VAXART

INVESTOR PRESENTATION

March 2023

FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this press release regarding Vaxart's strategy, prospects, plans and objectives, results from preclinical and clinical trials, commercialization agreements and licenses, beliefs and expectations of management are forward-looking statements. These forward-looking statements may be accompanied by such words as "should," "believe," "could," "potential," "will," "expected," "plan" and other words and terms of similar meaning. Examples of such statements include, but are not limited to, statements relating to Vaxart's ability to develop (including enrolling a sufficient number of subjects and manufacturing sufficient quantities of its product candidates) and commercialize its COVID-19 vaccine candidate and preclinical or clinical results and trial data (including plans with respect to the COVID-19 vaccine product candidates); expectations regarding the timing and nature of future announcements including, those related to clinical trials and results of preclinical studies; Vaxart's expectations with respect to the important advantages it believes its oral vaccine platform can offer over injectable alternatives, particularly for coronaviruses; the potential applicability of results seen in our preclinical trials to those that may be seen in human studies or clinical trials; the expected role of mucosal immunity in blocking transmission of COVID-19; and Vaxart's expectations with respect to the effectiveness of its products or product candidates, including Vaxart's potential role in mitigating the impact of COVID-19 globally. Vaxart may not actually achieve the plans, carry out the intentions or meet the expectations or projections disclosed in the forward-looking statements and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that Vaxart makes, including uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or completion dates for clinical trials or preclinical studies, regulatory submission dates, regulatory approval dates and/or launch dates, as well as the possibility of unfavorable new clinical data and further analyses of existing clinical data; the risk that clinical trial and preclinical study data are subject to differing interpretations and assessments by regulatory authorities; whether regulatory authorities will be satisfied with the design of and results from the clinical studies; decisions by regulatory authorities impacting labeling, manufacturing processes, and safety that could affect the availability or commercial potential of any product candidate, including the possibility that Vaxart's product candidates may not be approved by the FDA or non-U.S. regulatory authorities; that, even if approved by the FDA or non-U.S. regulatory authorities, Vaxart's product candidates may not achieve broad market acceptance; that a Vaxart collaborator may not attain development and commercial milestones; that Vaxart or its partners may experience manufacturing issues and delays due to events within, or outside of, Vaxart's or its partners' control, including the recent outbreak of COVID-19; difficulties in production, particularly in scaling up initial production, including difficulties with production costs and yields, quality control, including stability of the product candidate and quality assurance testing, shortages of qualified personnel or key raw materials, and compliance with strictly enforced federal, state, and foreign regulations; that Vaxart may not be able to obtain, maintain and enforce necessary patent and other intellectual property protection; that Vaxart's capital resources may be inadequate; Vaxart's ability to obtain sufficient capital to fund its operations on terms acceptable to Vaxart, if at all; the impact of government healthcare proposals and policies; competitive factors; and other risks described in the "Risk Factors" sections of Vaxart's Quarterly and Annual Reports filed with the SEC. Vaxart does not assume any obligation to update any forward-looking statements, except as required by law.

VAXART'S MISSION

Improve global public health by developing a transformative oral tablet vaccine platform

The potential impact is revolutionary, scalable, and could lead to better global public health

Vaxart's current main focus is on its norovirus vaccine candidate, while also advancing other programs that can exploit its platform's advantages

ORAL VACCINE PLATFORM WITH TRANSFORMATIONAL POTENTIAL

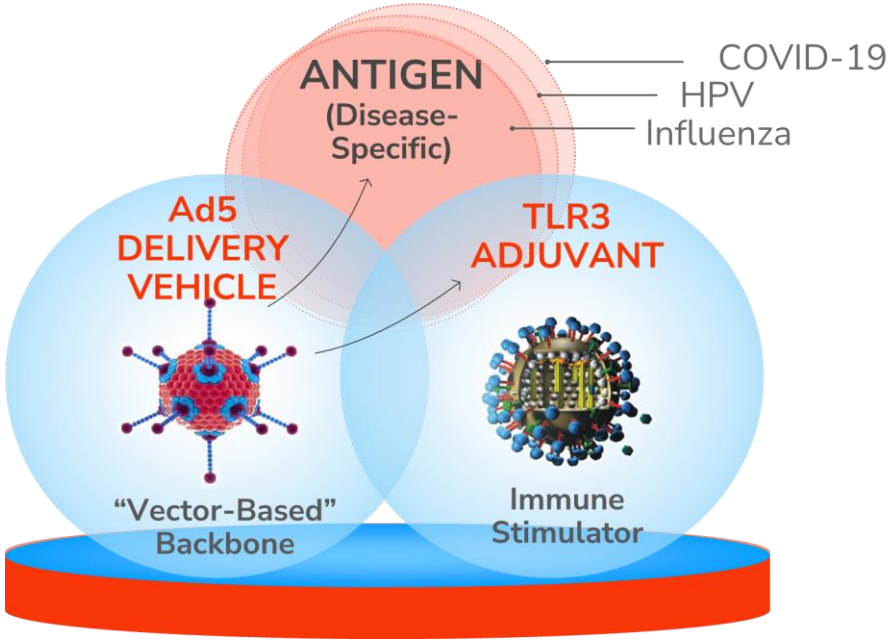
ORALLY DELIVERED TABLET WITH SEVERAL POTENTIAL ADVANTAGES OVER INJECTABLES

- The only oral vaccine shown to be as protective as an injectable against a respiratory pandemic virus in a human clinical trial[1]
- By triggering mucosal and systemic immunity Vaxart's platform could offer several advantages over injectables:
  - Cross-reactivity & broader immune response
  - Reduction in transmission
  - Longer duration of protection
  - Better tolerability
- All of this delivered in an oral tablet:
  - Fast, easy, painless administration

1. Liebowitz, et al, *Lancet ID*, 2020

PLATFORM EXPRESSES ANTIGEN AND TLR3 ADJUVANT DELIVERED IN AD5 VECTOR

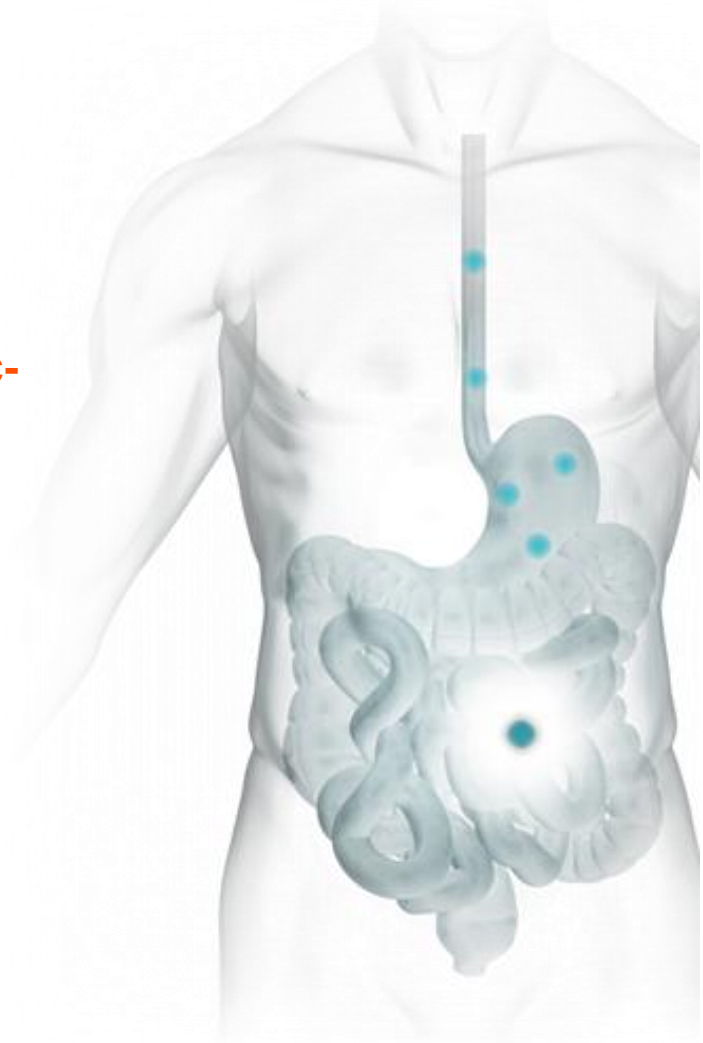
Proprietary Oral Vaccine Platform: VAAST™



Creates a very broad immune response not just serum antibodies

*VAAST™: Vector-Adjuvant-Antigen Standardized Technology

Room-temperature (25ºC) stable enteric-coated tablets



AS PROTECTIVE AS LEADING INJECTABLE AGAINST A RESPIRATORY VIRUS

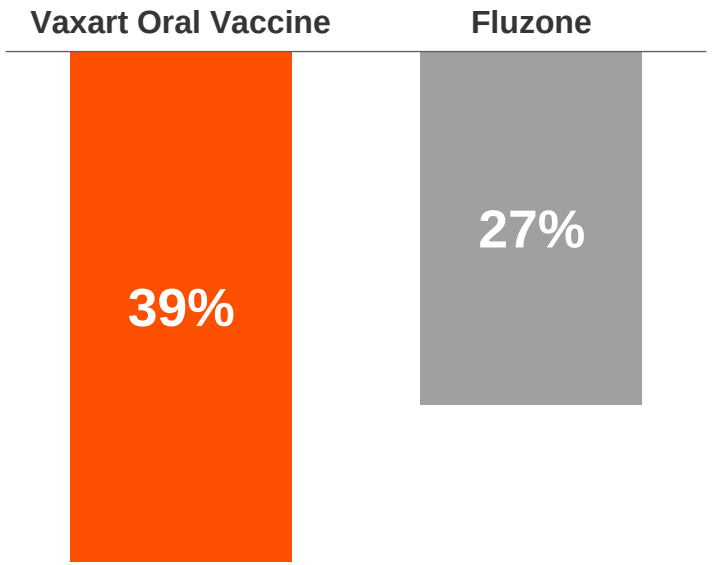
CLINICAL TRIAL FUNDED BY U.S. GOVERNMENT'S BARDA* DEMONSTRATED SIGNIFICANT PROTECTION AGAINST ILLNESS AND INFECTION

