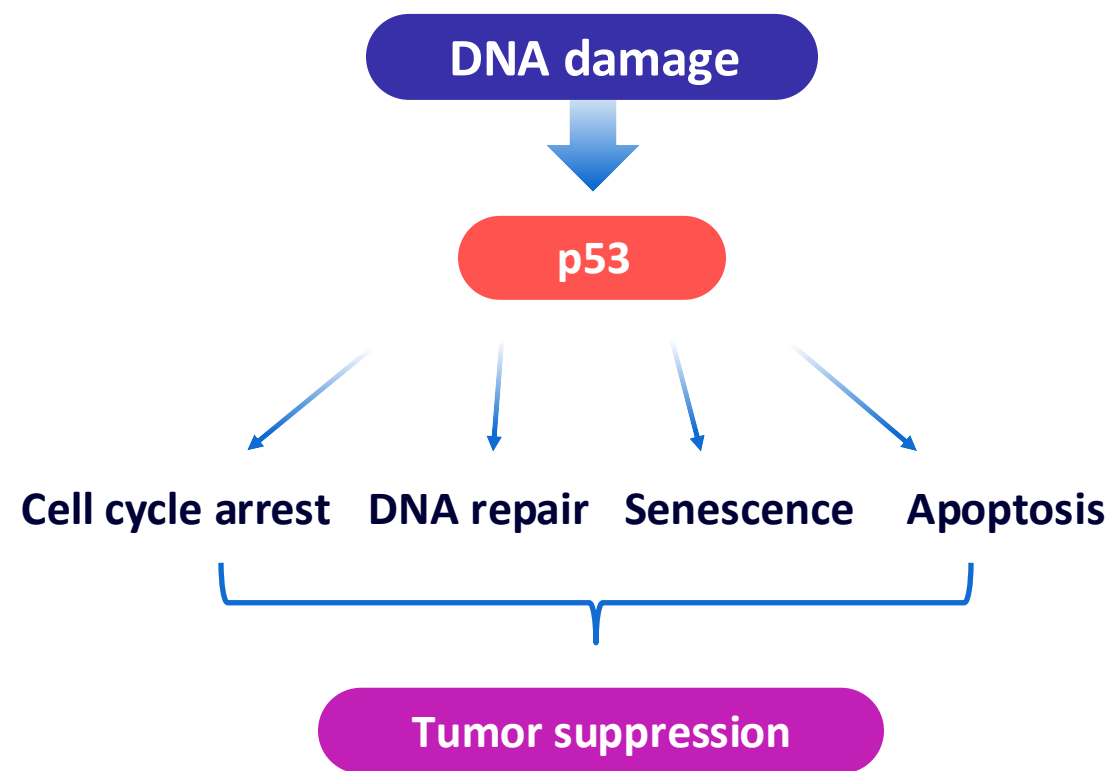
# p53 Y220C is a clinically validated cancer driver

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

- It is inactivated by mutation in ~50% of cancers<sup>1</sup>

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

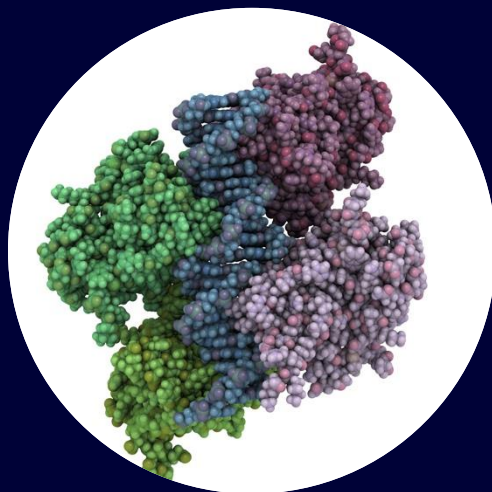
- Key hot-spot missense mutation that destabilizes p53 leading to loss of function
- Affects ~1% of solid tumors including ovarian, breast, lung and others, ~ 125K new patients/year worldwide





