

Registry of Antiviral Compound Libraries

INTRODUCTION

The INTREPID Alliance Antiviral Development Landscape highlights many gaps in small molecule antiviral treatments for the 13 priority viral families of pandemic concern as identified by the World Health Organization. Indeed, for some priority viral families there are no clinical or preclinical molecules in development. Small molecule antivirals are key tools in our preparedness arsenal. They provide scalable, accessible solutions that can save lives and reduce the potential devastating consequences of future epidemics and pandemics. By connecting researchers to the available resources that enable the discovery and development of new antivirals, we aim to address the existing gaps that threaten our global health security.²

INTREPID recently published a target compound profile (TCP) that describes the attributes of promising compounds that have the potential to demonstrate clinical efficacy toward viruses. The discovery of compounds that meet the TCP profile typically starts with the screening of small molecule compound libraries to identify chemical starting points (or hits) for medicinal chemistry optimization.

The discovery process typically starts by screening compound libraries to identify chemical starting points for optimization into new drugs. INTREPID has created a listing of promising, accessible compound libraries for antiviral screening that collectively form the INTREPID Alliance Registry of Antiviral Compound Libraries. INTREPID surveyed compound libraries that have been publicly disclosed across academic institutions, corporate, and commercial vendors, to identify the most appropriate libraries for inclusion in the broader INTREPID Registry. Commercial libraries were collectively included on a select basis to be comprehensive in our listing. INTREPID recommends these libraries for consideration by antiviral R&D scientists interested in accelerating efforts to discover new antivirals.

Some of the criteria that were used in the selection process included access through collaboration agreements, minimal costs, and minimal other non-financial obligations, relevance of the compound content for antiviral discovery, and size of the library. These criteria are described in more detail in the methods section below.

Each of the individual compound libraries in the Registry were organized into 4 categories as shown in Table 1. Descriptions of each of the 4 categories and the individual libraries contained within each category can be accessed using the links embedded in the table.

A special thanks to these organizations for agreeing to be listed as a resource.

Table 1. The INTREPID Alliance Registry of Antiviral Compound Libraries*

	Categories Click on a category or library name below to explore more			
Library Source	Drug Repurposing Libraries	Direct-Acting Antiviral Libraries	Privileged Chemical Structure- Based Libraries	Novel Compound Screening Libraries
The Broad Institute	<u>Drug</u> Repurposing Hub ▼	-	-	-
Calibr-Skaggs Scripps Research	ReFRAME Library ▼	Antivirals in ReFRAME Library ▼	-	-
CD3 & VirusBank Platform <i>KU Leuven</i>	KURE Repurposing Compound Library ▼	<u>Vi-KURE</u> ▼	-	Diverse Compound Library (350K compounds) ▼
National Center for Advancing Translational Sciences (NCATS)	NCATS Pharmaceutical Collection ▼	-	-	NCATS Artificial Intelligence Diversity Library ▼ NCATS Genesis Chemical Library ▼
Commercial Vendors	Approved and Investigational Drugs ▼	-	Nucleosides Protease Inhibitors Peptidomimetics Macrocycles Metal-binding motifs ▼	Fragments Diversity Libraries ▼

^{*}Accessed on October 1-6, 2025.



SELECTION CRITERIA AND METHODS

A broad range of institutions that have described their compound libraries either online or in the scientific literature were surveyed. In some cases, it was determined that the libraries were no longer available, for example, the Pandemic Response Box from Medicines for Malaria Ventures, the European Lead Factory Library, and the University of Dundee, Global Health Chemical Diversity Library v2. Only the currently available libraries were evaluated for inclusion into the Registry using several criteria as described below.

Library Accessibility: An important feature that was given considerable weighting for inclusion in the Registry was the accessibility to all global researchers. Accessibility for the purpose of the INTREPID Registry was defined as libraries that are available at no/minimal costs (e.g., shipping) to researchers requesting access. Depending on the library some form of collaboration agreement with the provider Institution may be required and a mutually agreed screening plan to gain access. Following establishment of the collaboration, the libraries are then made available either through providing plates of compounds or the provider institution performing the screen for the researcher. Libraries that fit within these no/minimal cost criteria were generally included in the Registry and considered to be readily accessible libraries.

