

Clinical Antiviral Development Landscape as of December 2024



Antiviral-Indication Expansions: Preclinical & Clinical Compound/Indications (N=36)

Investigational: Antiviral compounds in clinical phase development for a different virus disease indication. Approved: Antiviral compounds approved for treatment of a different virus disease indication.



6 of these antivirals (favipiravir, remdesivir, molnupiravir, amantadine, oseltamivir, & zanamivir) are approved for treatment of COVID-19 and/or Influenza.

- Adefovir is approved for treating Hepatitis B virus disease and cidofovir is approved for treating CMV disease.
- Tecovirimat is approved for treating smallpox.
- Favipiravir and remdesivir have the most indication expansions under evaluation (9 each).

*As of December 18, 2024; Clinical phase Investigational (Unapproved) and Approved antivirals being explored for expanded indications.



All Clinical Phase & Approved Antivirals (N=75)

INTREPID Alliance Analysis (4th Edition)*



*December 18, 2024 data with "Promising" Analysis defined in March 2024.



Preclinical Antiviral Development Landscape as of December 2024



Preclinical Compounds by Stage of Preclinical Development: COVID-19 Indications

The majority of preclinical compounds are under evaluation for SARS-CoV-2/COVID-19 (74/125, 59.2%).

COVID-19 Preclinical Compound/Indications (n=74)

Hit (36)		Early Lead (17)		Late Lead (11)	Potential Candidate (10)
6-72-2a	Anisodamine	211	C6G25S	2-Thiouridine	CDI-45205
AVI-8053	Borneol Ester, PROTACs	D6	EDDC-2214	Beta-521	COR803
CD04872SC	Epigallocatechin-3-gallate	EK1C4	FBP (frog-defensin-derived basic peptide)	HT-002	GC376**
H84T-BanLec	IPB02	GRL0617**	NBCoV63	LNA ASOs	P315V3
IPB19	Lycium barbarum glycopeptide	PLpro Inhibitors	RCYM002	Mpro inhibitor	SY110
MCULE-5948770040	MPI5	SBCoV202	Small molecule inhibitor	PF-07957472	CDI-873
MP18	MRX-18	STI 4398	SWC423	3N39v4-Fc	COV-X
MXB-4	MXB-9	TDI-015051**	Therapeutic interfering particles	DCOY 102/103	NV-387-R
Napthoquinones	Pan-coronavirus broad spectrum antiviral	TNX-3500		Jun12682	RCYM003
Penciclovir	Pentosan Polysulfate			ML2006a4	THY-01
Protegrin-2	RECCE 529			MVR-V001	
RU-0415529**	SACT-Covid19				
Sangivamycin	Saquinavir				
SARS-CoV-2 PLpro Inhibitor	SBFM-PL4				
SPIKENET	Spirooxindole				
SSYA10-001	TEAR-CoV				
Urtica dioica agglutinin (UDA)	ViruSAL				
YH-6	ZINC00000639429				

*As of December 18, 2024. Archived and Discontinued compound/indications are not included in this summary; **New.



Preclinical Compounds by Stage of Preclinical Development: Non-COVID-19 Indications

For Non-COVID-19 preclinical compounds, Influenza has the highest number under evaluation (12/51, 23.5%).

Non-COVID-19 Preclinical Compound/Indications (n=51)