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

>20 years



Non-covalent activators are limited

Applied

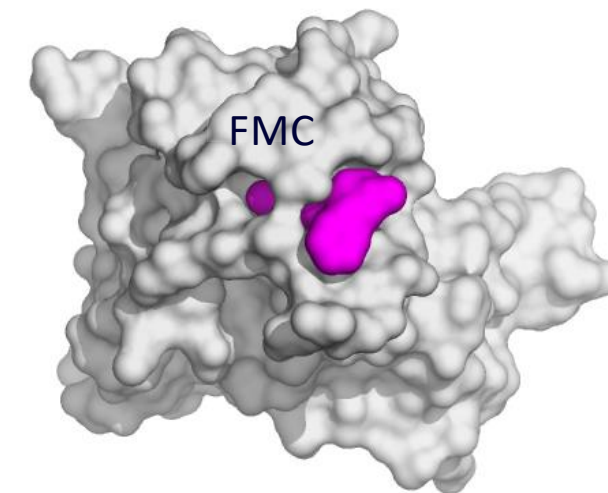
The Frontier™ Platform



Best-in-industry AI optimized chemoproteomics

## FMC-220

Rapidly progressed a potential best-in-class drug candidate

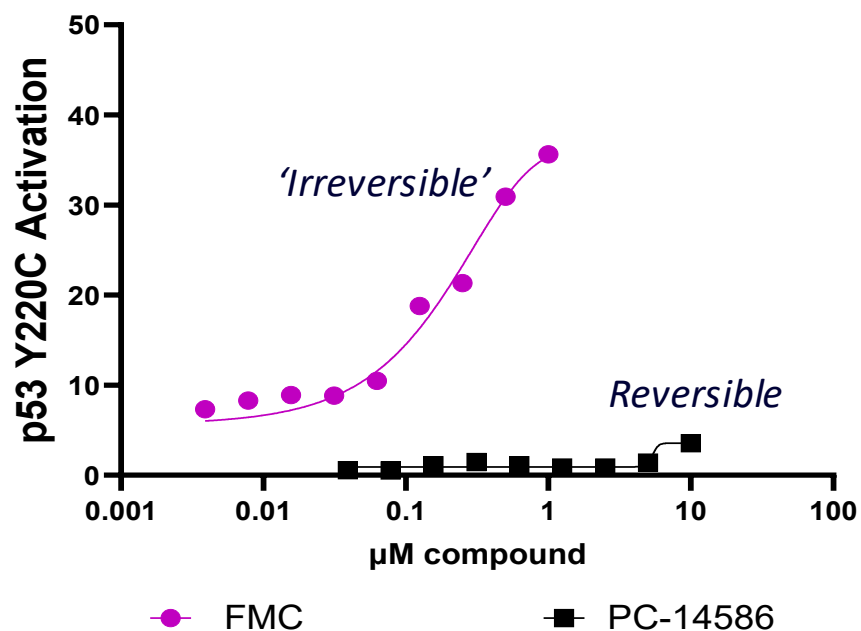


Enhanced potency,  
Exquisite selectivity  
Durable efficacy

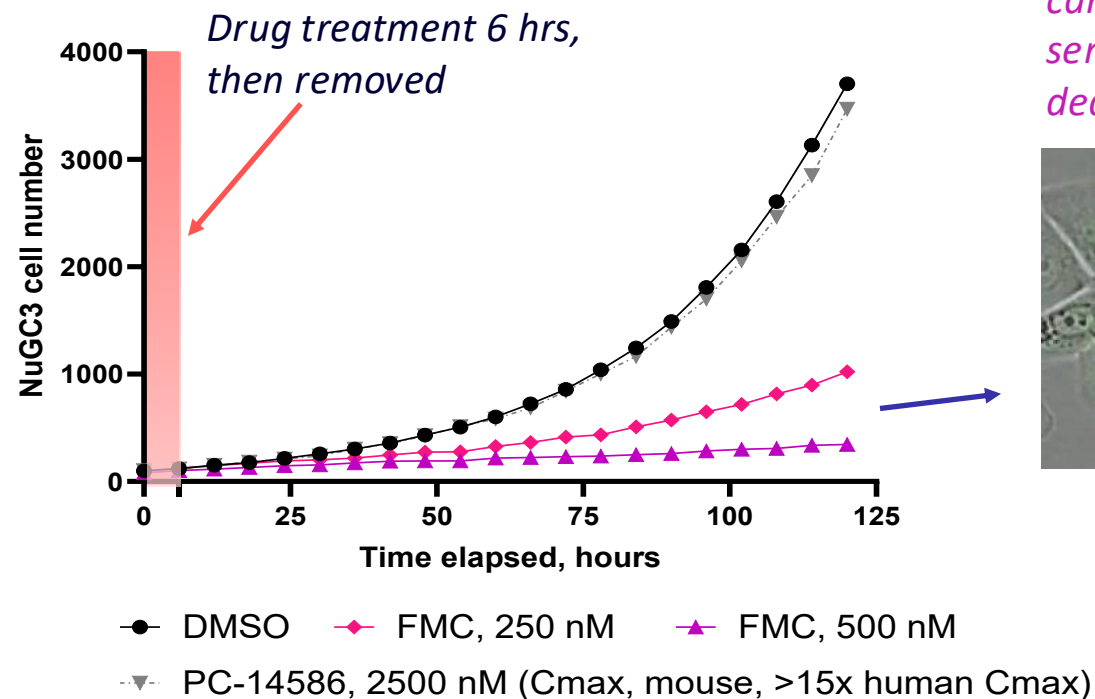


# Differentiated covalent mechanism of action delivers potency with durability

Durable p53 response after drug wash-out (18 hrs)