Phase II clinical trial demonstrated:

- Protection with Vaxart's oral tablet flu vaccine against illness and infection similar to that of Fluzone, but numerically better[1]
- 80% chance of improved protection against infection compared to the market-leading Sanofi injectable flu vaccine in a BARDA* analysis

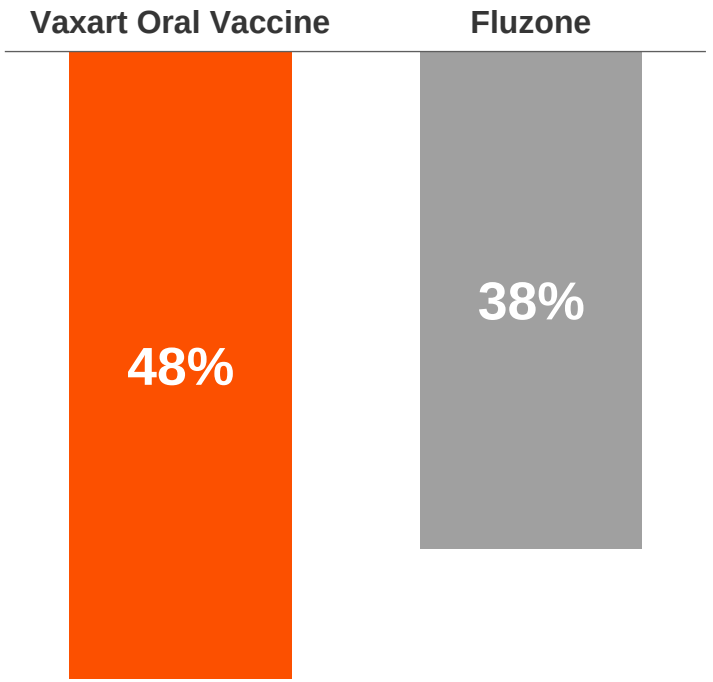
Protection Against Illness

Reduction in Illness Rate vs. Placebo



Protection Against Infection

Reduction in Infection Rate vs. Placebo



* BARDA (The Biomedical Advanced Research and Development Authority) is a U.S. Department of Health and Human Services office responsible for the procurement and development of medical countermeasures

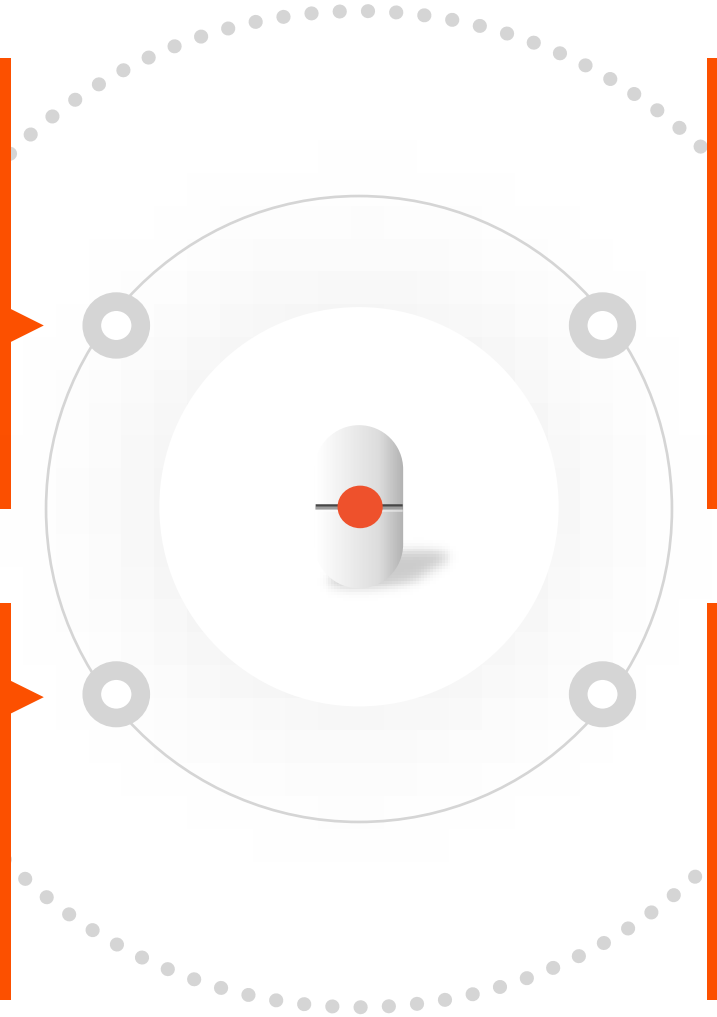
DATA SUGGESTS THAT BY TRIGGERING MUCOSAL IMMUNITY, VAXART'S ORAL VACCINES MAY OFFER SEVERAL ADVANTAGES OVER INJECTABLES

Cross-reactivity & Broad Immune Responses

- Broad immune responses in preclinical & clinical COVID and Influenza studies
- Cross-reactivity in COVID and norovirus clinical trials

Reduction in Transmission

- Reduction in viral transmission in preclinical COVID study
- Reduction in shedding (infection) in influenza clinical trial



Long Duration of Protection and Immune Responses

- Long-lasting protection demonstrated in Influenza human vaccine study
- Long-lasting antibody responses in clinical Norovirus and COVID trials

Benign Tolerability

- Benign tolerability profile shown across 15 clinical trials against 7 different viruses, evaluating 500+ subjects

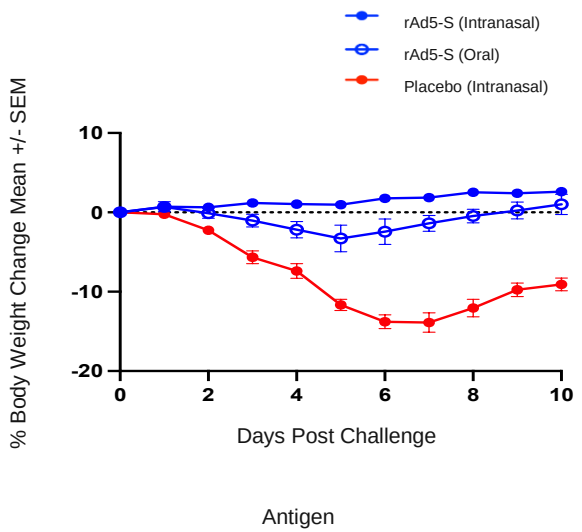
CROSS-REACTIVITY: BROAD BREADTH OF PROTECTION

