UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): June 07, 2023

ENANTA PHARMACEUTICALS, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-35839**	**04-3205099**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**
500 Arsenal Street Watertown, Massachusetts		**02472**
(Address of Principal Executive Offices)		**(Zip Code)**

Registrant's Telephone Number, Including Area Code: (617) 607-0800

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, par value $0.01 per share	ENTA	Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

On June 7, 2023, Enanta Pharmaceuticals made available on its website an updated corporate presentation with additional analyses of the Phase 2 SPRINT trial evaluating EDP-235 in standard risk patients with COVID-19. A copy of the presentation is being furnished as Exhibit 99.1 hereto and is incorporated herein by this reference.

Additional analyses demonstrate a virologic effect of EDP-235 in the subset of patients in whom antibodies to the SARS-CoV-2 nucleocapsid were not detected (consistent with no recent natural infection with COVID-19), whom we refer to as nucleocapsid-negative patients. Specifically, in this nucleocapsid-negative patient subset, we observed a 0.8 log viral load decline at Day 5 with 400mg of EDP-235 compared to placebo, and a 1.0 log viral load decline at Day 5 in a subset of those nucleocapsid-negative patients who were treated within 3 days after symptom onset. These analyses continue to support further development of EDP-235.

The information in Item 7.01 of this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in any such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description
99.1	Corporate Presentation dated June 7, 2023
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ENANTA PHARMACEUTICALS, INC.

Date: June 7, 2023

By: /s/ Paul J. Mellett

Paul J. Mellett
Senior Vice President, Finance and Administration and Chief Financial Officer

Exhibit 99.1

Enanta Pharmaceuticals
Great Chemistry Cures

Corporate Presentation

June 7, 2023

Forward Looking Statements Disclaimer

This presentation contains forward-looking statements concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our research and development programs, our business and the industry in which we operate. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would,” and other similar expressions that are predictions of or indicate future events and future trends, as well as other comparable terminology. These forward-looking statements include, but are not limited to, statements about overall trends, royalty revenue trends, research and clinical development plans and prospects, liquidity and capital needs and other statements of expectations, beliefs, future plans and strategies, anticipated events or trends, and similar expressions. These forward-looking statements are based on our management’s current expectations, estimates, forecasts and projections about our business and the industry in which we operate and our management’s beliefs and assumptions. These forward-looking statements are not guarantees of future performance or results and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this presentation may turn out to be inaccurate.

Please refer to the risk factors described or referred to in “Risk Factors” in Enanta’s most recent Annual Report on Form 10-K, and other periodic reports filed with the Securities and Exchange Commission. Enanta cautions investors not to place undue reliance on the forward-looking statements contained in this presentation. These statements speak only as of the date of this presentation, and Enanta undertakes no obligation to update or revise these statements, except as may be required by law.

A Proven Approach to Drug Discovery

Using a proven, chemistry-driven approach to develop best-in-class small molecule drugs for viral infections

Robust Clinical Stage Pipeline

- **RSV:** Phase 2 in pediatric patients (RSVPEDs)
- Phase 2b in adult stem cell transplant patients (RSVTx)
- Phase 2b in high-risk adults (RSVHR)
- Phase 1 in healthy volunteers with second RSV candidate
- **COVID-19:** Phase 2 (SPRINT) completed
- **HBV:** Two Phase 1b studies completed

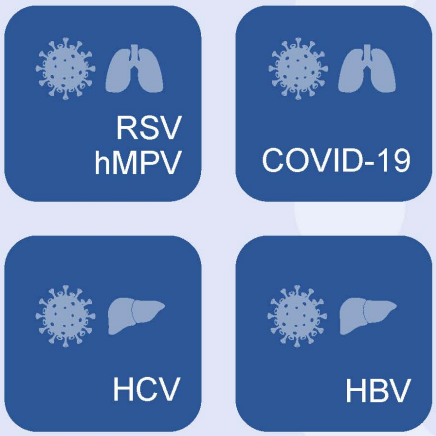
Proven Track Record of Success

Glecaprevir – HCV protease inhibitor in MAVYRET®/MAVIRET®
$86.2M in fiscal 2022 royalties on HCV regimens

Strong Balance Sheet

Strong balance sheet and royalties to support robust pipeline
$225M in cash at March 31, 2023*

*Does not reflect an additional $200M received in April 2023 from sale of 54.5% of future MAVYRET/MAVIRET royalties

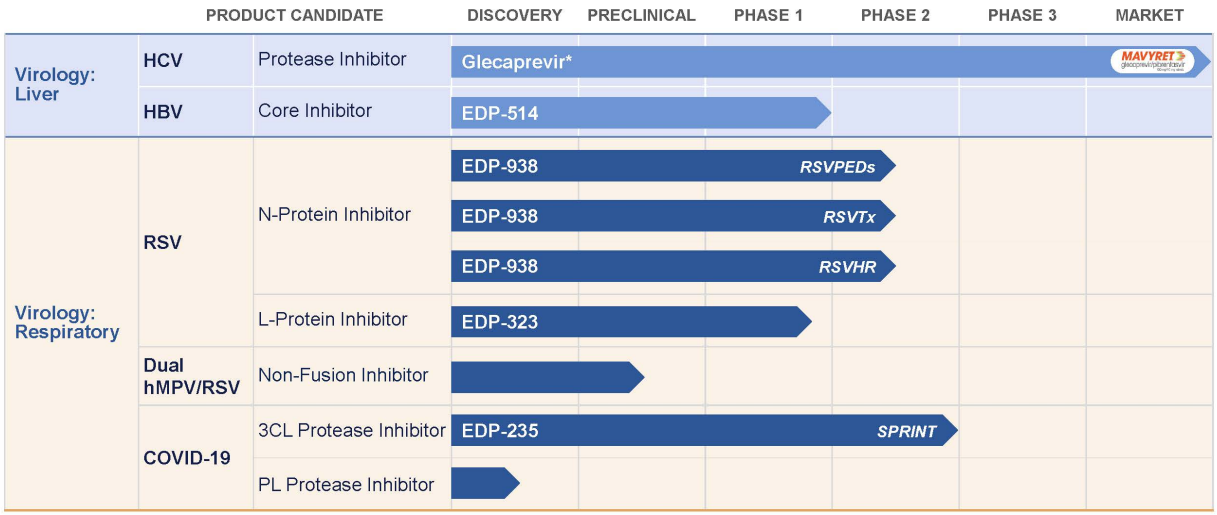


Our Therapeutic Focus

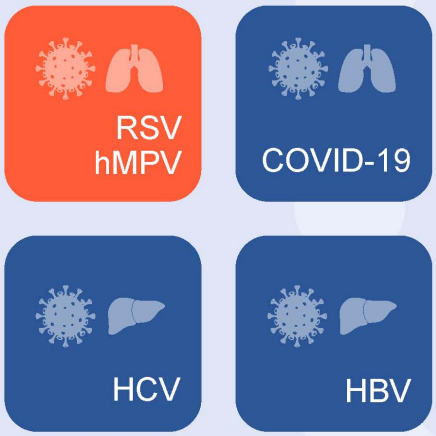
Leveraging our core strength in Hepatitis C to become a leader in oral treatments for **viral** infections

Several therapeutic areas with goal of building multiple approaches in each

Enanta Pipeline



*Fixed-dose antiviral combination contains glecaprevir and AbbVie's NS5A inhibitor, pibrentasvir. Marketed by AbbVie as MAVYRET® (U.S.) and MAVIRET® (ex-U.S.).