Durable anti-cancer effect that persists for 5 days and beyond

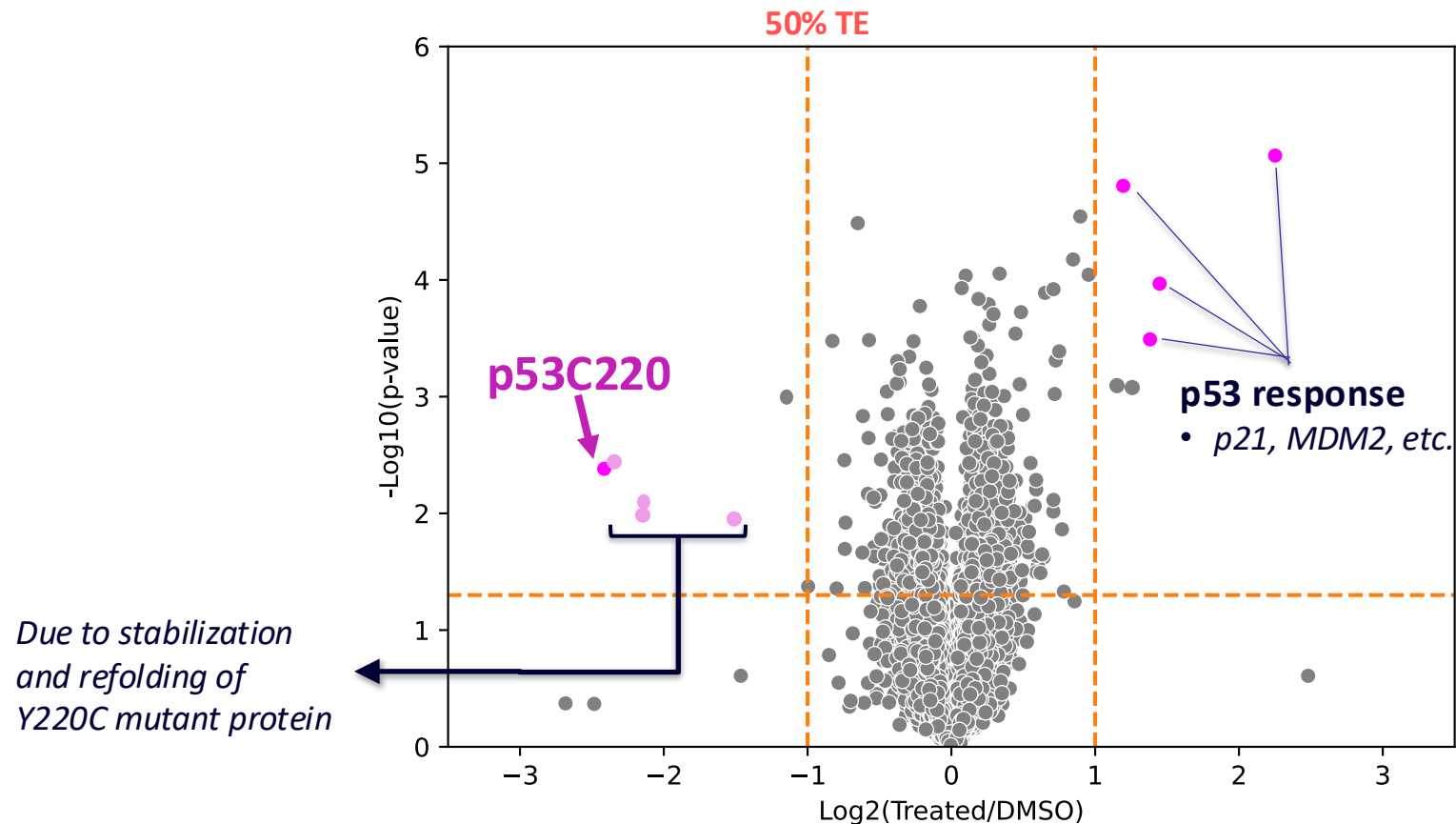


'Irreversible' anti-cancer phenotype, senescence and death





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

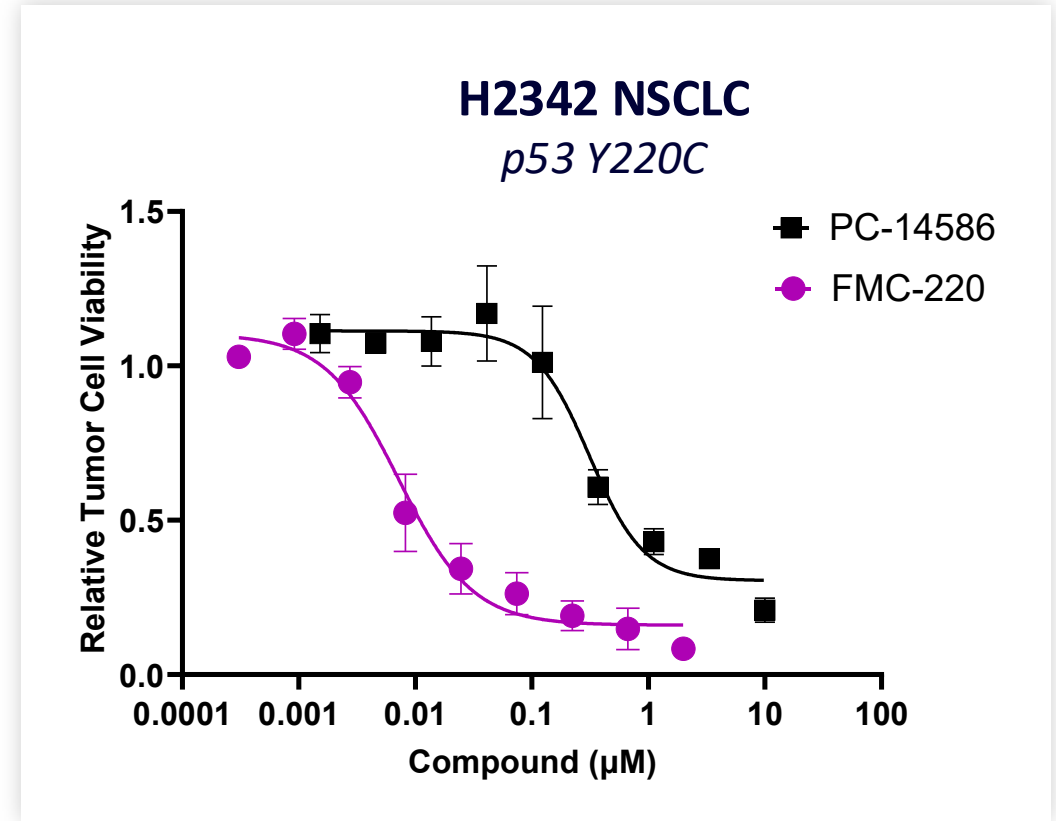
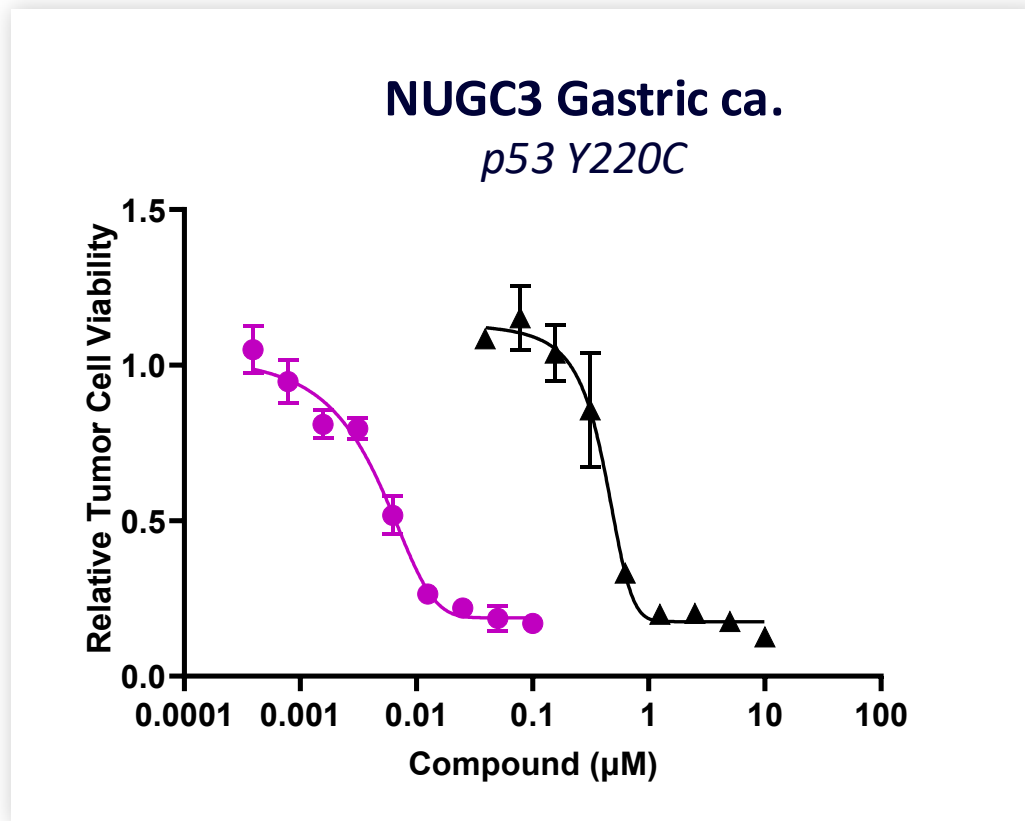