Commercial Libraries: A large variety of libraries can be purchased from organizations that synthesize and market libraries as a business. Although these libraries do not fit the minimal cost model for accessibility as outlined above, they are nevertheless relevant for antiviral drug discovery and therefore included in the Registry for awareness and completeness. Commercial libraries were collectively represented in Table 1 based on the chemical content of the library. Almost all vendors list drug repurposing libraries of one form or another and researchers interested in this category of libraries should perform their own diligence on the different vendor libraries to assess their suitability for their own individual needs. Some chemical structures are known to be privileged towards antiviral drug discovery. For example, nucleosides, protease inhibitors, peptidomimetics, etc., and these are well represented in the commercial library space rather than the non-commercial space. A table listing of the libraries identified across commercial vendors with chemical composition that is considered by INTREPID to be privileged for antiviral lead discovery is provided, and in addition, another table listing commercial libraries that are designed to identify novel chemical starting points for drug discovery (fragments, diversity libraries, etc.) is also included.

Library Content: The class of chemical structures represented by the library and their relationship for antiviral drug discovery was also considered. Screening hits identified from drug repurposing libraries or direct acting antiviral libraries can benefit from accelerated timelines to approved drugs due to the wealth of data that already exists for these compounds. The target compound profile published by INTREPID focuses specifically on direct-acting antivirals (DAAs) for pandemic preparedness. Consequently, one of the four categories of library within the Registry is specifically tailored toward libraries that are either exclusive or dominated by DAAs.

In addition to the more focused drug repurposing and DAA libraries, we also considered structural theme-based libraries where the chemical compounds are privileged towards the discovery of antivirals (e.g., nucleosides, peptidomimetics, macrocycles, proteases inhibitors etc.). Finally with



respect to the discovery of novel chemical matter and mechanisms of action, it was important to consider libraries that are pharmacologically naïve to provide hits that are novel. Such libraries include fragments, diversity sets, etc.

Library Quality: The integrity of each compound in the library is a key determinant of the outcome of the screening process. A great deal of resources and time can be spent following up on poor quality chemical matter identified in initial screening efforts. Therefore, INTREPID sought to include libraries that are from recognized sources and have indicated that quality control is included in the development of the library.

Library Size: The screening assay and the library intended for screening need to be mutually compatible. In general screening assays can be low-throughput (100s of compounds), medium throughput (1,000s compounds) or high-throughput (10,000 upwards). Pandemic viruses often require handling within BSL3/4 laboratories thus making it technically challenging to conduct large high-throughput screening operations which require extensive automation. Furthermore, large screening campaigns are more costly to conduct and are potentially beyond the means of smaller research groups. Therefore, the Registry includes libraries of all sizes with a particular emphasis on libraries that are better suited to low- and medium-throughput screening operations.

CATEGORIES OF LIBRARIES WITHIN THE REGISTRY

Drug Repurposing Libraries

Libraries of regulatory approved drugs and compounds that have been previously investigated in Phase 1-3 clinical trials are often referred to as drug repurposing libraries. Remdesivir, the first drug approved to treat COVID-19, was previously evaluated in clinical trials towards Ebola and therefore was likely a component of many existing comprehensive drug repurposing libraries prior to the COVID-19 pandemic.3 Consequently, screening of a drug repurposing library is a powerful and proven way to accelerate the discovery of new drugs for viral diseases and arguably one of the best approaches towards meeting the 100 Days Mission for small molecule compounds.

Drug repurposing libraries are available from multiple sources including many commercial vendors and academic/non-profit institutions. The compound numbers in these libraries vary, ranging from several hundred compounds to >10,000 compounds. Although many commercial drug repurposing libraries are available, several prominent collections are accessible to the broader research community through collaboration.

The Drug Repurposing Libraries are alphabetically listed below and include brief descriptions of each library along with references, websites, and website navigational tips.