Our Therapeutic Focus

Leveraging our core strength in Hepatitis C to become a leader in oral treatments for **viral** infections

Several therapeutic areas with goal of building multiple approaches in each

Respiratory Syncytial Virus (RSV)

Causes severe lung infections, including bronchiolitis (infection of small airways in the lungs) and pneumonia (an infection of the lungs). No safe and effective treatments.

Higher risk populations for severe illness:

- Young infants and children
- Premature babies
- Older adults especially those 65+ years
- People with chronic lung disease or certain heart problems
- People with weakened immune systems (e.g. HIV, organ transplant, chemotherapy)

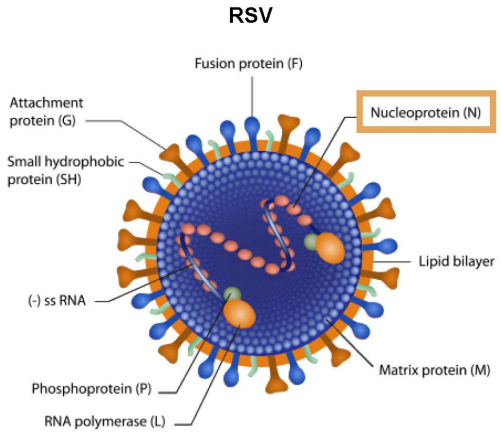
RSV at a Glance

Children < 5 years[1]	Adults > 65 years[2]
33M global cases	
3M global hospitalizations	177K U.S. hospitalizations
101K global deaths	14K U.S. deaths

Sources: 1. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00478-0/fulltext 2. https://pubmed.ncbi.nlm.nih.gov/15858184/

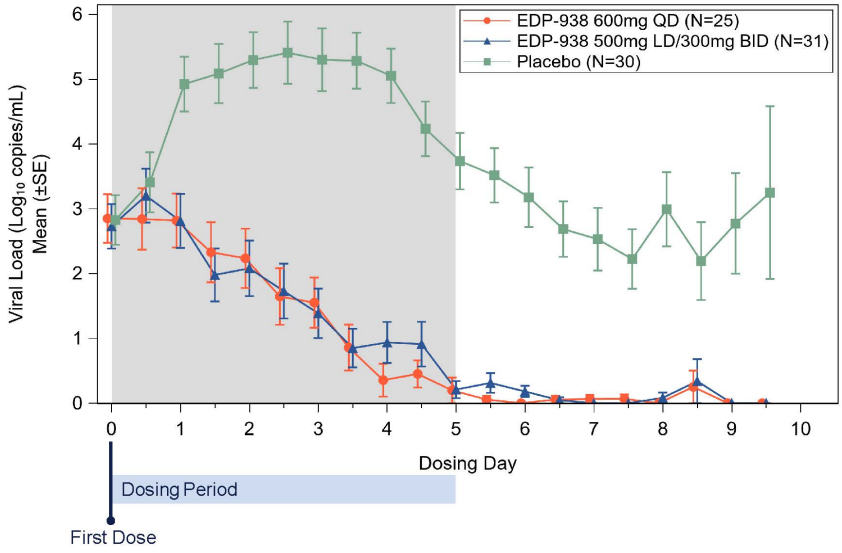
EDP-938: N-Protein Inhibitor for RSV

- EDP-938 is the only N-inhibitor in later stage clinical development
  - Non-fusion approach directly targets viral replication vs. entry
- Granted Fast Track Designation by the FDA
- Strong preclinical virologic profile
  - Nanomolar inhibitor of both RSV-A and RSV-B
  - Antiviral potency across all clinical isolates tested
  - High-barrier to resistance *in vitro*
  - Synergy with other drug mechanisms (e.g. fusion and L-inhibitors)
  - Active against virus variants resistant to other mechanisms
  - Robust efficacy data in non-human primate model



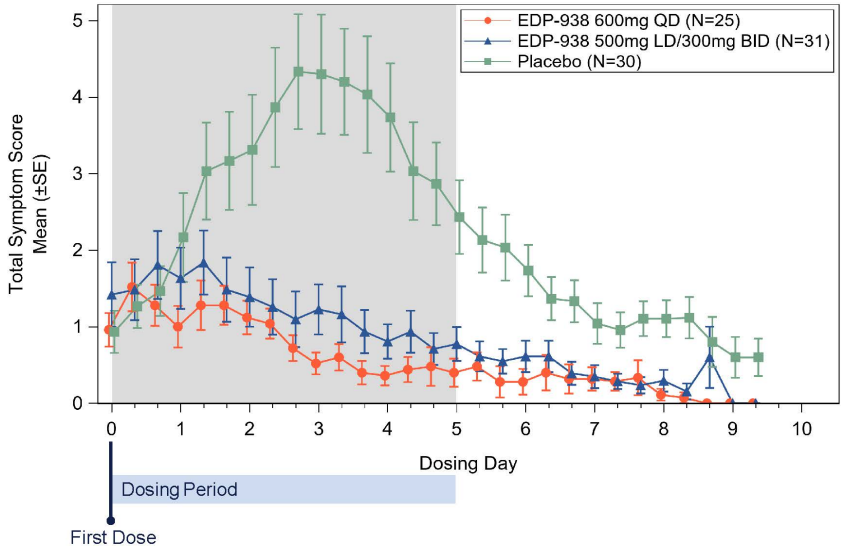
EDP-938 Robust Antiviral Effect in Human Challenge Model

Rapid and Sustained Reduction in Viral Load in Both Active Arms Compared to Placebo (71%, 74% ↓ AUC; P<0.001)



EDP-938 Robust Symptom Reduction in Human Challenge Model

Rapid and Sustained Attenuation of RSV Symptoms in Both Active Arms Compared to Placebo (68%, 74% ↓ AUC; P<0.001)



EDP-938: Summary of Data Across Completed Clinical Studies

- Safety and Pharmacokinetic Summary
  - Generally safe and well-tolerated; AEs infrequent, generally mild, and resolved in follow-up
  - No serious or severe AEs
  - Consistent safety profile observed in approximately 500 subjects exposed to date
  - Mean trough concentrations were approximately >20-40x higher than EC_{90}
- Efficacy Summary
  - Phase 2a challenge study: highly statistically significant ($p<0.001$) reduction in both in RSV viral load and clinical symptoms compared to placebo after 5 days of treatment
  - RSVP study in otherwise healthy adults with community-acquired, mild, self-resolving RSV
    - Did not meet primary endpoint of clinical symptom reduction or secondary antiviral endpoints
    - Statistically significant percent of subjects achieved undetectable RSV RNA at end of treatment
    - Although treated within 48 hours of symptom onset, viral load and symptoms had already peaked and were declining, indicating infection resolves quickly in this otherwise healthy population