Cellular target engagement and selectivity was assessed using competitive isoTOP-ABPP. 4 hr treatment with 1  $\mu\text{M}$  FMC-220, NUGC3 cells



# Unprecedented inhibition of tumor cell proliferation

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



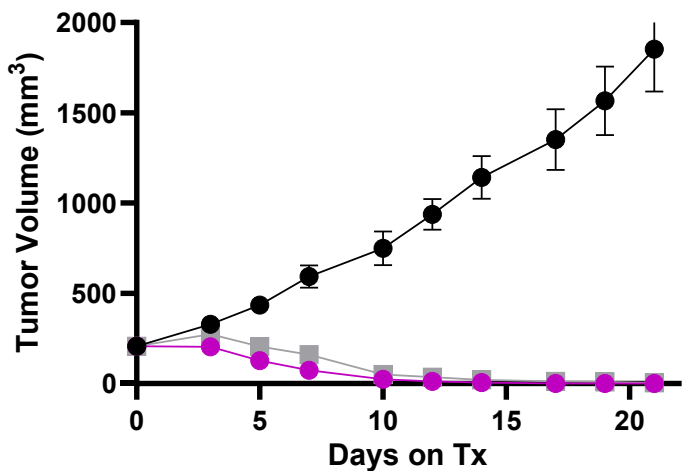
*50-100X increased activity relative to PC-14586*