The Broad Institute Drug Repurposing Hub

The Broad Institute Drug Repurposing Hub currently contains 7,934 compounds (accessed Sep 4, 2025) and is continuously expanding. First published in 2017, the library initially contained 4,707 discrete compounds of which 3,422 were drugs marketed around the world or in



clinical trials. The collection also contains pre-clinical tool compounds. The library is annotated with the respective literature associated with each molecule including clinical trial and mechanism of action information. The chemical identity and purity of the individual compounds in the library have been confirmed. The 2025 re-plating of the compound library created two distinct libraries, which can be requested, one focused on approved drugs (containing about 2,868 compounds) and the second containing clinical compounds and pre-clinical tool compounds (containing about 2,638 compounds). The libraries are available for shipment or screening upon request for academic and non-profit groups. For-profit companies can access the libraries by screening at the Broad under a collaboration agreement.

- Reference: Corsello SM, Bittker JA, Liu Z, Gould J, McCarren P, Hirschman JE, Johnston SE, Vrcic A, Wong B, Khan M, Asiedu J, Narayan R, Mader CC, Subramanian A, Golub TR. The Drug Repurposing Hub: a next-generation drug library and information resource. Nat Med. 2017 Apr. 7;23(4):405-408. doi: 10.1038/nm.4306. PMID: 28388612; PMCID: PMC5568558. https://pubmed.ncbi.nlm.nih.gov/28388612/.
- ☑ Website: https://repo-hub.broadinstitute.org/repurposing
- (i) NavTIP: Website has articles published under 'recent news', and a navigational flow chart on how to use the library and select compounds from different segments of the library.

Calibr-Skaggs, Scripps Research ReFRAME Library

The ReFRAME (Repurposing, Focused Rescue, and Accelerated MedChem) Library is one of the largest open access drug repurposing collections available. ReFRAME was constructed by Calibr-Skaggs (Scripps Research) using 3 different commercial drug intelligence databases together with patent mining of small





molecules that have been dosed in humans. In its initial stage it contained ~12,000 clinical stage and regulatory approved drugs that were either purchased or custom synthesized for the library. A large proportion of the compounds in the library (80%) were identified from data mining. Since the start of the COVID-19 pandemic, the library has been considerably expanded to >14,000 compounds through the addition of preclinical stage antiviral compounds. Calibr-Skaggs also encourages the submission of potential new compounds to further enhance this collection.

Reference: Janes J. Young ME, Chen E, Rogers NH, Burgstaller-Muehlbacher S, Hughes LD. Love MS, Hull MV, Kuhen KL, Woods AK, Joseph SB, Petrassi HM, McNamara CW, Tremblay MS, Su AI, Schultz PG, Chatterjee AK. The ReFRAME library as a comprehensive drug repurposing library and its application to the treatment of cryptosporidiosis. Proc Natl Acad Sci



USA. 2018 Oct 16;115(42):10750-10755. doi: 10.1073/pnas.1810137115. Epub 2018 Oct 3. PMID: 30282735; PMCID: PMC6196526. https://pubmed.ncbi.nlm.nih.gov/30282735/.

✓ Website: https://reframedb.org/

(i) NavTIP: Start with the header link 'about' that provides a tutorial video on the library, a tutorial video on 'how to use reframedb', together with instructions on accessing the library. Website also has a link 'download list of compounds' which is useful for accessing the structures (SMILES string) and other information regarding all the compounds in the collection.

KURE - KU Leuven Repurposing Compound Library (CD3, Virusbank Platform)

The KU Leuven Repurposing compound library (KURE) contains around 7,000 approved or clinical stage small molecules. The Center for Drug Design and Discovery (aka CD3) compiled this drug repurposing library in the context of the Virusbank Platform of KU Leuven. After careful analysis, the collection has been assembled from commercial sources and through custom synthesis of compounds. Interestingly, the collection contains a subset of all known approved and clinical stage direct-acting antivirals (Vi-KURE). Further expansion of this library is planned in the future. The library can be made available in assay-ready plates for screening, typically in a collaborative setting. Interested researchers can contact CD3 directly through its website.







Website: https://www.cd3.be/about-cd3

(i) NavTIP: The website provides a weblink entitled 'Contact' or 'Collaborate with us' to connect with CD3 and obtain more information on how to access the library.

Website: https://virusbankplatform.be

(i) NavTIP: The website provides a weblink entitled 'Contact' to connect with the VirusBank Platform and obtain more information on how to access the library.