CLINICAL AND PRECLINICAL DATA DEMONSTRATE BROAD CROSS-REACTIVITY IN TWO COVID-19 CLINICAL TRIALS

Cross-protection by Wuhan vaccine against Delta variant

COVID Preclinical

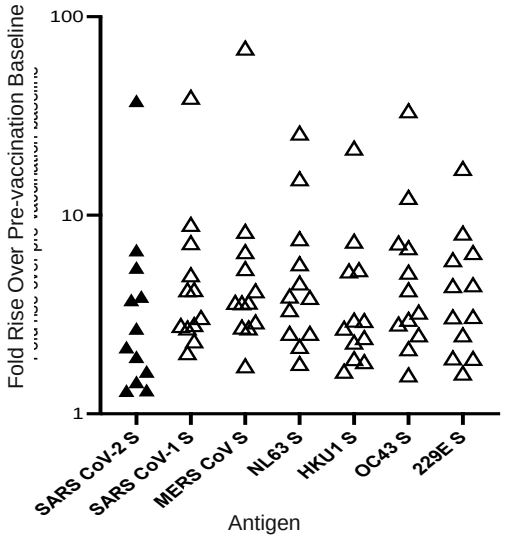
Challenge: Delta Virus



Mucosal IgA responses *highly cross reactive against all tested coronaviruses*

COVID Ph I

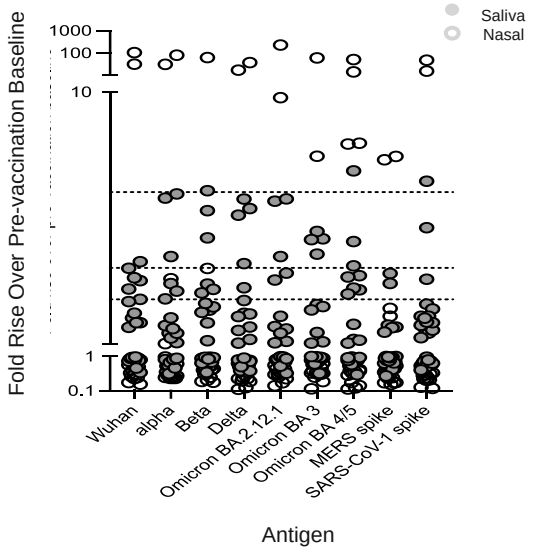
Cross Reactivity



Mucosal IgA responses are cross-reactive to *variants AND other coronaviruses*

COVID Ph II

Cross Reactivity



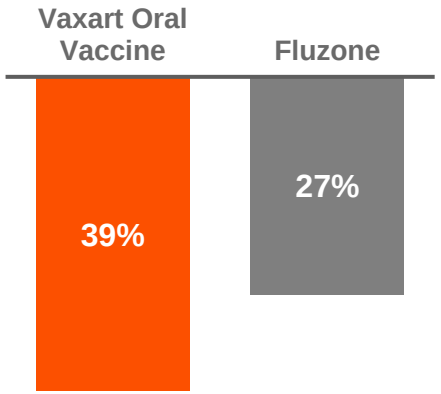
LONG DURATION OF IMMUNE RESPONSES

DURABLE RESPONSES ACROSS MULTIPLE PROGRAMS AND CLINICAL TRIALS

Robust protection at least 90–120 days post vaccination

Influenza Ph II

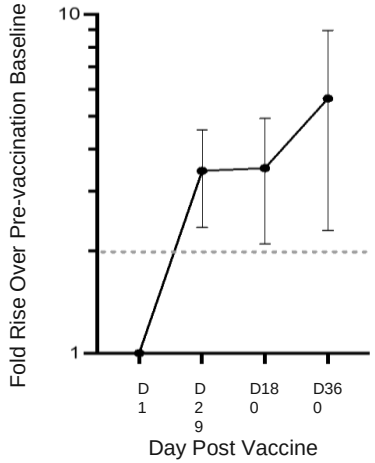
Reduction in illness rate vs. placebo



Sustained antibody responses to 360 days

COVID-19 Ph I

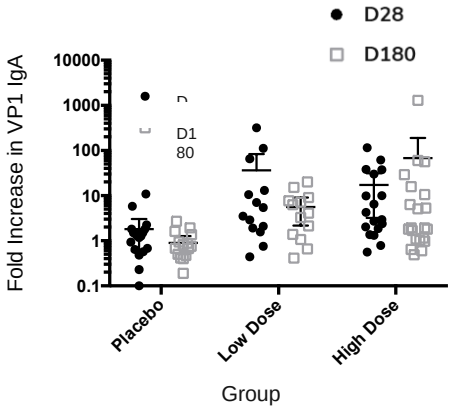
Antibody responses



Durable fecal antibody responses to 180 days

Norovirus Ph I

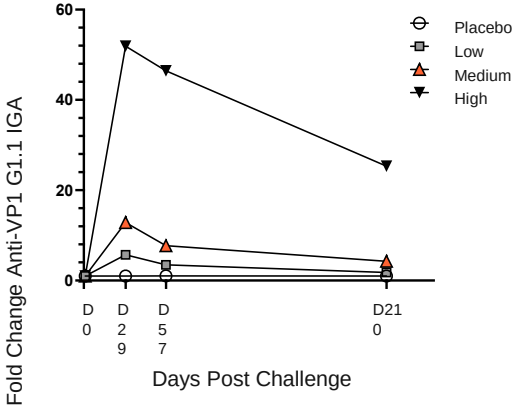
Fecal IgA Response



Sustained IgA responses in *200 days post vaccination*

Norovirus Ph I (Elderly)

Nasal IgA Response Fold Change



REDUCTION IN TRANSMISSION AND SHEDDING

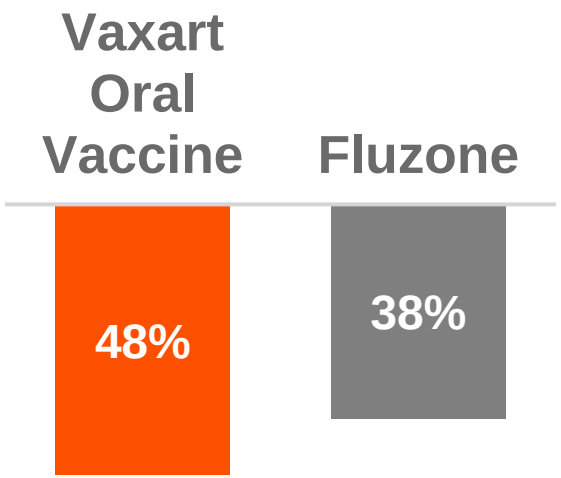
Reduction in viral shedding (infection rate) compared to Sanofi's injectable Fluzone

Reduction in viral shedding in vaccinated hamsters

Decreased transmission by mucosally vaccinated animals

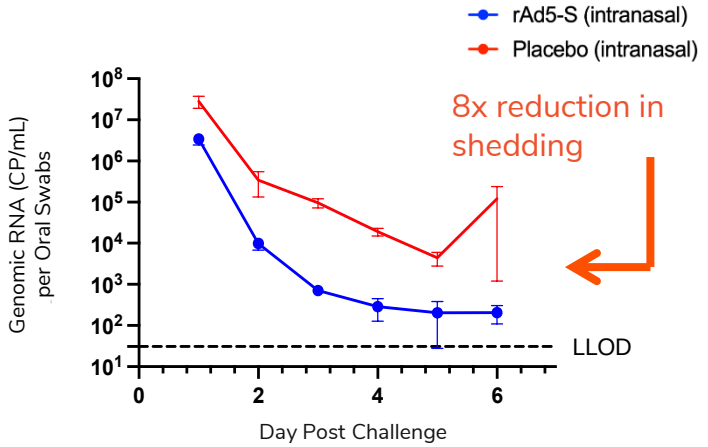
Influenza ph II

Reduction in infection rate
vs. placebo

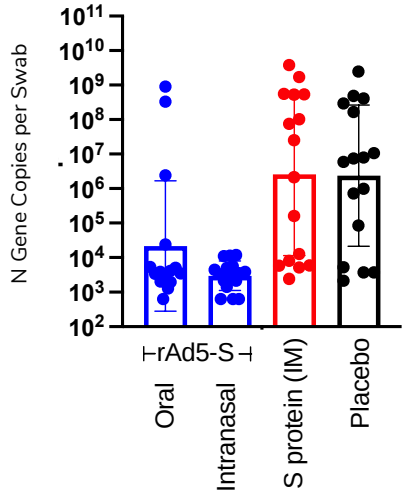


COVID Preclinical Hamster Cross-Challenge Study

Reduction in shedding in
Omicron challenge



Reduction in Transmission
to naive animals

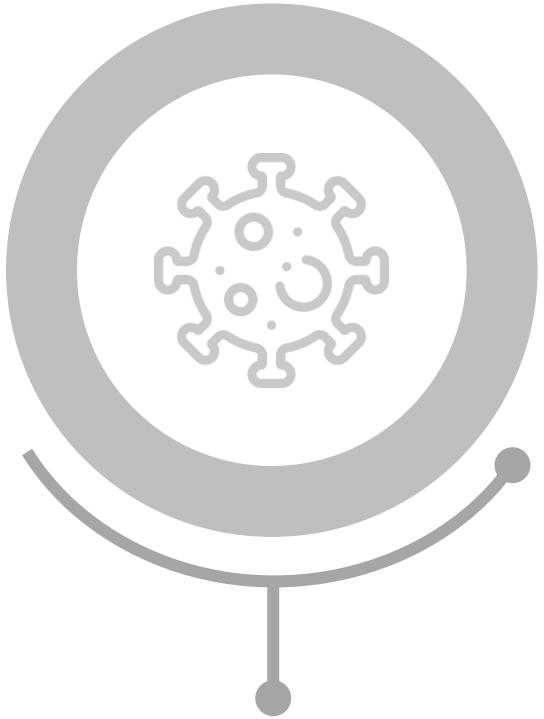


BENIGN SAFETY AND TOLERABILITY PROFILE

ACROSS HUNDREDS OF SUBJECTS IN 15 CLINICAL TRIALS AGAINST 7 VIRUSES

15 Clinical Trials

500+ Subjects



7 Viruses

No vaccine-related serious adverse events

ALL THIS, IN AN ORAL PILL - THE MOST ATTRACTIVE DELIVERY FORMAT

PAINLESS, FAST AND EASY TO DISTRIBUTE, ROOM-TEMPERATURE STABLE

An oral tablet vaccine could vaccinate more people faster

INJECTABLE VACCINE

Make appointment | Travel to vaccination site | Wait in line | Get vaccinated | Travel home