EC_{90}: a measure of potency; the concentration of drug that results in 90% inhibition of viral replication *in vitro*

EDP-938: Potential to be the Leading Antiviral Treatment for RSV

Properties		EDP-938	Ziresovir/ AK0529	Sisunatovir/ PF-07923568[1]
Mechanism		**N inhibitor**	Fusion inhibitor	Fusion inhibitor
Pre-clinical Effectiveness After Infection		Yes	No	No
Clinical Efficacy (challenge study[4])	Viral Load Reduction[2]	75% (p<0.001)	n/a	55% (p=0.007)
	Symptoms[3]	71% (p<0.02)	n/a	71% (p=0.018)
Resistance Barrier		**High**	Low	Low
Dosing Frequency		**5 days; QD**	5 days; BID	5 days; BID
Stage of Development		**Global Phase 2 (Peds, HR Adults, HCT)**	Regulatory Review – China[5] (Peds)	Global Phase 2 (Peds)

Only includes compounds in development with clinical data in patients

Sources: 1. DeVincenzo et al, 2020; AAC; 64(2); 2. % reduction in viral load (VL) area under the curve (AUC) as measured by qPCR; 3. % reduction in total symptom score (TSS) AUC; 4. Data from selected dose moving forward 5. Ark Bio Press Release December 2022

HR = high risk; HCT = Hematopoietic Cell Transplant Recipients. n/a = not available; challenge study not performed

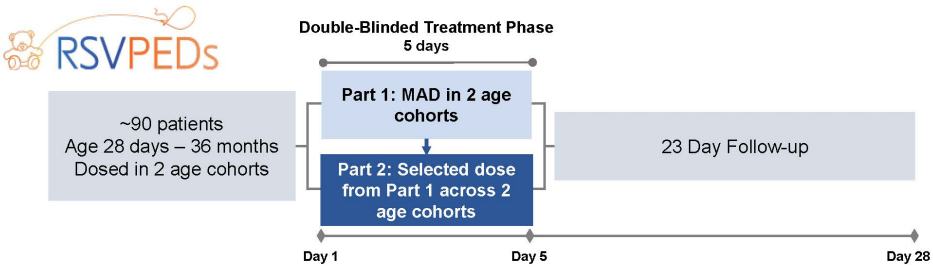
EDP-938 Development Plans:
Treatment for Patients at High-Risk for Severe RSV Infection

High-risk populations have reduced RSV immunity, resulting in a higher and longer duration of viral load and greater disease severity, allowing a bigger window to observe benefit

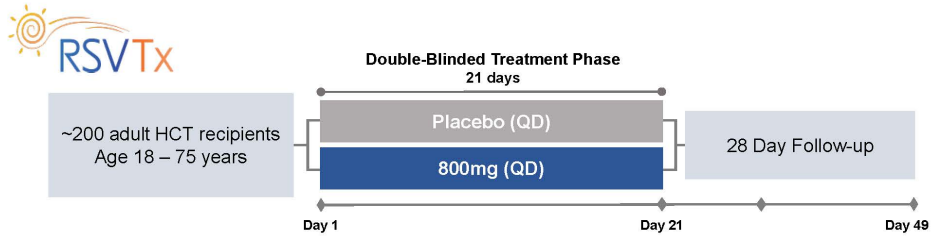
Goal: Treat patients at high-risk for developing severe infection leading to hospitalization or death, populations with the most significant unmet need

RSVPEDs	Infants and young children
RSVTx	Immunocompromised (e.g.; HSC, lung transplant)
RSVHR	Elderly Chronic heart or lung disease (e.g. COPD, CHF, asthma)

Ongoing Phase 2 Clinical Trials: RSVPEDs and RSVTx



- **Primary Objective, Part 1:** Safety and PK of EDP-938
- **Primary Objective, Part 2:** Antiviral activity of EDP-938



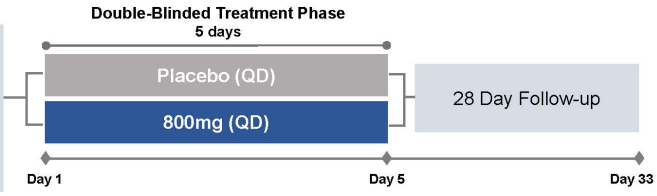
- **Primary Objective:** Effect of EDP-938 on development of LRTC in HCT subjects with acute RSV URTI
- **Secondary Objectives:** Viral load, progression to respiratory failure or all-cause mortality, PRO, PK and safety

LRTC: lower respiratory tract complication; HCT: hematopoietic cell transplant; URTI: upper respiratory tract infection; PRO: patient reported outcomes; PK: pharmacokinetics

Newest Phase 2 Study: RSVHR (High Risk Populations)

RSVHR

~180 adults with at least one of the following:
- COPD
- Congestive heart failure
- Asthma*
- Age ≥ 65*



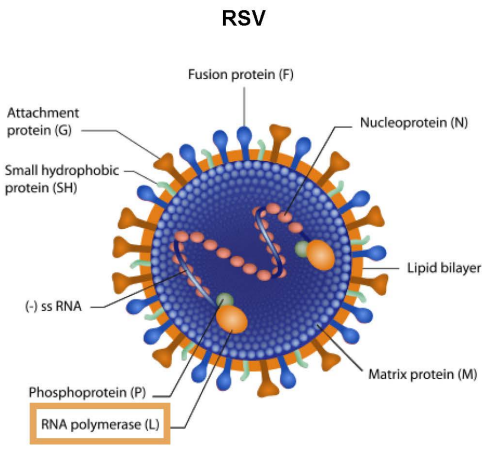
*The total proportion of subjects either ≥65 years of age or patients with asthma combined will be capped at 20%.

- **Primary Objective:** Time to resolution of RSV LRTD symptoms as assessed by RiiQ symptom scale through Day 33
- **Secondary Objectives:** PROs, MAVs, viral load, antibiotic use, bronchodilator use, corticosteroid use, hospitalization, ICU, mechanical ventilation, all cause mortality, pharmacokinetics and safety

LRTD: lower respiratory tract disease; RiiQ: Respiratory Infection Intensity and Impact Questionnaire, PRO: patient reported outcomes; MAVs: medically attended visits

EDP-323: RSV L-Protein Inhibitor

- Novel, oral, selective direct-acting antiviral targeting the RSV L-protein
- Granted Fast Track Designation by the FDA
- Potential to be used alone or in combination with other classes of RSV inhibitors, such as EDP-938
  - Additive to synergistic with F-, N-, L-inhibitors and ribavirin
  - Not expected to have cross resistance with other mechanisms
- Sub-nanomolar potency against RSV-A and RSV-B
- Phase 1 readout targeted for June 2023



EDP-323 is a Potent Inhibitor of RSV Replication *In Vitro* With Excellent Preclinical Pharmacokinetics

- Sub-nanomolar inhibition of RSV replication in a range of cell types
  - Active against both major RSV subtypes

Virus	Cell Type	EC_{90} (nM)
RSV-A Long	pHAEC ALI	**0.27**
RSV-B VR-955	pHAEC ALI	**0.33**
RSV-A Long	HBEC	**0.16**