NCATS Pharmaceutical Collection (NPC)

The NCATS Pharmaceutical Collection (NPC) is a collection of regulatory approved compounds by the US Food and Drug Administration, along with a number of approved drugs from



related agencies in foreign countries. The collection contains ~2,900 compounds, >95% of all drugs approved. Sources for the collection include traditional chemical suppliers, specialty collections, pharmacies and custom synthesis.



- Reference: Huang R, Zhu H, Shinn P, Ngan D, Ye L, Thakur A, Grewal G, Zhao T, Southall N, Hall MD, Simeonov A, Austin CP. The NCATS Pharmaceutical Collection: a 10-year update. Drug Discov Today. 2019 Dec;24(12):2341-2349. doi: 10.1016/j.drudis.2019.09.019. Epub 2019 Oct 1. PMID: 31585169. https://pubmed.ncbi.nlm.nih.gov/31585169/.
- Website: https://ncats.nih.gov/research/research-resources/preclinical-research-toolbox/npc
- (i) NavTIP: Website provides details on the library. Select the 'Research/Collaborate With NCATS' in the dropdown navigation menu to contact the compound management team for access to the library.

Commercial-Sourced Drug Repurposing Libraries

Almost all commercial vendors of compound libraries, readily identified through online searches, market drug repurposing libraries (approved and clinical drugs) of one description or another. These libraries can range in size from hundreds to thousands of compounds and therefore differ substantially in their content and scope. Interested researchers are encouraged to review the information provided by the commercial vendors as to the suitability of the collections for their individual screening purposes.

Direct-Acting Antiviral Libraries

Direct-acting antiviral (DAA) libraries contain molecules that have confirmed molecular interactions towards a viral protein, or likely interactions based on chemical structure related to other known DAAs. The value of screening specific direct-acting antiviral libraries is readily apparent when considering the origins of the first small molecule COVID-19 treatments.

Remdesivir, a nucleotide prodrug with broad-spectrum antiviral activity across many viruses was repurposed for COVID-19 after initially being investigated in the clinic as a potential anti-Ebola agent.⁴ Nirmatrelvir, the active component of Paxlovid™ was designed based on an earlier SARS-CoV-1 MPro inhibitor that was identified in response to the 2002 SARS epidemic.⁵ Molnupiravir, a prodrug of a nucleoside antiviral with broad-spectrum antiviral properties that was invented at Emory University⁶ was originally being developed for viruses such as Influenza and Venezuelan Equine Encephalitis virus. These examples illustrate that the first small molecule direct-acting COVID-19 treatments all originated from previously known direct-acting antivirals. Moreover, DAAs due to their optimization towards a viral target, may have limited interactions with host targets and accordingly reduced safety risks.

Screening preclinical and clinical DAAs is therefore a valuable tactic to potentially accelerate the discovery of new DAAs for pandemic preparedness viruses. Although INTREPID concludes that DAA libraries are highly valuable libraries, no specific DAA-only libraries are publicly available at this time. For access to collections of direct-acting antivirals, researchers are recommended to consider the Drug Repurposing Libraries category. Below is a listing of drug repurposing libraries with significant numbers of direct-acting antivirals.



Calibr-Skaggs Scripps Research ReFRAME Library

The current ReFRAME collection has >14,000 compounds and contains a significant proportion of preclinical and clinical stage DAAs, including a number of nucleosides and protease inhibitors. Combined with the many approved antiviral drugs in the collection, it is one of the larger repositories of direct-acting





antivirals available. Importantly, many of these antiviral compounds contained within the collection require custom synthesis suggesting they are unlikely to be found in other collections. The DAA subset within the larger ReFRAME library is highly recommended for screening towards pandemic viruses. Researchers interested in the direct-acting antivirals within ReFRAME are encouraged to contact Calibr-Skaggs for further information.