# FMC-220 delivers tumor regression across PDX models

## LU5269, SCLC

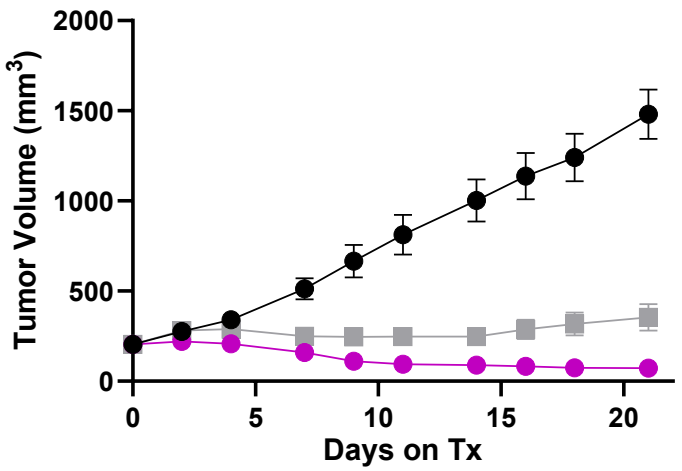
TP53Y220C, ATR, FLT3



- Vehicle
- FMC-220, 60 mg/kg → **5/5 CR**
- PC-14586, 100 mg/kg VS **1/4 CR**

## ES2411, Esophageal

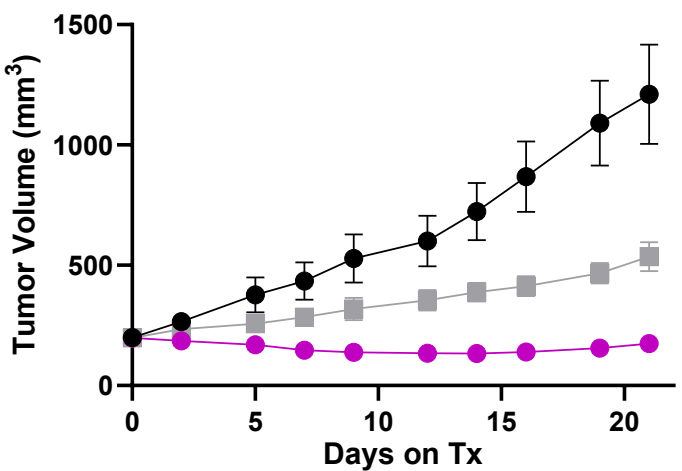
TP53Y220C, APC, KEAP1, MYCamp



- Vehicle
- FMC-220, 100 mg/kg
- PC-14586, 100 mg/kg

## HN3537, HNSCC

TP53Y220C, SMARCA4, EP300, TSC2

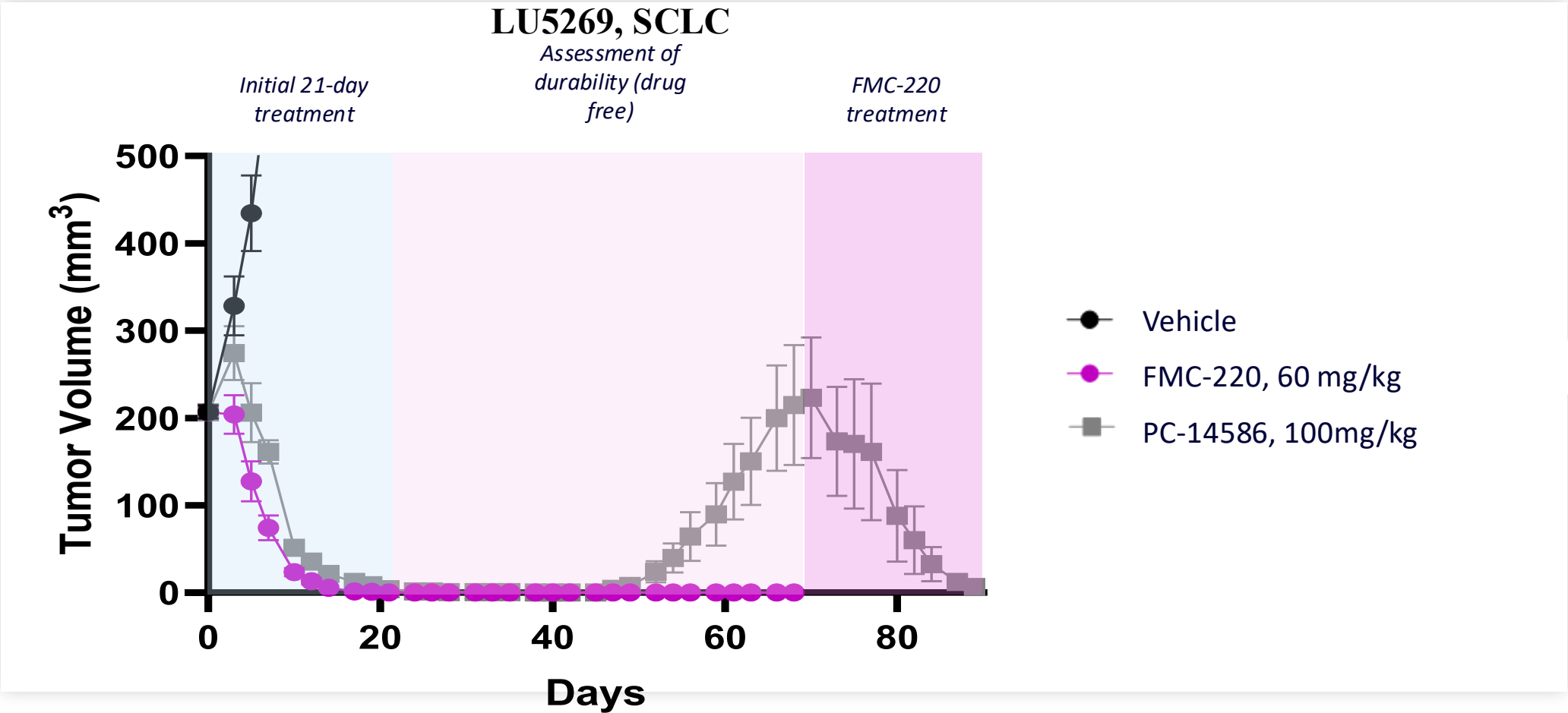


- Vehicle
- FMC-220, 60 mg/kg
- PC-14586, 100 mg/kg

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



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



**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™**  
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**