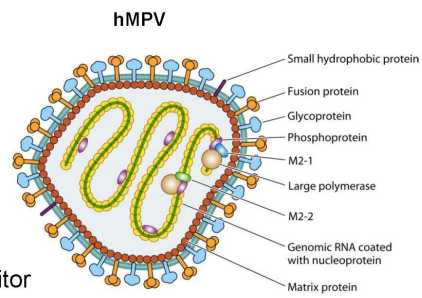
RT-qPCR readout
pHAEC ALI: primary human airway epithelial cells in air-liquid interface culture
HBEC: human bronchial epithelial cells
50% cytotoxic concentration (CC50) at 5 days = 17,000 – 29,000 nM

- Protects mice in a dose-dependent manner from RSV infection as quantified by both virological and pathological endpoints
- Well-absorbed with good plasma exposure across multiple preclinical species
- High permeability/absorption potential in humans

Human Metapneumovirus (hMPV)

Important cause of respiratory tract infections (RTIs), particularly in children, the elderly and immunocompromised individuals. No approved vaccine or therapeutics available.

- Paramyxovirus closely related to RSV
  - hMPV replication dependent on several viral proteins that form a multiprotein complex in cells
  - Multiple potential targets for hMPV drug discovery
- Enanta nanomolar hMPV inhibitor leads under active optimization



hMPV at a Glance[1]

Serious respiratory infections can occur in children under 5 years old

Second most common cause of lower RTIs in children (behind RSV)

Reinfection with hMPV occurs throughout life

Source: 1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1539100/

hMPV/RSV Dual Inhibitor Discovery Program

- Enanta is developing novel, oral, direct-acting antivirals specifically designed to target both hMPV and RSV
- Potential for a broader spectrum antiviral
  - Respiratory infections diagnosed as either hMPV or RSV treated with a single agent
- Enanta has discovered dual inhibitors with nanomolar potency
  - Activity maintained against multiple genotypes and strains of hMPV and RSV in a range of cell types

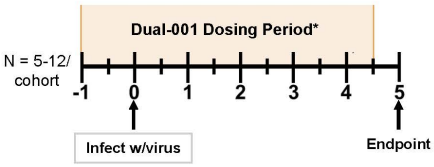
Prototype Inhibitor: Dual-001

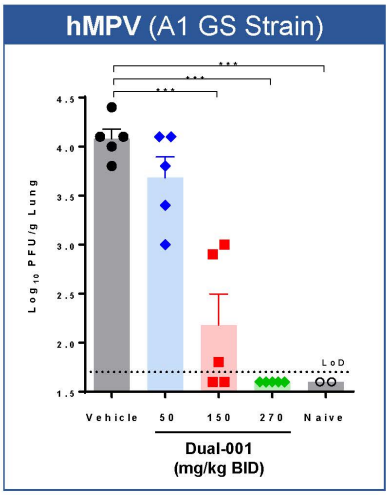
Virus	Genotype	Assay Endpoint/Cells	Potency (EC_{90} nM)
hMPV	A1	CPE/LLC-MK2	18
	A2		36
	B1		0.6
	B2		4
	A2	qPCR/pHAEC	17
RSV	A	CPE/HEp-2	0.4
	B		0.1

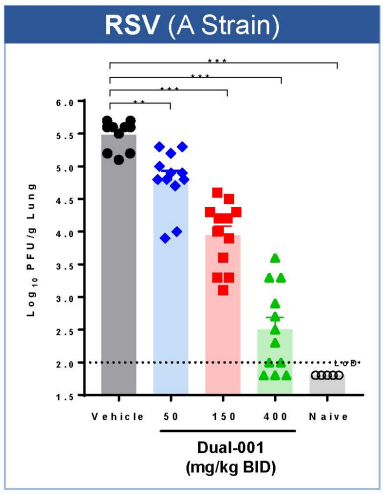
CPE: cytopathic effect; **qPCR:** quantitative polymerase chain reaction **LLC-MK2:** monkey kidney; **HEp-2:** human epithelium cells; **pHAEC:** primary human airway epithelial cells

Prototype Dual Inhibitor Blocks Both hMPV and RSV Replication

- Prototype inhibitor Dual-001 potently blocks replication of both hMPV and RSV, in a dose-dependent manner, in respective mouse models

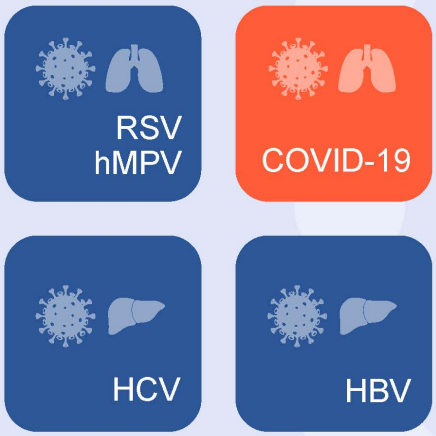






**p<0.01, ***p<0.001

*Dosing was initiated 1 day before infection in the RSV study and 12 hours before infection in the hMPV study and continued for a further 4.5 days in both models.



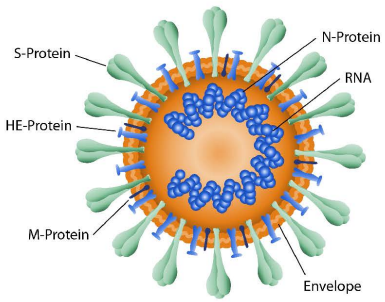
Our Therapeutic Focus

Leveraging our core strength in Hepatitis C to become a leader in oral treatments for **viral** infections

Several therapeutic areas with goal of building multiple approaches in each

EDP-235: Oral Protease Inhibitor Designed for COVID-19

- Novel, oral, direct-acting antiviral specifically designed to target the SARS-CoV-2 3CL protease
- Potent and selective inhibition of SARS-CoV-2 3CLpro enzyme
  - Potent inhibition in multiple cellular models
- Potent against SARS-CoV-2 variants, including Omicron variants
- Preclinically active against other human coronaviruses
- High barrier to resistance preclinically
- Good target tissue distribution (e.g. lung to plasma AUC ratio >4)
- Robust treatment effect & prevention of transmission in ferret model
- Phase 1 supported 200 or 400mg once-daily as safe & efficacious dose
  - Plasma drug levels 7-13x higher than the EC90, without ritonavir boosting
- Phase 2 study (SPRINT) topline data presented in May



EDP-235: Highly Potent 3CLpro Inhibitor and Retains Activity Against SARS-CoV-2 Variants

Assay		Variant / Lineage *(mutation)*	Potency (EC_{90}, nM)
Biochemical Activity	3CLpro FRET (IC_{50})	**Omicron** *(P132H)* [B.1.1.529, BA.2, BA.5, BA.2.75, BQ.1, BQ1.1, XBB.1]	**4.1** ± 0.8
		Alpha [Original] / **Delta*** [B.1.617.2]	**5.8** ± 3.7
		B.1.1.318 *(T21I)*	**2.0** ± 0.1
		Beta [B.1.351] *(K90R)*	**2.8** ± 0.9
		Beta [B.1.351.2] *(K90R/A193V)*	**5.4** ± 1.0
		B.1.617.3 *(A194S)*	**5.7** ± 0.5
		C.36.3 *(G15S)*	**4.7** ± 2.5
		Zeta [P.2] *(L205V)*	**3.4** ± 1.0
Live Virus	Vero E6 +PGPi, CPE readout (EC_{90})	**Omicron** [B.1.1.529]	**5.1** (n=1)
		Delta [B.1.617.2]	**9.1** ± 2.9
		Alpha [Original]	**11** ± 8