- Reference: Janes J, Young ME, Chen E, Rogers NH, Burgstaller-Muehlbacher S, Hughes LD, Love MS, Hull MV, Kuhen KL, Woods AK, Joseph SB, Petrassi HM, McNamara CW, Tremblay MS, Su AI, Schultz PG, Chatterjee AK. The ReFRAME library as a comprehensive drug repurposing library and its application to the treatment of cryptosporidiosis. Proc Natl Acad Sci USA. 2018 Oct 16;115(42):10750-10755. doi: 10.1073/pnas.1810137115. Epub 2018 Oct 3. PMID: 30282735; PMCID: PMC6196526. https://pubmed.ncbi.nlm.nih.gov/30282735/.
- ✓ Website: https://reframedb.org/
- (i) NavTIP: Start with the header link 'about' that provides a tutorial video on the library, a tutorial video on 'how to use reframedb', together with instructions on accessing the library. Website also has a link 'download list of compounds' which is useful for accessing the structures (SMILES string) and other information regarding all the compounds in the collection.

Vi-KURE - Viral KU Leuven Repurposing Compound Library (CD3, Virusbank Platform)

The Viral KU Leuven Repurposing compound library (Vi-KURE) contains around 325 antiviral small molecules which have been approved or have been in clinical development for a viral indication. The Center for Drug Design and Discovery (aka CD3) compiled this drug repurposing library in the context of the Virusbank Platform of KU Leuven. After careful analysis, the collection has been assembled from commercial sources and through custom synthesis of compounds. Further expansion of this library is planned in the future. The library can be made available in assay-ready plates for screening, typically in a collaborative setting. Interested researchers can contact CD3 directly through its website.







- Website: https://www.cd3.be/about-cd3
- (i) NavTIP: The website provides a weblink entitled 'Contact' or 'Collaborate with us' to connect with CD3 and obtain more information on how to access the library.



✓ Website: https://virusbankplatform.be

(i) NavTIP: The website provides a weblink entitled 'Contact' to connect with the VirusBank Platform and obtain more information on how to access the library.

Privileged Chemical Structure-Based Libraries

Certain chemical classes of compounds tend to be privileged as antiviral treatments, for example, nucleoside analogs and protease inhibitors. Indeed, herpes viruses, HIV, Hepatitis B and C, and now COVID-19 all have FDA approved drugs that are nucleoside analogs. Therefore, it is important to consider screening privileged chemical structure libraries that are predisposed towards the discovery of novel antivirals within the proven classes of antiviral drugs. Novel leads identified from these screens may have greater probability of clinical success based on the established precedent for these classes of chemotypes.

The type of libraries recommended for antiviral screening by INTREPID include but are not limited to: Nucleoside and Nucleotide Analogs; Protease Inhibitor Libraries; Peptidomimetics, Macrocycles and Metal-binding Motifs. The chemical leads identified through screening these libraries typically require considerable medicinal chemistry optimization that results in extended timelines before clinical development can begin. However, they are a good supplement to the screening of DAAs and drug repurposing libraries to identify promising chemical starting points.

Commercial-Sourced Privileged Chemical Structure-Based Libraries

Many of the commercial vendors market chemical structure-based libraries that range in size from a thousand to >10,000 compounds; examples to consider include Nucleoside and Nucleotide Analogs; Protease Inhibitor Libraries (covalent and non-covalent), Peptidomimetics, Macrocycles, and Metalbinding Motifs. In some cases, vendors also describe the availability of antiviral libraries that are based on the chemical structures of known antivirals. These chemical structure-based libraries are expected to be valuable sources of new leads for pandemic preparedness. Interested researchers are advised to conduct their own analysis of the commercial vendor collections as to their suitability for screening.

Source (Alphabetical)	Library Name	Compound Number**
APExBIO www.apexbt.com	DiscoveryProbe™ Protease Inhibitor Library	825
	Purine-based Nucleosides	240
Asinex	Pyrimidine-based Nucleosides	240
www.asinex.com	Nucleoside Mimetics	3,826
	Macrocycles	10,091



	Peptidomimetics	9,144
	α-helix mimetics	6,867
	Covalent Inhibitor Pre-Plated	972
	Metal Chelate	1,794
	Antiviral Library	6,827
	Purine Based Nucleoside Mimetics	1,300
ChemDiv	Nucleoside Mimetics	2,600
	Cysteine Proteases Inhibitors	9,144
www.chemdiv.com	Macrocycles	2,335
	Peptidomimetic	36,711
	Nucleoside Mimetics	320
Enamine	Macrocycles	1,952
www.enamine.net	Antiviral Library (nucleoside-like cpds)	3,200
	Cysteine-Focused Covalent	3,200
MedChemExpress	Cysteine-Protease Focused Covalent	2,000
www.medchemexpress.com	Cysteine Protease Focused	9,000
SelleckChem	Nucleoside Analogue	228
	Macrocyclic Compound	184
www.selleck.com	Protease Inhibitor	454

^{**}Accessed on October 1-6, 2025.