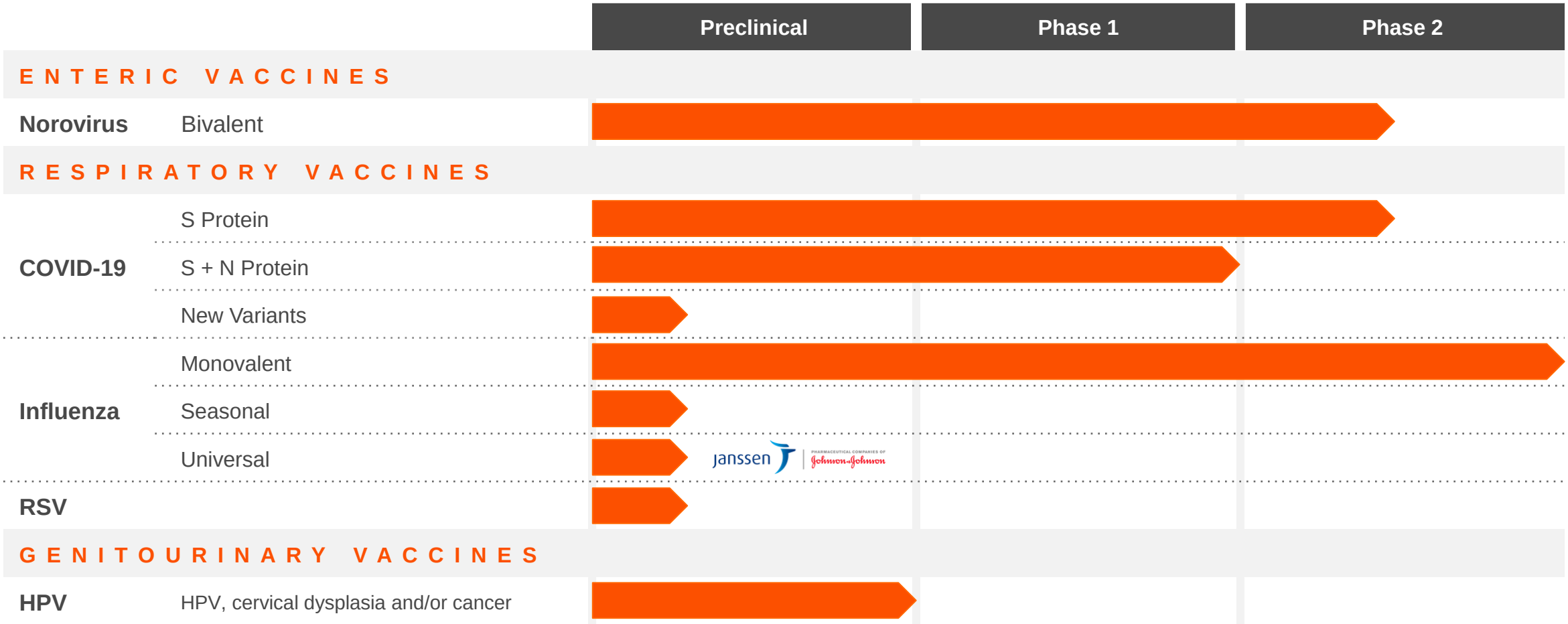
VS

ORAL VACCINE

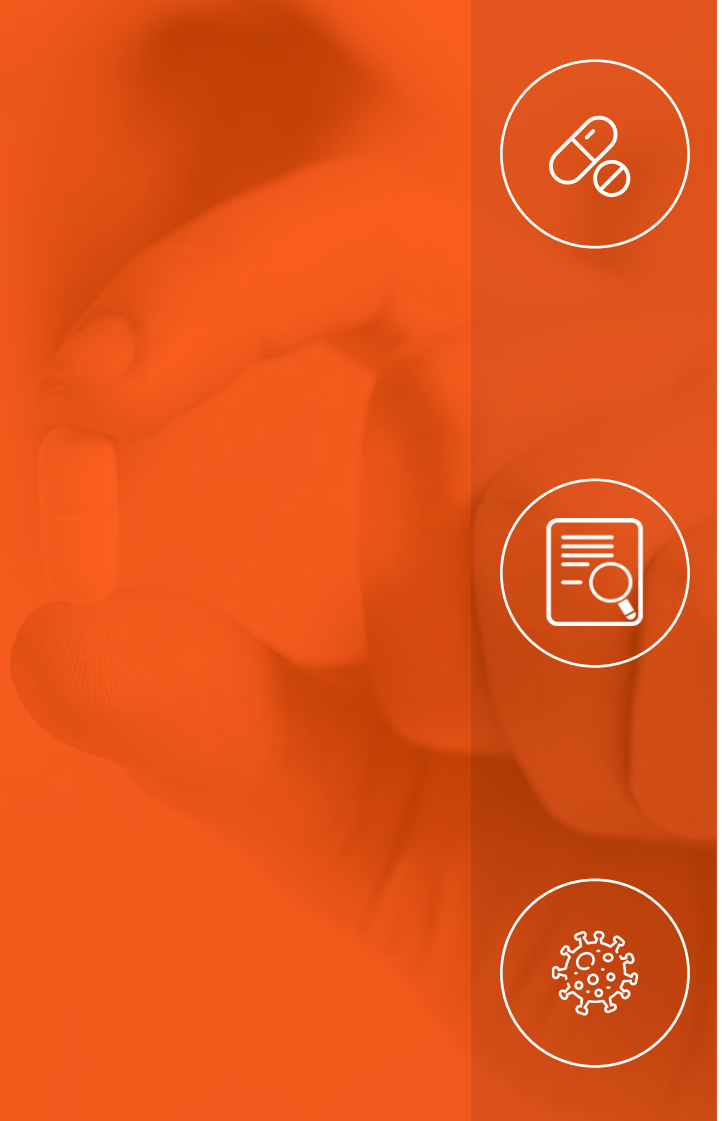
Order pill | Pill is shipped | Take pill

Clinical Pipeline: Completed 15 Clinical Trials Against 7 Different Viruses, Evaluating 500+ Subjects

Trials Conducted to Date or In Progress:



EXECUTIVE SUMMARY



Transformative Oral Tablet Vaccine Platform

- The only oral vaccine shown to be as protective as an injectable against a respiratory pandemic virus in humans
- Triggers systemic AND mucosal immunity
- Room-temperature stable
- Can deliver any antigen of interest (e.g., HPV, Influenza, COVID-19, etc.)
- Completed 15 clinical trials against 7 different viruses, vaccinating 500+ subjects

Data suggests it may offer four key advantages over injectables

- Cross-reactivity against variants
- Reduction in transmission
- Durable immune responses
- Benign tolerability

Clinical Pipeline Overview

- Influenza vaccine candidate protected as well as market-leading Fluzone with a favorable safety and tolerability profile in a clinical challenge study
- Norovirus vaccine candidate triggered immune responses similar to natural infection, sustained after 200+ days
- COVID-19 vaccine candidates demonstrated serum and mucosal antibody responses, potent T-cell responses, cross-reactivity to variants, and reduction in transmission

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VAXART PROGRAMS

1. **Influenza**
2. **Norovirus**
3. **COVID-19**
4. **RSV**
5. **HPV**

Highlights:

- At least as protective as an injectable vaccine in a phase 2 challenge trial
- Very different mechanism of action: mucosal rather than serum antibodies
- Reduces shedding
- Favorable safety profile

HUMAN INFLUENZA CHALLENGE STUDY DESIGN: CHALLENGE AFTER 90 DAYS

- A single dose administration of one of the following:
  - Arm 1: VXA-A1.1 oral vaccine + placebo IM injection (n=60+extra)
  - Arm 2: QIV (Fluzone) injection + oral placebo tablet (n=60+extra)
  - Arm 3: Placebo IM injection + oral placebo tablet (n=30+extra)
- Subjects with baseline HAI titers <10
- Challenge after day 90 (up to 120 days)
  - A wild-type influenza A/Ca/2009/pH1N1 strain was administered to subjects in all treatment groups
- Primary endpoint
  - Number and % of subjects protected against infection and illness following influenza (A/CA/2009/pH1N1) challenge. VXA-A1.1 compared to placebo and QIV (Fluzone).

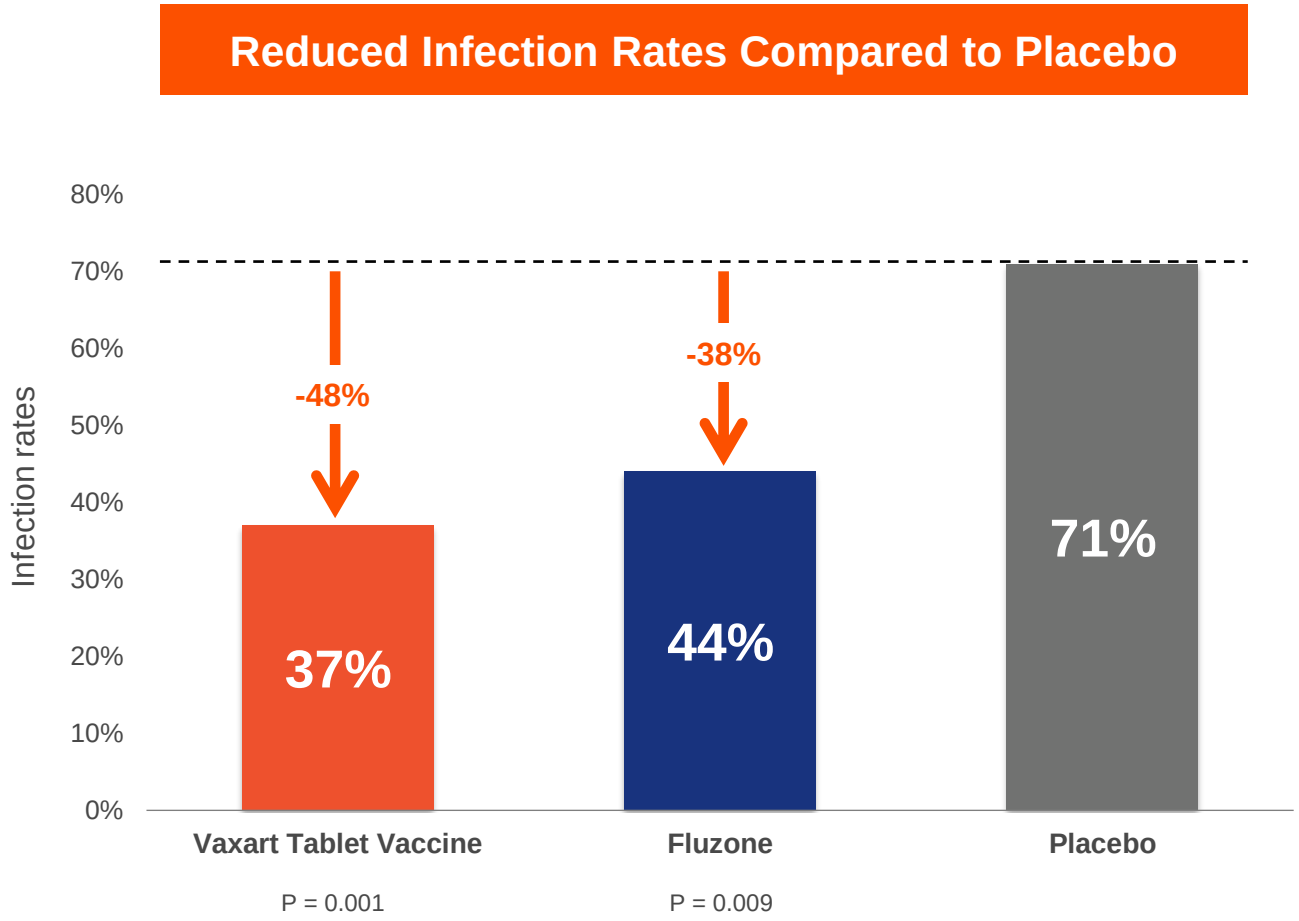
Source: Liebowitz, et al, *Lancet ID*, 2020

VAXART ORAL VACCINE REDUCED SHEDDING (INFECTION RATE)

TRENDING SUPERIOR TO FLUZONE

Oral vaccine candidate protected against influenza infection as well as market leading injected vaccine after influenza challenge. 80% chance of improved protection.