Values average of replicate experiments except where noted
*3CLpro sequences for the ancestral A lineage and B.1.617.2 (Delta) variant are identical
FRET: fluorescence resonance energy transfer, P-gpi: P-glycoprotein inhibitor CP-100356 (2 µM), CPE: cytopathic effect

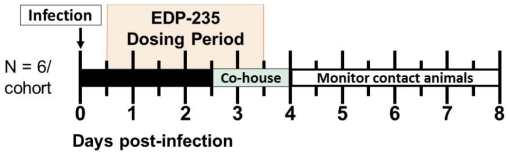
EDP-235 is Efficacious in a Ferret Model of COVID-19

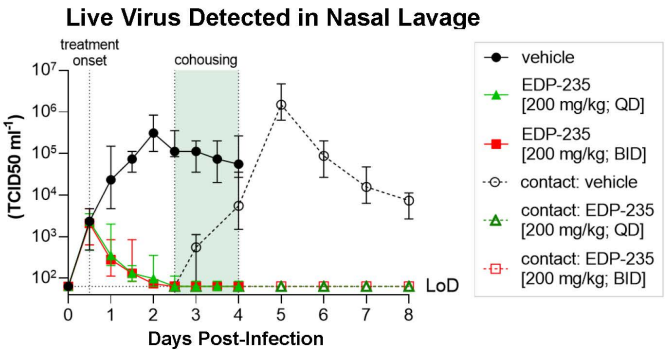
Antiviral Treatment Effect

- EDP-235 treatment of SARS-CoV-2 infected animals resulted in a rapid and robust decline in viral replication

Transmission Prevention

- Infected, vehicle-treated animals went on to infect healthy co-housed contact animals (black lines in graph)
- Infected, EDP-235 treated animals did not infect healthy co-housed contact animals (red/green lines)
- Supports the potential for EDP-235 to reduce household transmission





TCID50: 50% tissue culture infectious dose

EDP-235: Phase 1 Safety, Tolerability and Pharmacokinetics

- Randomized, double-blind, placebo-controlled Phase 1 study in healthy volunteers (n=72)
  - Single and multiple ascending doses (SAD: 50 – 800mg and MAD: 200 – 800mg once-daily)
- Generally safe and well-tolerated up to 400mg for up to 7 days
  - Majority of AEs were mild, with the most frequent being headache and GI related symptoms
  - Three subjects discontinued due to an AE: one moderate headache in the 400mg fasted cohort, one severe headache in the 800mg fed cohort and one grade 3 ALT/grade 2 AST elevation in the 800mg fed cohort
- Pharmacokinetics: 200mg or 400mg taken once-daily with food achieved target exposures

Measured Plasma Drug Multiples*

Variant	200mg QD	400mg QD
Omicron	7x	13x

Predicted Lung Drug Multiples*

Variant	200mg QD	400mg QD
Omicron	28x	52x

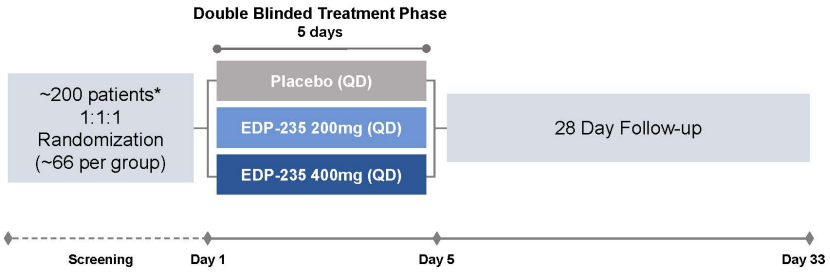
  - Exposure increased proportionally with increasing single and multiple doses
  - Consistent half-life ranging from 13 to 22 hours
  - Exposure enhanced with food administration regardless of fat content

*Multiples by which mean trough drug plasma levels at steady state are higher than protein adjusted EC90 as measured in Vero cells

SPRINT: **S**ARS-CoV-2 **PR**otease **IN**hibitor **T**reatment
Phase 2 Study for EDP-235 in Non-hospitalized Standard Risk Patients

Enanta Pharmaceuticals

SPRINT



- **Primary Objective:** Evaluation of safety and tolerability
- **Secondary Objectives:** Evaluation of virologic endpoints, clinical symptoms and outcomes, and pharmacokinetics

Eligibility Criteria:
- Non-hospitalized adults who are not at increased risk for developing severe disease
- Initial onset of symptoms within 5 days of randomization
- At least 2 COVID-19 symptoms with one of at least moderate severity
- Have not been vaccinated or infected with SARS-CoV-2 less than 90 days of enrollment

*Patients were stratified by age (≤50 years or 51 to 64 years) and duration of COVID-19 symptoms (≤ 3 days or >3 days and ≤5 days) prior to randomization

SPRINT Phase 2 Results: Conclusions

Safety

- EDP-235 was generally safe and well tolerated
- Low frequency of adverse events; most were mild in severity
  - 1.3%, 6.4%, and 2.6% in the EDP-235 200mg, 400mg and placebo arms
- No serious adverse events or discontinuations due to adverse events

Clinical Symptoms

- Statistically significant improvement in total symptom score (TSS) achieved at multiple timepoints for EDP-235 400mg
  - Patients enrolled within 3 days of symptom onset showed a statistically significant improvement in TSS for EDP-235 400mg at all time points
- No difference in time to 14 symptom improvement for EDP-235 compared with placebo
  - EDP-235 400mg significantly reduced duration of 6 symptom subset by 2-days compared to placebo in patients enrolled within 3 days of symptom onset

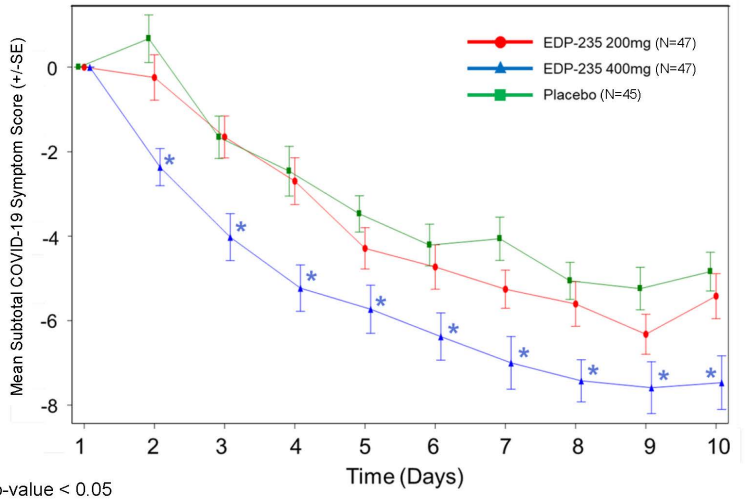
Virology

- No difference between treatment arms and placebo for viral RNA decline
  - Additional analyses demonstrate virologic effect in multiple patient subsets at 400mg: 0.4 log for baseline viral load >5 log, 0.8 log for nucleocapsid negative (suggesting no recent natural infection), and 1 log for nucleocapsid negative and symptom onset within 3 days
- High degree of nucleocapsid positivity & rapid decline in nasal RNA in all study arms indicates a highly immune population