Novel Compound Screening Libraries

The screening of diverse collections of novel compounds which have no known pharmacological activity, remains a worthwhile endeavor for pandemic preparedness despite the longer timelines required to identify a clinical compound. Novel compound libraries can include just a few hundred compounds (e.g., fragment libraries, many tens of thousands of compounds; chemical diversity libraries, or billions of compounds; DNA-encoded libraries (DELs)). The goal of these screening library collections is to generate a novel (previously unidentified), chemical starting point for medicinal chemistry optimization so in most cases the new chemical matter is expected to have favorable intellectual property potential. In our view, the best novel compound libraries are those that have been carefully curated so that their content permits a broad range of chemical space to be covered. Large libraries (>10,000 cpds) are generally only available through commercial vendors, but one open access library is available for pandemic preparedness screening.



Diverse Compound Library

KU Leuven maintains a 350K diverse compound library that is wellsuited towards the discovery of novel chemical starting points for drug discovery. The Center for Drug Design and Discovery (aka CD3) compiled this compound library in the context of the Virusbank Platform of KU Leuven. The library is accessible through collaboration and interested researchers can contact CD3 directly through its website.









- Website: https://www.cd3.be/about-cd3
- (i) NavTIP: The website provides a weblink entitled 'Contact' or 'Collaborate with us' to connect with CD3 and obtain more information on how to access the library.
- Website: https://virusbankplatform.be
- (i) NavTIP: The website provides a weblink entitled 'Contact' to connect with the VirusBank Platform and obtain more information on how to access the library.

NCATS Artificial Intelligence Diversity (AID) Library

This more recent NCATS library, AID, contains almost 7,000 compounds that were selected from the ENAMINE corporate libraries. The selection process used machine learning and artificial intelligence



to maximize compound diversity with minimal compound numbers. INTREPID recommends this library due to its more manageable size for antiviral screening, especially for screens requiring BSL3/4 controls. Public access to the library and screening within NCATS is through collaboration.

- Website: https://ncats.nih.gov/research/research-activities/compound-management
- (i) NavTIP: Website has a contact email for enquiries.

NCATS Genesis Chemical Library

This large screening collection of >100K compounds is designed to provide a high-quality starting point for medicinal chemistry optimization. The library contains more than 1,000 different core



scaffolds that are readily purchased, with 20 to 100 compounds based on each scaffold. The library incorporates valuable lessons in library design including chemotypes inspired by naturally occurring compounds with three-dimensional properties, and spirocyclic compounds as well as non-spiro novel chemotypes. The novelty of the design is aimed towards the discovery of new intellectual property, as well as providing opportunities for first-in-class compounds. Its overall composition keeps in mind known drug-like properties, such as solubility, lipophilicity, hydrogen bond donor/acceptor status and



molecular weight. Overall, this library is a good screening choice to identify high-quality chemical starting points that might readily be advanced towards new antivirals.

Website: https://ncats.nih.gov/research/research-activities/compound-management/chemical-libraries

(i) NavTIP: Website has a contact email for enquiries about this collection.

Commercial-Sourced Novel Compound Screening Libraries

Almost all commercial library vendors list novel, pharmacologically untested compounds. In general, aside from the fragment libraries, the libraries in this category are large (>10,000 compounds) and therefore, high-throughput screening capabilities are needed which can be challenging in a BSL3/4 environment. Diversity compound collections that are designed to efficiently map chemical space and only contain compounds with drug-like properties are preferred. Interested researchers are advised to review and conduct their own diligence and cost analysis on commercially available novel compound libraries.