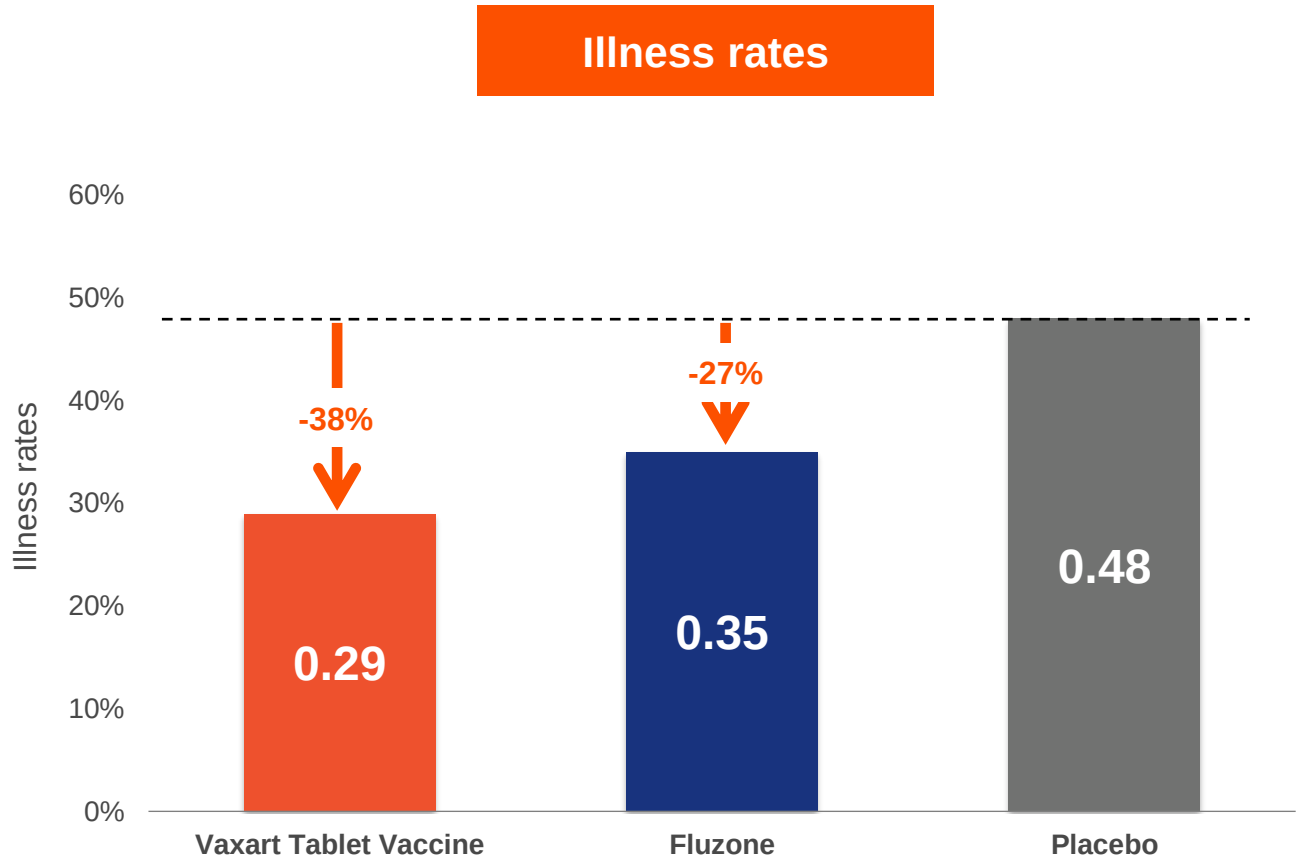
- Infection was measured by influenza virus shedding in subjects
- Shedding reductions would likely translate to lower transmission



Source: Liebowitz, et al, *Lancet ID*, 2020

VAXART ORAL VACCINE REDUCED ILLNESS

Oral vaccine candidate protected against influenza illness as well as market leading injected vaccine after influenza challenge



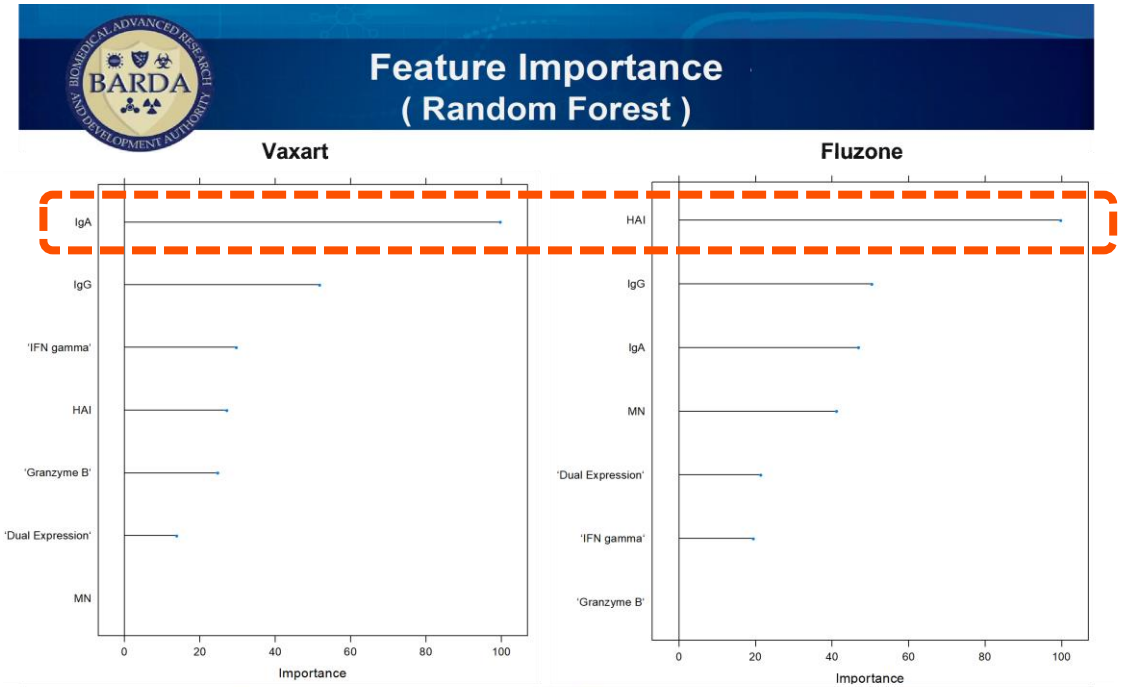
Source: Liebowitz, et al, *Lancet ID*, 2020

CORRELATE OF PROTECTION FOR ORAL VACCINE VERY DIFFERENT THAN FOR INJECTABLE

Vaxart's oral vaccine generated less than one tenth the serum neutralizing antibodies of the injectable, yet it protected as well

	Number of individuals tested	GMT (95% CI)		GMFR (95% CI)	Number of individuals who had a response (%; 95% CI)*
		Before vaccination	30 days after vaccination		
Neutralising antibody					
VXA-A1.1	69	10·2 (8·2–12·6)	58·6 (40·2–85·5)	5·8 (4·2–8·0)	39 (57%; 44·0–68·4)
IIV	70	11·8 (9·1–15·4)	1838 (1203–2810)	155·4 (108·7–222·2)	69 (99%; 92·3–100)
Placebo	35	12·0 (8·2–17·6)	12·4 (8·4–18·4)	1·06 (0·9–1·3)	1 (3%; 0·1–14·9)

BARDA's Random Forest Analysis: IgA ASC most important immunological feature for protection against shedding for the oral vaccine, while HAI most important feature for protection against shedding for the injectable vaccine



These results indicate a clear difference in the importance of the measured immune correlates between the two vaccines

Source: Liebowitz, et al, *Lancet ID*, 2020

VAXART PROGRAMS

1. **Influenza**
2. **Norovirus**
3. **COVID-19**
4. **RSV**
5. **HPV**

Highlights:

- $10bn+ annual U.S. market opportunity
- Significant unmet need
- Vaccine triggers immune response similar to natural infection
- Durability to 200+ days
- Reponses in elderly similar to younger adults
- No interference for bivalent vaccine

NOROVIRUS: $10 BILLION+ MARKET OPPORTUNITY PRESENTS SIGNIFICANT THREAT TO CHILDREN AND SENIORS

$10.6 billion
U.S. market opportunity

21,000,000
illnesses/year caused by norovirus in the U.S.