Subtotal Symptom Score: Change from Baseline

(ITT-c population within 3 days of symptom onset; 6 selected symptoms[1])

- Prespecified population enrolled within 3 days of symptom onset showed a statistically significant improvement in a subset of 6 symptoms for EDP-235 400mg compared to placebo at all time points



[1]COVID-19 Selected Symptoms:

Respiratory: Shortness of Breath, Sore Throat, Stuffy or Runny Nose

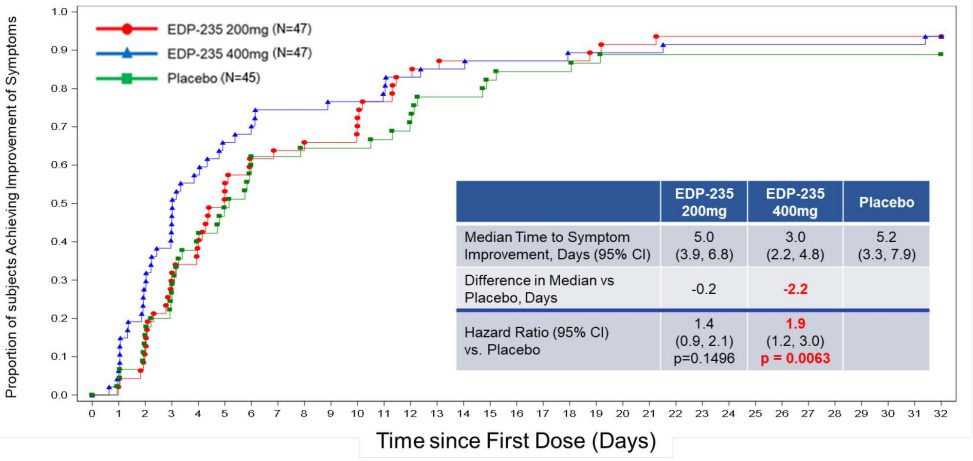
Systemic: Chills or Shivering, Feeling Hot or Feverish, Headache

* Nominal p-value < 0.05

Subtotal Symptom Score: Change from Baseline

(ITT-c population within 3 days of symptom onset; 6 selected symptoms[1])

- EDP-235 400mg significantly reduced duration of 6 symptom subset by 2-days compared to placebo in patients enrolled within 3 days of symptom onset



	EDP-235 200mg	EDP-235 400mg	Placebo
Median Time to Symptom Improvement, Days (95% CI)	5.0 (3.9, 6.8)	3.0 (2.2, 4.8)	5.2 (3.3, 7.9)
Difference in Median vs Placebo, Days	-0.2	**-2.2**	
Hazard Ratio (95% CI) vs. Placebo	1.4 (0.9, 2.1) p=0.1496	**1.9** (1.2, 3.0) **p = 0.0063**	

[1]COVID-19 Selected Symptoms:
Respiratory: Shortness of Breath, Sore Throat, Stuffy or Runny Nose
Systemic: Chills or Shivering, Feeling Hot or Feverish, Headache

No difference in time to 14 symptom improvement was observed for EDP-235 compared with placebo

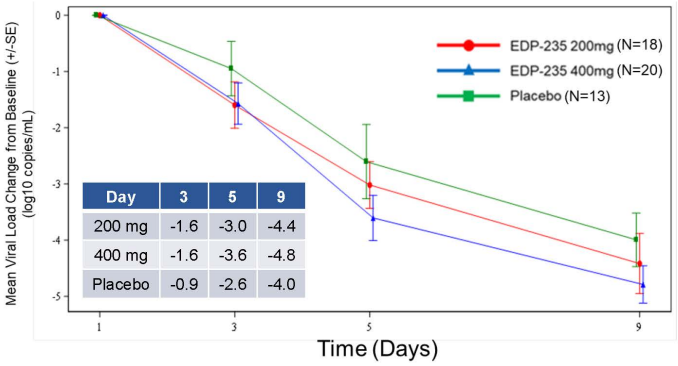
SPRINT: Symptom Summary

- Improvement in 14 symptom TSS for 400mg EDP-235 compared to placebo:
  - Statistical significance achieved at multiple timepoints in full ITT-c population
  - Statistical significance at all time points in a prespecified population enrolled within 3 days of symptom onset
  - Effect enhanced in prespecified population enrolled within 3 days of symptom onset in a subset of 6 symptoms
- Statistically significant reduction in median time to symptom improvement by with EDP-235 400mg compared to placebo for the subset of 6 symptoms
  - 1-day improvement in full ITT-c population
  - 2-day improvement in patients enrolled within 3 days of symptom onset

SPRINT: Viral RNA Change from Baseline

ITT-c population within 3 days of symptom onset and nucleocapsid negative

- Seropositive: presence of antibodies to COVID, generated by prior natural infection and/or vaccination (≥1)
  - Natural infection produces antibodies to both nucleocapsid and spike viral proteins
  - Vaccination produces antibodies only to spike viral protein
  - All antibodies are detected for years after vaccination or natural infection
- Nucleocapsid seropositive indicates prior natural infection, which produces greater sustained mucosal immunity (nasal IgA antibody levels) [1,2]



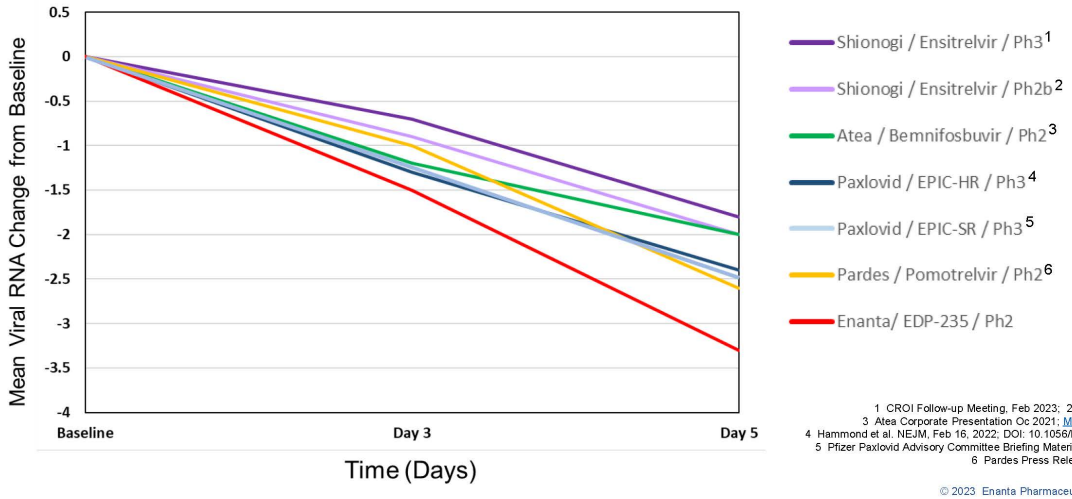
Day	3	5	9
200 mg	-1.6	-3.0	-4.4
400 mg	-1.6	-3.6	-4.8
Placebo	-0.9	-2.6	-4.0

- Viral load decline at Day 5 for the 400mg arm compared to placebo:
  - **0.8 log** in nucleocapsid negative patients (~40% of the ITT-c population)
  - **1 log** in nucleocapsid negative patients enrolled within 3 days of symptom onset

1 Mucosal IgA against SARS-CoV-2 Omicron Infection, N Engl J Med 2022; 387:e55.
2 Collier, A. Y. et al. Sci. Transl Med. 2022 Apr 20;14(641):eabn6150.