Source (Alphabetical)	Library Name	Compound Number***
Asinex	Asinex Fragments	20,061
	Diversity Pre-plated Set	119,877
www.asinex.com	Diversity-2 Pre-plated Set	282,478
Oh and Bird	Soluble Diversity	15,500
ChemDiv	SMART™	55,000
www.chemdiv.com	Fragments	11,269
	Discovery Diversity Set	10,240
Enamine	Discovery Diversity Set	50,240
www.enamine.net	High-fidelity Fragment	1,920
	3D Shape Diverse Fragment	1,200
Mariola and Francisco	50K Diversity	50,000
MedChemExpress	3D Diverse Fragment	5,400
www.medchemexpress.com	5K Scaffold Library	5,000
SelleckChem	Fragment Library	1,015
www.selleck.com	HTS Library for Drug Discovery	99,008

^{***}Accessed on October 1-6, 2025.



CONCLUSION

The INTREPID Alliance Registry of Antiviral Compound Libraries has been created to focus future antiviral screening efforts and help accelerate the drug discovery process for pandemic preparedness. The Antiviral Compound Registry primarily includes drug repurposing libraries that contain varying numbers of direct-acting antivirals, and other collections of importance for antiviral drug discovery. Many of the non-commercial compound collections are readily accessible to organizations across the globe through collaboration agreements.

We found no purposefully built, comprehensive library of preclinical and clinical direct-acting antivirals to include in the listing. Based on the small molecule approvals for COVID-19, an open access collection of direct-acting antivirals would be a valuable addition to the library.

INTREPID also welcomes information about additional compound collections to improve our listing. Send us a message through our <u>online form</u>.

On occasion, antiviral compounds get shelved within different organizations for financial, business, or other reasons. These compounds often have inherent value, serving as tool compounds or potential leads for future antiviral programs.

Some of the libraries listed in our registry will consider the submission of new compounds, that meet certain criteria, into their existing libraries. Establishing contact with these institutions to potentially adopt promising antiviral compounds is encouraged.

The institutions that may accept compounds include:

Calibr-Skaggs, Scripps Research: https://reframedb.org/

KURE - KU Leuven Repurposing Compound Library (CD3): https://www.cd3.be/about-cd3



Disclaimer

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

As part of our efforts, the INTREPID Alliance publishes and maintains the Antiviral Toolbox to be a non-promotional resource with the purpose of knowledge-sharing and to support better pandemic preparedness. The Antiviral Toolbox includes the Registry of Antiviral Compound Libraries, a registry of compound libraries designed to facilitate research. These registries are third-party resources and have been developed independently of, and at arm's length, from INTREPID Alliance and its members. The INTREPID Alliance is not responsible for their content. The INTREPID Alliance also publishes and maintains a centralized list of promising investigational compounds. 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 noncommercial. It is not designed or intended to advertise or promote any pharmaceutical product or therapy or to advance the commercial interests of any company.

References

- ¹ World Health Organization (WHO). Prioritizing diseases for researcher and development in emergency contexts. Accessed: 8 October 2025.
- ² Draghia-Akli, R, et al. The Indispensable Value of Small-Molecule Antivirals in Epidemic and Pandemic Preparedness. Clinical Infectious Diseases, 2025. https://doi.org/10.1093/cid/ciaf476.
- ³ Beigel JH, et al. Remdesivir for the Treatment of Covid-19 Final Report. N Engl J Med. 2020 Nov 5;383(19):1813-1826. doi: 10.1056/NEJMoa2007764.
- ⁴ Mulangu S, et al. A Randomized, Controlled Trial of Ebola Virus Disease Therapeutics. N Engl J Med. 2019 Dec 12;381(24):2293-2303. doi: 10.1056/NEJMoa1910993.
- ⁵ Owen DR, et al. An oral SARS-CoV-2 Mpro inhibitor clinical candidate for the treatment of COVID-19. Science. 2021 Dec 24;374(6575):1586-1593. doi: 10.1126/science.abl4784.
- ⁶ Emory University. About Molnupiravir. Accessed: 8 October 2025.
- ⁷ Geraghty RJ, et al. Broad-Spectrum Antiviral Strategies and Nucleoside Analogues. *Viruses*. 2021; 13(4):667. https://doi.org/10.3390/v13040667.

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