Hit (15)		Early Lead (20)		Late Lead (8)	Potential Candidate (8)
MLT202	SRI-42718	Chikungunya antiviral	NBCoV63	ERDRP-0519	THY-01
KCB261770	Pan-coronavirus broad spectrum antiviral	5-iodo-2-deoxyuridine**	7-deaza analogs of S-adenosyl methionine**	VIKI-PEG4-chol	GHP-88309**
SSYA10-001	Pan-coronavirus broad spectrum antiviral	CMLDBU6128 and improved pyridopyrimidinones**	HPMPDAP (diaminopurine)**	2-Thiouridine	AnQlar
SSYA10-001	Pan-flavivirus broad spectrum antiviral	ST357 (TTP-018)**	TTP-6171**	ING-1466	4'-fluorouridine**
MLT201**	Pan-flavivirus broad spectrum antiviral	UMM-766**	4'-fluorouridine**	VIKI-dPEG4-toco	NV-387-T**
Dengue antiviral (Protinhi)	MLT201	DCOY 102/103**	NBCoV63	BSBI-YF**	THY-01
Pan-flavivirus broad spectrum antiviral	ALS-1	DCOY3001 Pan-paramyxovirus	Compound 23b	JNJ-A07**	VNT-101
T-1106 pronucleotides		Influenza A/B Inhibitor	IY7640	UAWJ280	4'-fluorouridine**
		M355	OA-10 (oleanolic acid)		
		VTose	DCOY 102/103**		

Indication Legend



*As of December 18, 2024. Archived and Discontinued compound/indications are not included in this summary; **New.





Preclinical Non-COVID-19 Indications



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Preclinical Compound/Indications by Stage of Preclinical Development (Non-COVID-19; N=73)*



Stage of Preclinical Development

Compound/Indications span the various stages of preclinical development.

Preclinical Compound/Indications by Viral Family (Non-COVID-19; N=73)*



Ten of the 13 viral families with pandemic potential have preclinical compound/indications.

Orthomyxoviridae has the most compounds and is focused on Influenza.



Preclinical Compound/Indications by Stage of Preclinical Development and Viral Family (Non-COVID-19; N=73)*



Stage of Preclinical Development

Compound/Indications span the various stages of preclinical development.

Orthomyxoviridae (Influenza) has the most compound/indications.

*As of December 18, 2024.



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Preclinical Compound/Indications by Viral Family and Stage of Preclinical Development (Non-COVID-19; N=73)*



Compound/Indications span the various stages of preclinical development.

► The highest activity (12/51, 23.5%) is focused on *Orthomyxoviridae* (Influenza).

Preclinical Compound/Indications by Viral Disease and Stage of Preclinical Development (Non-COVID-19; N=73)*



*As of December 18, 2024.

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Preclinical Compound/Indications by Stage of Preclinical Development and Viral Disease (Non-COVID-19; N=73)*



Most are focused on Influenza.

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Preclinical Compound/Indication Category by Stage of Preclinical Development and Mechanism of Action (Non-COVID-19; N=73)*



Stage of Preclinical Development

MOAs for Compound/Indications span the various stages of preclinical development.

All of the Approved or Investigational Antivirals for indication expansion are replication inhibitors.

*As of December 18, 2024.

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Preclinical Compound/Indication Category by Mechanism of Action and Stage of Preclinical Development (Non-COVID-19; N=73)*



Compound/Indications span the various stages of preclinical development and MOAs.
The MOA rank order is Replication, Entry, Protease, Assembly/Release.

*As of December 18, 2024.

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Disclaimer

The INTREPID Alliance is a not-for-profit consortium of innovative biopharmaceutical companies committed to accelerating antiviral research, aiming to ensure that we have a stronger pipeline and are better prepared for future pandemics.

As part of our efforts, the INTREPID Alliance maintains and publishes a centralized list of promising investigational candidate compounds, with the purpose of knowledge-sharing and to support better pandemic preparedness. These compounds have been selected based on objective, scientific criteria, using publicly available sources, and at arm's length from commercial influence of our member companies. See criteria listed in the report "Antiviral Clinical Development Landscape and Promising Clinical Compounds." The designation of certain compounds as promising is based upon currently available information, and exclusively upon an assessment against these criteria. "Promising" is not a promotional claim. Candidate compounds have not been assessed by regulatory authorities to be safe and efficacious for the treatment of disease in humans. Our content is designed to be factual, informative, and non-commercial. It is not designed or intended to advertise or promote any pharmaceutical product or therapy or to advance the commercial interests of any company.