# The Frontier<sup>TM</sup> Platform



**Inhibitors**

**Novel E3  
Engagers**

**Glue  
Discovery**

**Stabilizers/  
Activators**

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

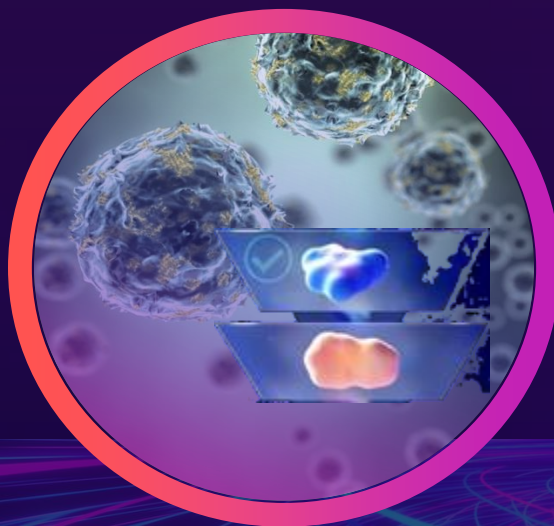


# The Frontier™ Platform takes covalent drug discovery to the next level through AI enablement



AI 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™



Covalent AI™ enabled acceleration

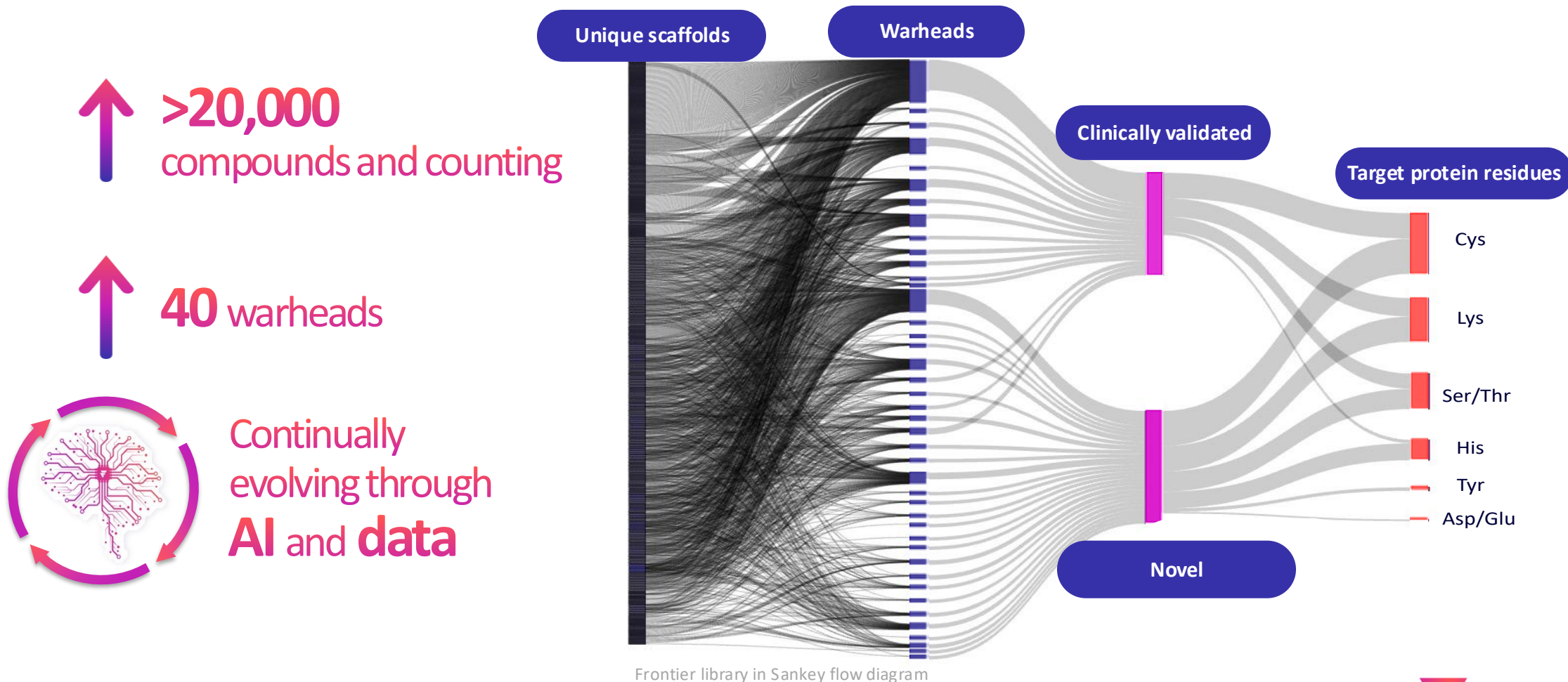
18-24 months  
to clinical candidate





Covalent  
Library

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

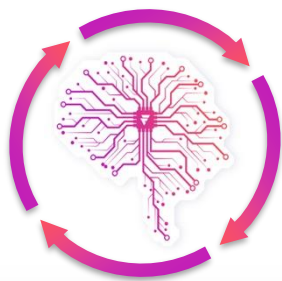






Covalent  
Library

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