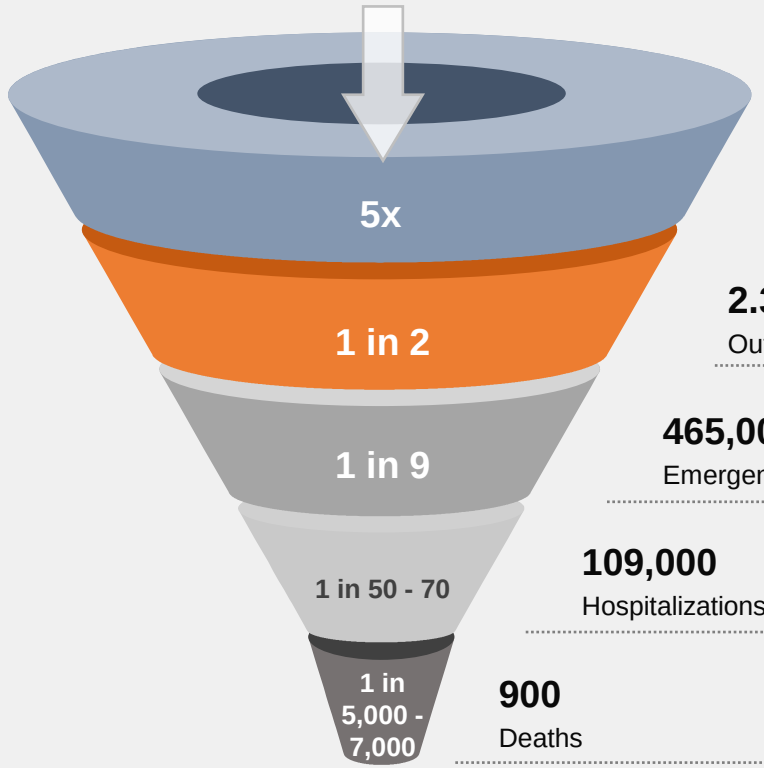
15%
of children under 5 catch norovirus annually

7.5%
of age 65+ get sick, most hospitalizations in this group

3,000,000
sets of parents need to take time from work (2.2 days) to care for these children

Economic burden of disease concentrated in these two groups

Estimated Lifetime Risk of Norovirus

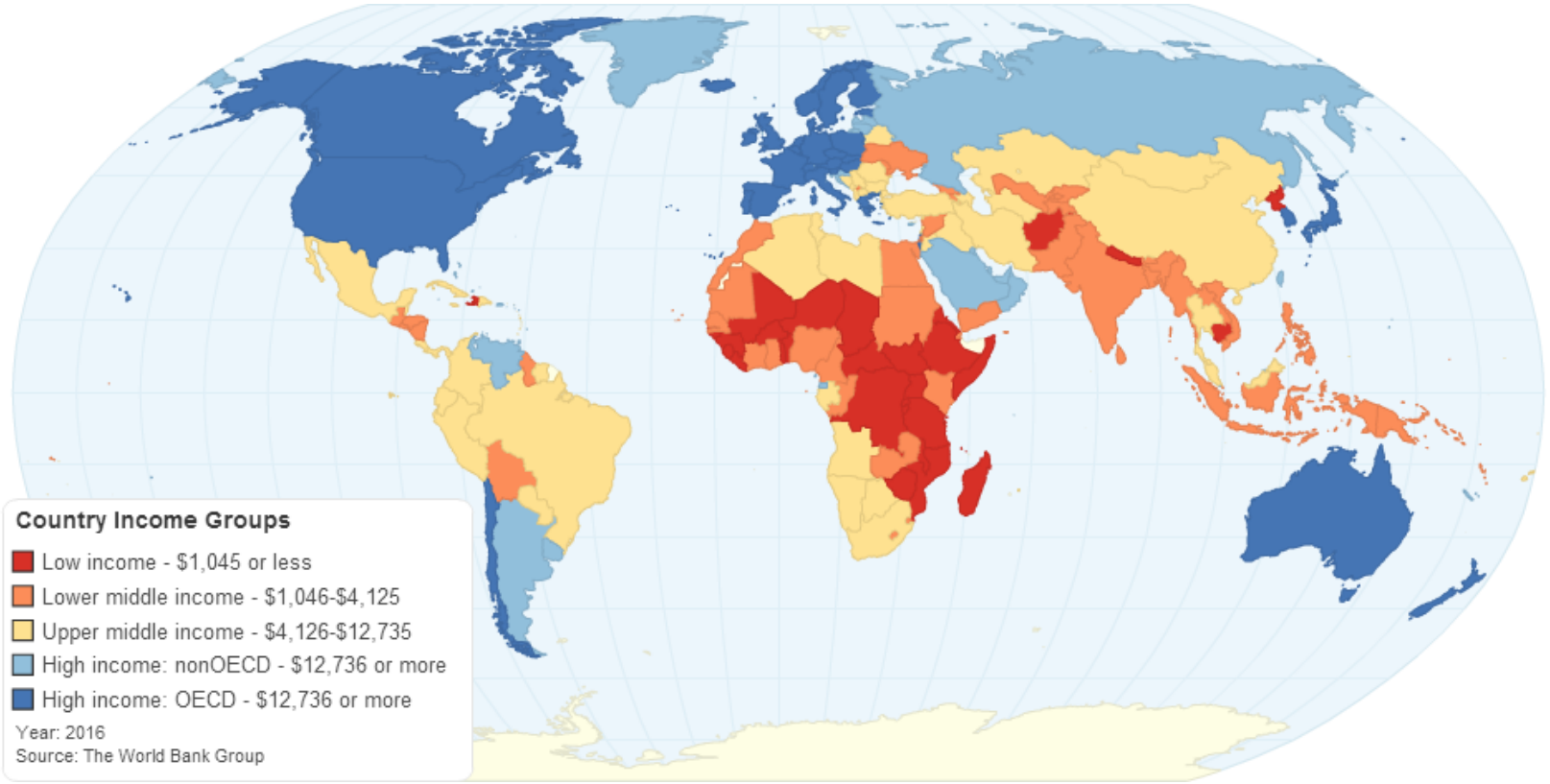


Source: CDC website (https://www.cdc.gov/norovirus/php/illness-outbreaks.html

Source: Incidence of Norovirus and Other Viral Pathogens That Cause Acute Gastroenteritis (AGE) among Kaiser Permanente Member Populations in the United States, 2012–2013, Grytdal et al, PLOS 1, 2016

GLOBAL NOROVIRUS IMPACT $60 BILLION[1] (2016)

Burden of Disease in High Income Countries: $34+ Billion



High Income Countries

- U.S., Europe, Japan, others
- 1.2 billion population

Target Population for Vaccination

- Older adults (65+)
- Very young (6m-4)

1. Global Economic Burden of Norovirus, Bartsch S et al., PLOS ONE 2016

VAXART NOROVIRUS VACCINE OFFERS IMPORTANT POTENTIAL ADVANTAGES: ORAL DELIVERY, MUCOSAL IMMUNITY

- **Development / competitive status**
  - GI and GII genotypes cause majority of NV-disease[1]
  - Vaxart bivalent vaccine targets prevalent strain of each genotype
  - Only Vaxart (oral tablet) and HilleVax (injectable) are in the clinic

- **Mucosal immunity may be important for protection against norovirus**
  - Correlates of protection from human challenge studies shown with rapid induction of mucosal IgA, serum IgA[2]
  - Vaxart vaccine designed to activate mucosal immunity

- **Oral tablet vaccine**
  - Convenient room temperature-stable tablets are easier to distribute and administer than injectable vaccines

1. CDC Norovirus Illness: Key Facts 2. Atmar, et al, CVI, 2015. Ramani, et al, PlosPathogens 2016

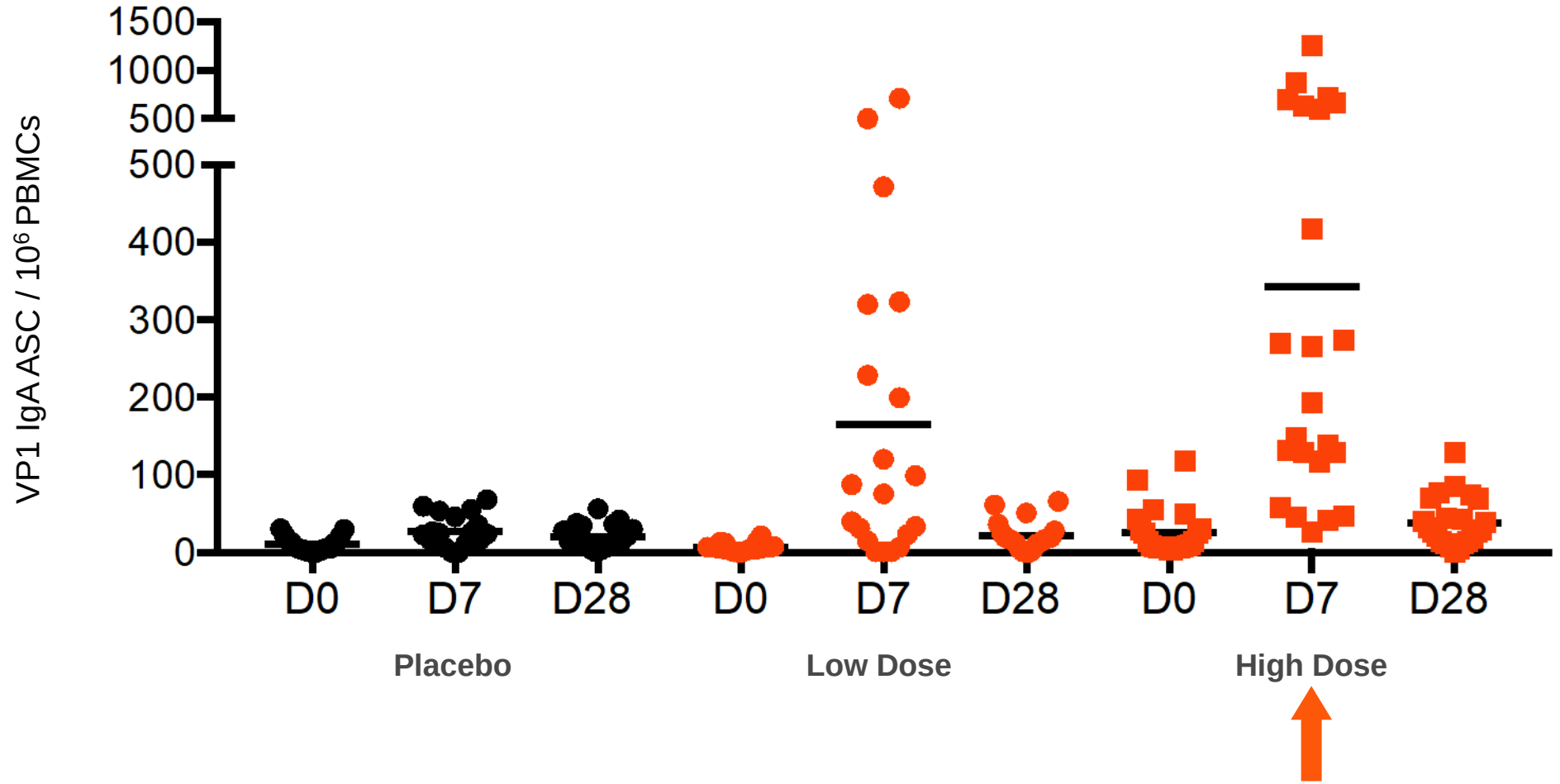
NOROVIRUS INFECTION – WHAT HAPPENS?