COVID Trial Placebo Arms: Change in Viral RNA from Baseline

- Rapid decline in viral RNA from nasal swabs in placebo arm of SPRINT was more robust than in placebo arms from other trials of antivirals published to date, indicating this highly immune population rapidly cleared virus from the nose



1 CROI Follow-up Meeting, Feb 2023; 2 ISIRV Oct 2022
3 Atea Corporate Presentation Oc 2021; Moonsong slide 11
4 Hammond et al. NEJM, Feb 16, 2022; DOI: 10.1056/NEJMoa2118542
5 Pfizer Paxlovid Advisory Committee Briefing Materials, 23-Feb-2023
6 Pardes Press Release, Apr 3, 2023

SPRINT: Virology Summary

- High degree of nucleocapsid positivity and rapid decline in viral RNA from nasal swabs in placebo arm indicate a highly immune population that quickly cleared virus from the nose
- No difference between treatment arms and placebo for viral RNA decline (ITTc)
- Additional analyses demonstrate a virologic effect in multiple subsets of patients, with a placebo-adjusted viral load decline at Day 5 in the 400mg group of:
  - 0.4 log: baseline viral load greater than 5 log
  - 0.8 log: nucleocapsid negative (suggesting no recent natural infection)
  - 1 log: nucleocapsid negative and symptom onset within 3 days

EDP-235 Profile Suggests Potential for Best-in-Class Antiviral Treatment for SARS-CoV-2 Infection

Preclinical Properties		EDP-235[1]	Nirmatrelvir[2]	Pomotrelvir[3]	Ensitrelvir[4]	Molnupiravir[5]	Bemnifosbuvir[6]
Mechanism		**Protease**	Protease	Protease	Protease	Polymerase	Polymerase
Potency (nM)*	Enzyme IC_{50}	**5.8**	19	24	13	n/a	n/a
	Vero Cell EC_{50}	**5.1**	75	345	69 (Delta)	1410**	n/a
	Vero Cell EC_{90}	**11**	155	598	n/a	n/a	470*** (In pHAEC)
Oral Bioavailability[7]		**95%**	34 – 50%	n/a	97%	36 – 56%	n/a
Lung Penetration[8]		**4.1**	0.8[9]	~1	0.7[9]	1.8	0.8
Projected Efficacious Dose		**200 or 400mg QD**	300 mg/100 mg ritonavir BID	700mg BID	375mg (D1)/125 mg (D2-5) QD	800mg Q12h	550mg BID

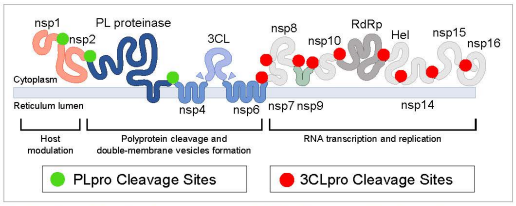
1. Jiang et al., ISIRV Poster #120, Oct 19, 2021
2. Owen et al., Science November 2021; Owen et al. ACS Spring 2021 meeting; EUA fact sheet for healthcare providers
3. Pardes CHI New Antiviral Conference presentation Oct 19, 2022. Pardes 2022 10K, March 2023
4. Tachibana, et al., ISIRV oral presentation, Oct 20, 2021; Unoh, et al., bioRxiv 2022; Sasaki, et al., bioRxiv 2022; Yotsuyanagi, et al., ECCMID oral presentation, Apr 24, 2022
5. Grobler et al., ID Week 2021, Poster 543; Painter et al., Antiviral Research Nov 2019
6. Good et al., AAC, 2021; Atea 2Q2021 earnings presentation; Atea 1Q2022 earnings presentation; Atea 2Q2022 earnings presentation
7. Oral bioavailability in rats for EDP-235, nirmatrelvir, and ensitrelvir; in mice for molnupiravir
8. AUC lung to plasma ratio in rats (EDP-235, nirmatrelvir, ensitrelvir), mice (molnupiravir); C12 lung to plasma ratio in humans for AT-527
9. Data for nirmatrelvir and ensitrelvir generated by Enanta

*All potency values versus ancestral (A) lineage unless indicated
**Data from N-hydroxycytidine (NHC): molnupiravir is prodrug of NHC
***Data from AT-511 (AT-527 is the hemi-sulfate salt of AT-511)
pHAEC: primary human airway epithelial cells
n/a: not available

New Program Developing SARS-CoV-2 PLpro Inhibitors

- Enanta is developing novel, oral, direct-acting antivirals specifically designed to target the SARS-CoV-2 PLpro
  - SARS-CoV-2 protease required for viral replication (distinct from 3CLpro)
  - Acts to suppress the innate immune response
- Inhibition of PLpro blocks viral replication and has the potential to alleviate the suppression of the immune response to SARS-CoV-2 infection
- Mechanism distinct from 3CLpro inhibition (EDP-235) and therefore has the potential to be used alone or in combination

SAR-CoV-2 Polyprotein 1ab (pp1ab)



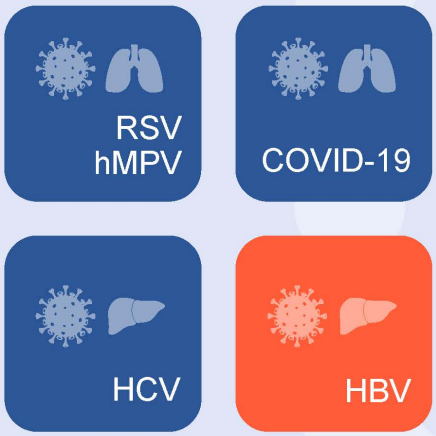
Modified from https://viralzone.expasy.org/764?outline=complete_by_protein

Prototype Inhibitor: PLpro-001

Biochemical Assay	Live Virus Assay Omicron BA5.1
IC_{50} = 3.7 ± 0.1 nM	EC_{50} = 76 ± 28 nM

Biochemical assay: measures cleavage using ancestral SARS-CoV-2 lineage

Live virus assay: Vero E6-TMPRSS2 cells; endpoint - viral load reduction by $TCID_{50}$ assay