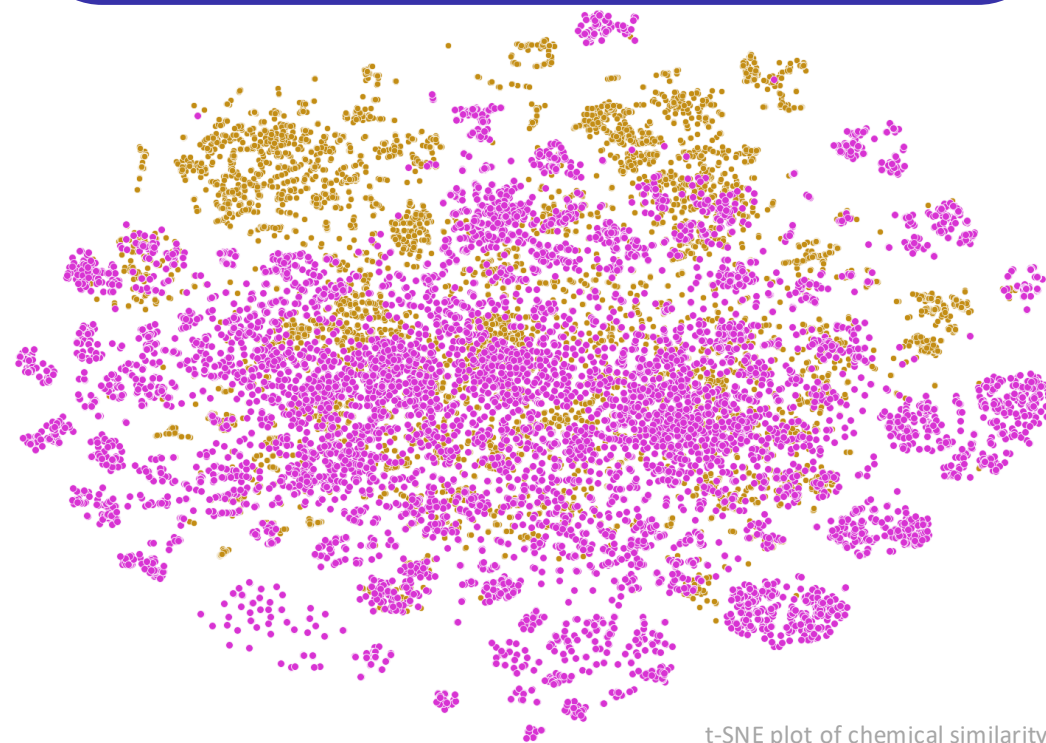


Continually  
evolving through  
**AI** and **data**

## OUR IN-HOUSE BUILT LIBRARY:

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

### Comparison Frontier library vs. commercial gold standard



t-SNE plot of chemical similarity



Commercial gold standard

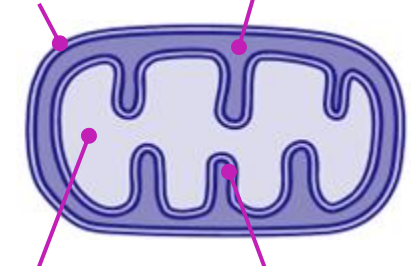


 Library Hit (62%)

 Library Hit (58%)

**Outer Membrane**  
112 targets  
Binding Site **(90%)**  
Library Hit **(55%)**

**Intermembrane Space**  
49 Targets  
Binding Site **(96%)**  
Library Hit **(73%)**



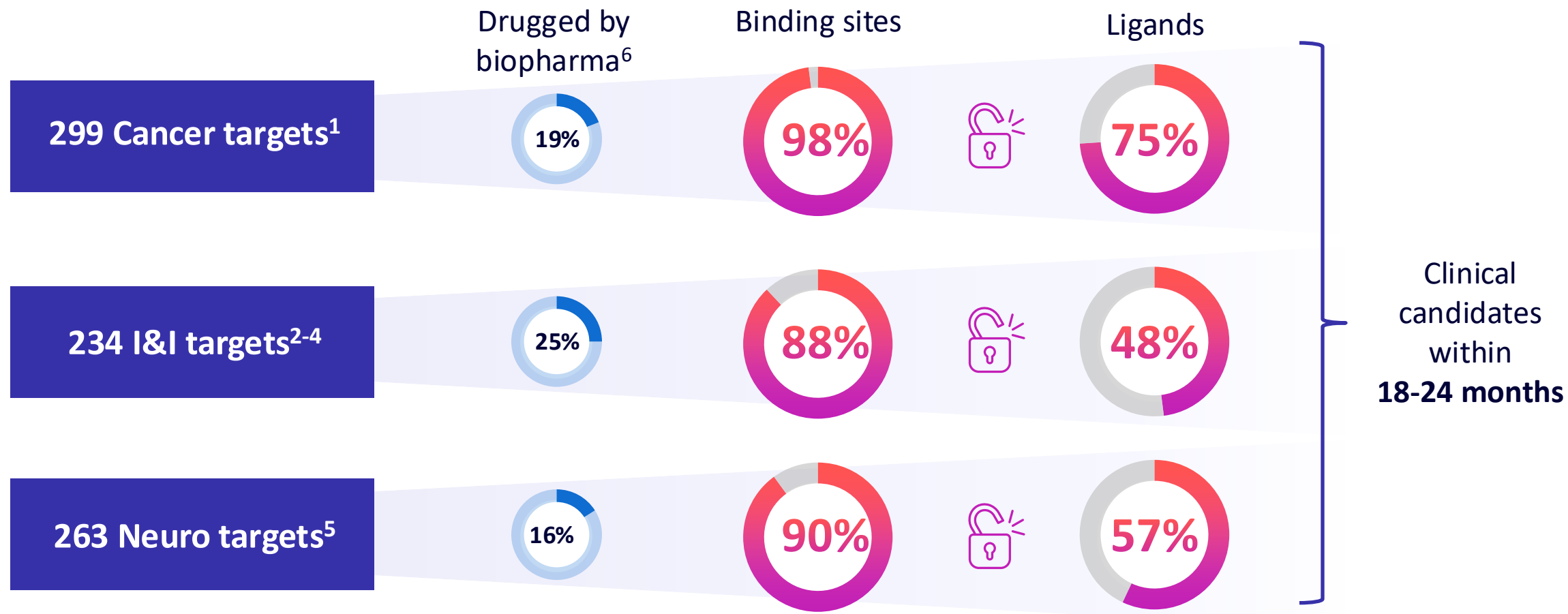
**Inner Membrane**  
356 Targets  
Binding Site **(85%)**  
Library Hit **(38%)**