Analysis - Mucosal	Day 0	Day 28	GMFR
Fecal IgA (ng VP1/100 ug total)	45.1	1544	34.2

Analysis - Memory	Day 0	Day 7	GMFR	Day 14	GMFR
Memory IgA (%/5e5 PBMC)	0.2	0.8	7.2	2.5	15.7

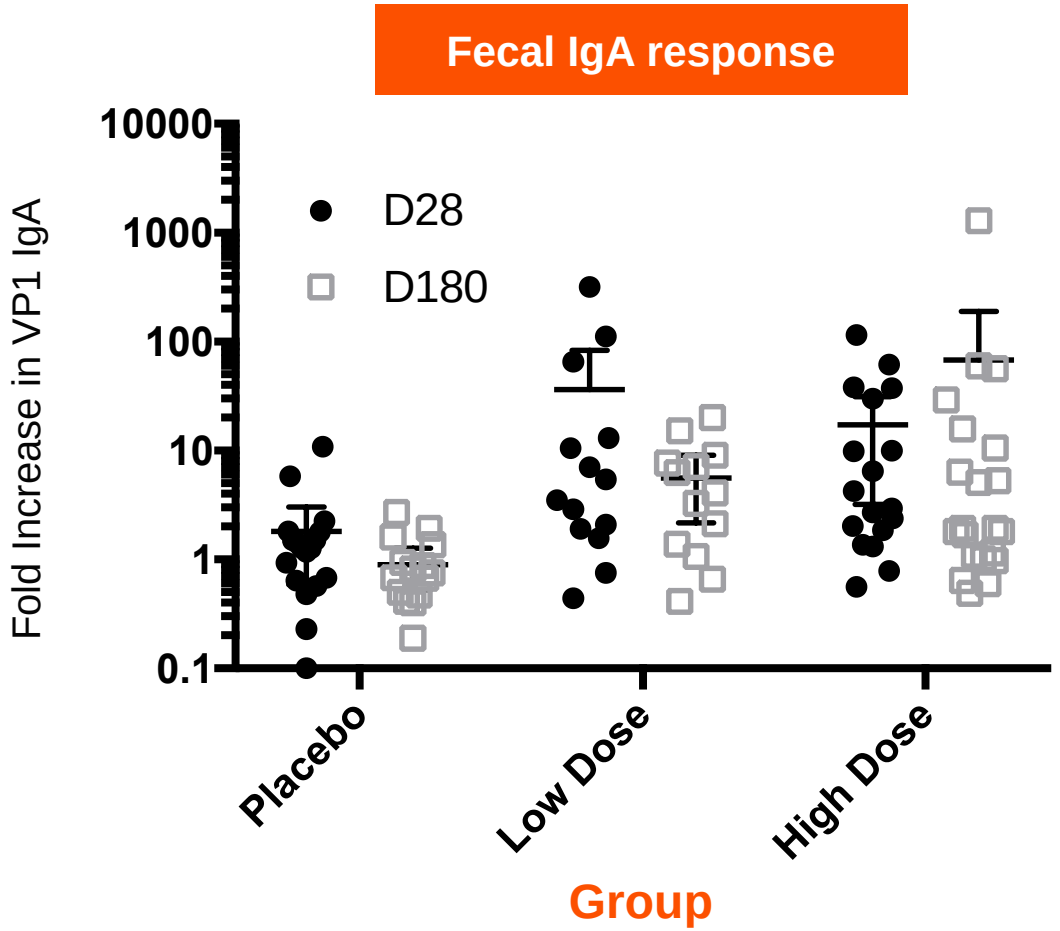
- Ramani, et al, “Mucosal and Cellular Immune Responses to Norwalk Virus” JID 212:397, 2015
- Screened subjects so they are susceptible to infection and then removed uninfected subjects from the analysis. (Data below is from 21 infected out of 36)

MEMORY IMMUNE RESPONSES ON THE SAME ORDER OF MAGNITUDE AS NATURAL INFECTION



Source: Kim, et al, JCI Insight, 2018

FECAL IGA RESPONSES DURABLE TO 180 DAYS



Fecal IgA measured by Marcela Pasetti, U Maryland, Baltimore

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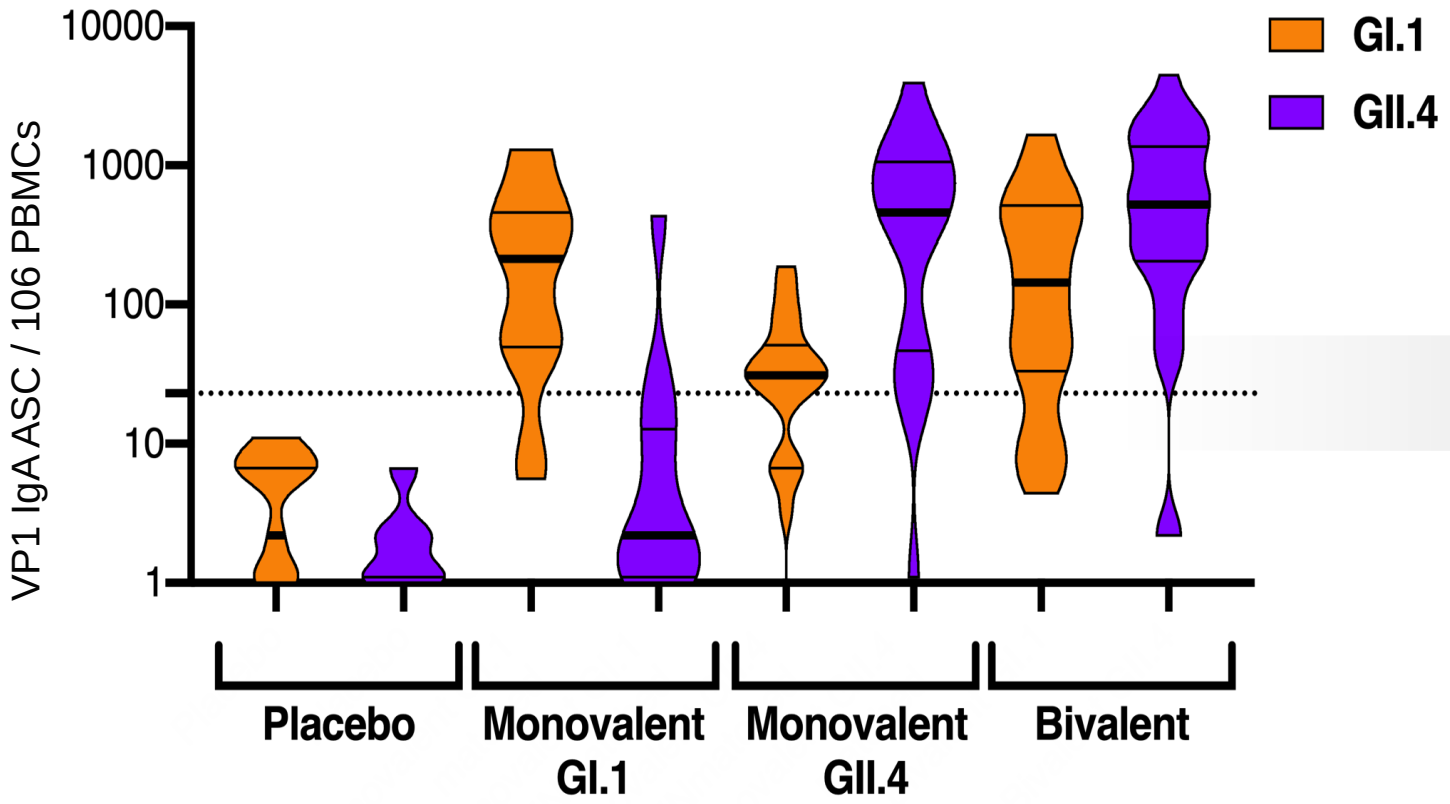
Source: Kim, et al, JCI Insight, 2018