Our Therapeutic Focus

Leveraging our core strength in Hepatitis C to become a leader in oral treatments for **viral** infections

Several therapeutic areas with goal of building multiple approaches in each

Hepatitis B Virus (HBV)

Potentially life-threatening liver infection

- In 2019, hepatitis B resulted in an estimated 820,000 deaths, mostly from cirrhosis and hepatocellular carcinoma (primary liver cancer)[1]
- Current treatments rarely give true cures
  - **Interferon** is ~10% effective, but with side effects[2]
  - **Reverse-transcriptase inhibitors** effective at reducing viral load, but low cure rates (1% or lower) and treatment for life to improve cirrhosis or HCC outcomes[3]

HBV at a Glance	
U.S.	850K – 2M people[4]
Europe and European Economic Area	~4.7M people[5]
Worldwide	~290M people[6]

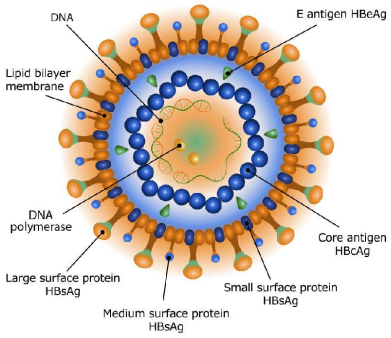
Sources: 1. https://www.who.int/news-room/fact-sheets/detail/hepatitis-b 2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5401664/
3. https://pubmed.ncbi.nlm.nih.gov/30342034/ 4.https://jamanetwork.com/journals/jama/fullarticle/2738558
5.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5356432/ 6.https://pubmed.ncbi.nlm.nih.gov/29599078/

EDP-514: HBV Core Inhibitor

- A novel core inhibitor that displays potent anti-HBV activity at multiple points in the HBV lifecycle
- Granted Fast Track Designation by the FDA

In vitro	• Potent anti-HBV activity in HBV expressing stable cell lines • Capable of preventing the establishment of cccDNA • Pan-genotypic activity
In vivo	• Favorable tolerability and pharmacokinetic profile • Over 4-log reduction in HBV viral titers with 12 weeks of treatment in a chimeric liver mouse model
Phase 1a	• Healthy volunteer SAD/MAD • Generally safe and well tolerated for up to 14 days – All reported treatment emergent adverse events of mild severity • Pharmacokinetics supportive of once-daily dosing with no food effect

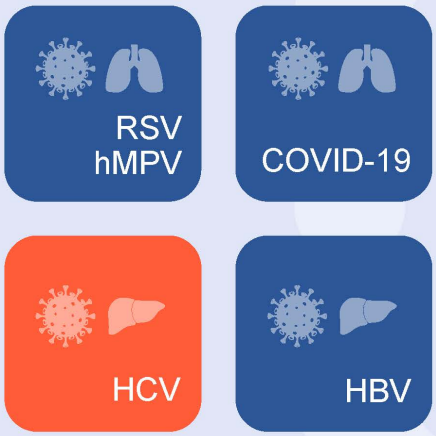
HBV



EDP-514: Two Positive Phase 1b Studies in HBV Patients

- Randomized, double-blind studies in NUC-suppressed (n=24) or viremic (n=24) HBV patients
  - Patients dosed for 28 days with 200mg, 400mg or 800mg of EDP-514 or placebo
- EDP-514 was safe and well-tolerated in both patient populations at all doses up to 28 days
- Pharmacokinetics support once-daily dosing, with trough concentrations of >20-fold the $paEC_{50}$
- Significant reductions in HBV DNA and RNA across patient populations
  - NUC-suppressed patients: mean reduction in HBV RNA of up to ~1 log compared with 0.2 log in placebo
    - Maximum reduction of 2.3 log (HBeAg-) and 2.8 log (HBeAg+) was observed in patients receiving EDP-514 as compared with 1.2 log in placebo
  - Viremic patients:
    - Mean reductions in HBV DNA of ~3-3.5 logs across dose groups vs 0.2 log in placebo
    - Mean reductions in HBV RNA of ~2-3 logs across dose groups vs 0.02 log in placebo

$paEC_{50}$: protein-adjusted EC_{50}



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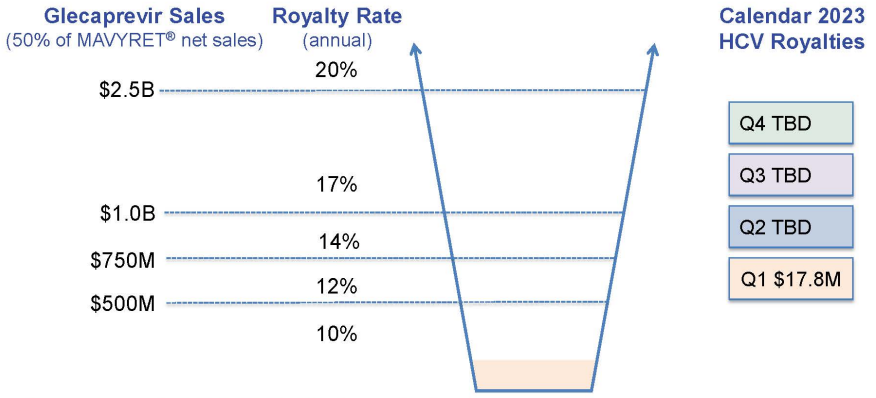
Glecaprevir: Our Licensed Protease Inhibitor for Hepatitis C Virus

Product	Regimen	Enanta Asset	Economics*
MAVYRET glecaprevir/pibrentasvir	2-DAA (ABBV)	glecaprevir (PI)	Double-digit royalty on 50% of net sales



*Enanta also receives royalties on paritaprevir sales (30% of VIEKIRA 3DAA sales, same tiers)

Financial Highlights

($ In millions except per share amounts)	Fiscal Year Ended Sept. 30, 2022	Fiscal Quarter Ended Mar. 31, 2023
Total Revenues	$86.2	$17.8
R&D Expenses	$164.5	$43.5
G&A Expenses	$45.5	$13.8
Net Loss	$(121.8)	$(37.7)
Net Loss per Diluted Common Share	$(5.91)	$(1.79)
Balance Sheet		
Cash, Cash Equivalents and Marketable Securities	$278.5	$225.1*

*Does not reflect an additional $200M received in April 2023 from sale of 54.5% of future MAVYRET®/MAVIRET® royalties

Key Catalysts 2023

Virology Respiratory

SARS-CoV-2

- ✓ EDP-235 (3CLpro): Report Phase 2 (SPRINT) data in May 2023
- ☐ EDP-235 (3CLpro): Pursue partnership for Phase 3 study
- ☐ PLpro: Optimize lead candidates

Respiratory Syncytial Virus

- ☐ EDP-938: Continue Phase 2 recruitment in high-risk patient populations
- ☐ EDP-323: Report Phase 1 data in June 2023

Human Metapneumovirus & Respiratory Syncytial Virus

- ☐ Select dual-acting clinical candidate in 4Q 2023

Virology Liver

Hepatitis B Virus

- ☐ Select third mechanism for HBV combination regimen with EDP-514

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