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

## Druggability Atlas™



1 Bailey et al. 2018 *Cell*

2 Kolkhir et al. 2023 *Nature Reviews Drug Discovery*

3 Fang et al. 2022 *Nucleic Acids Research*

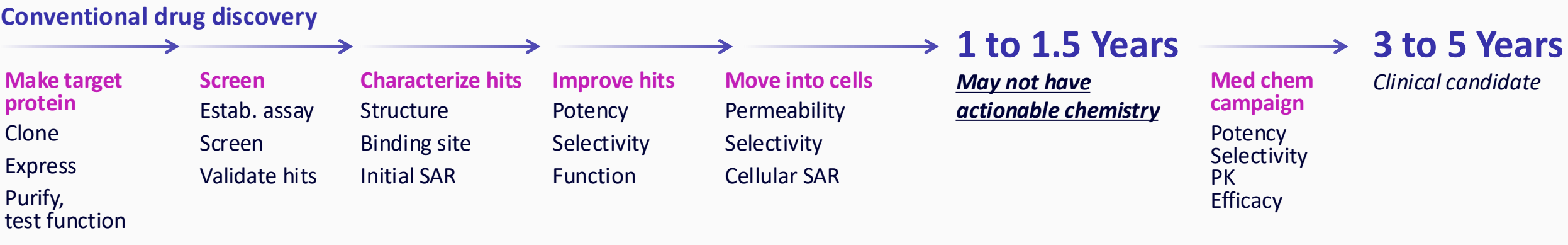
4 Grissa et al. 2022 *Diseases 2.0: Database*

5 Annotation by <https://www.uniprot.org/>

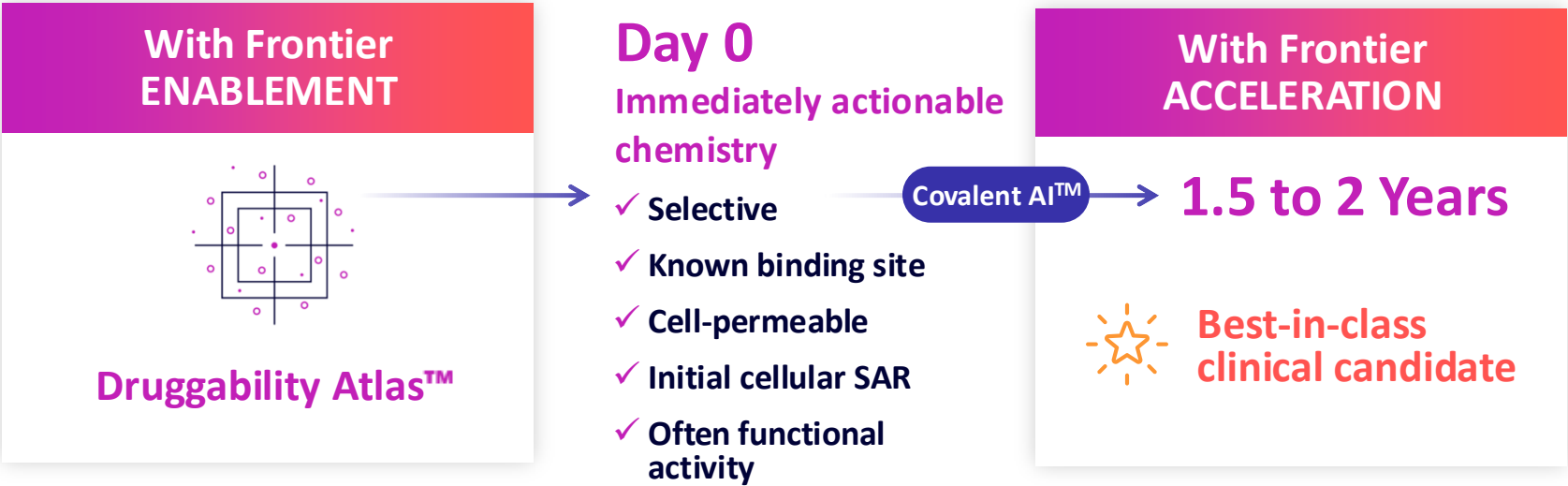
6 <https://www.ebi.ac.uk/chembl/>



# Frontier technology fast forwards drug discovery



## Frontier’s time savings through tech





FrontierMeds.com