BIVALENT RESULTS: NO INTERFERENCE, STRONG ANTIGEN-SPECIFIC B CELL INDUCTION

ASC IgA responses day 8[1]



Both monovalent GI.1 and GII.4 constructs elicit strong IgA mucosal response

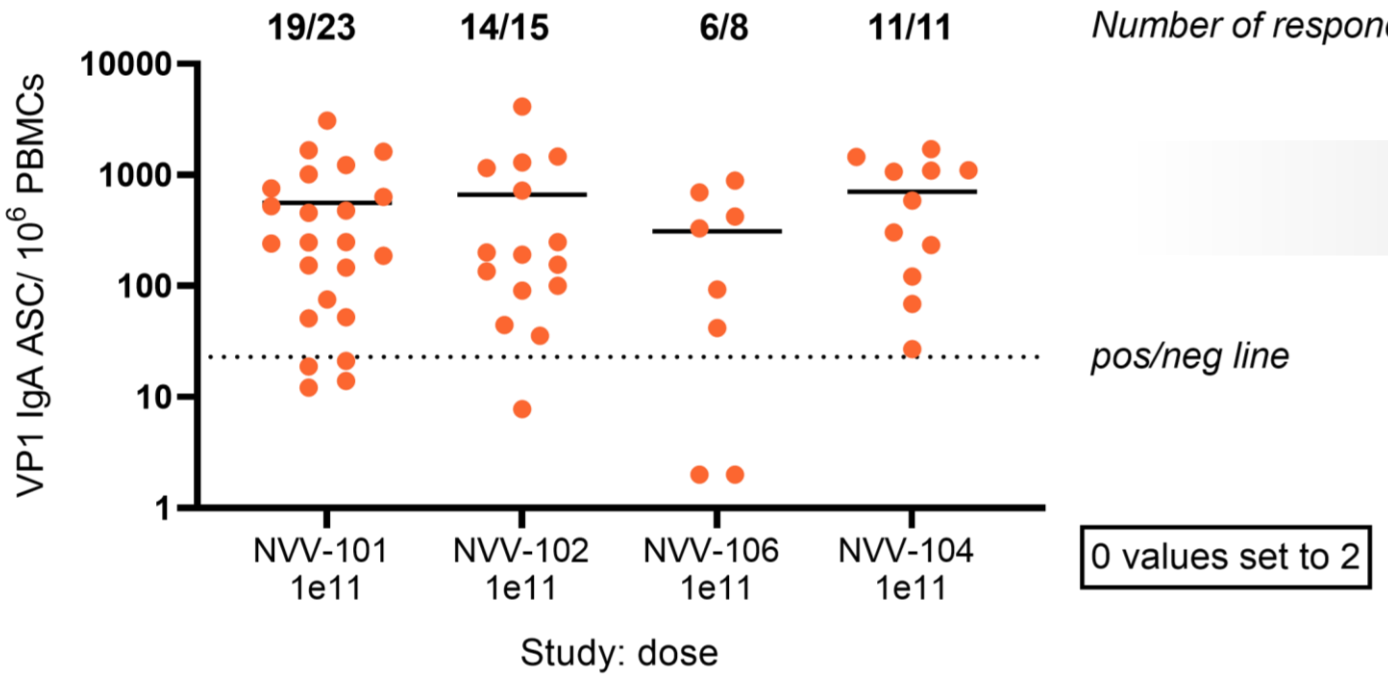
Bivalent response elicits strong antigen-specific B cell induction with no cross-interference

1. Data on file with Vaxart

ELDERLY SUBJECTS HAVE SIMILAR RESPONSE TO YOUNGER ADULTS

VXA NVV-104 IMMUNOGENICITY – ASC IGA VP1 BY ELISPOT - COMPARISON

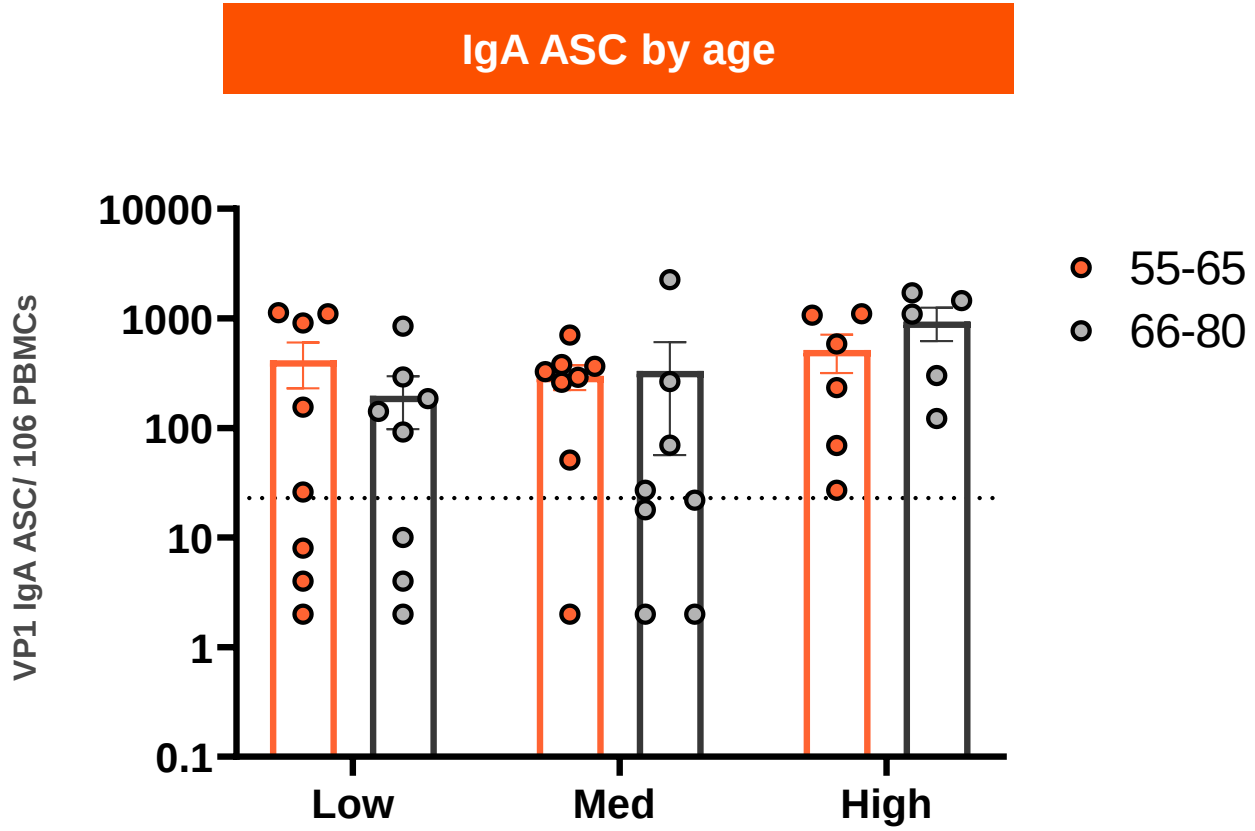
Comparison between studies IgA ASC day 7



High Dose (11 subjects, VXA-NVV-104) included in comparison. Responder level (pos/neg) is 23 spots.

Not typical for vaccines to have similar responses in young and elderly subjects

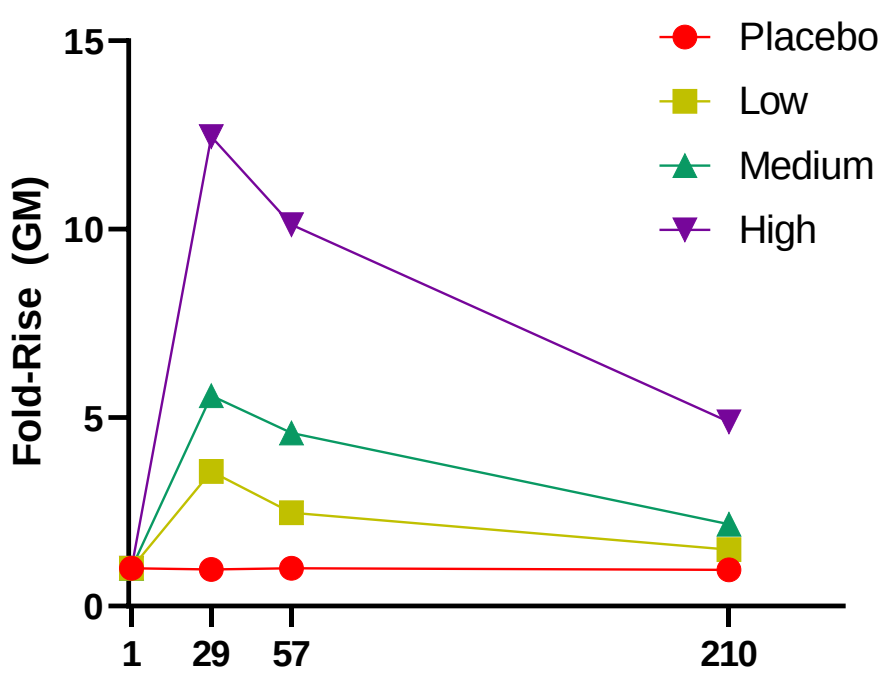
NO DIFFERENCE BETWEEN OLDER AND YOUNGER SUBJECTS IN ASC VXA NVV-104 IMMUNOGENICITY – ASC IGA VP1 BY ELISPOT – DOSE ANALYSIS



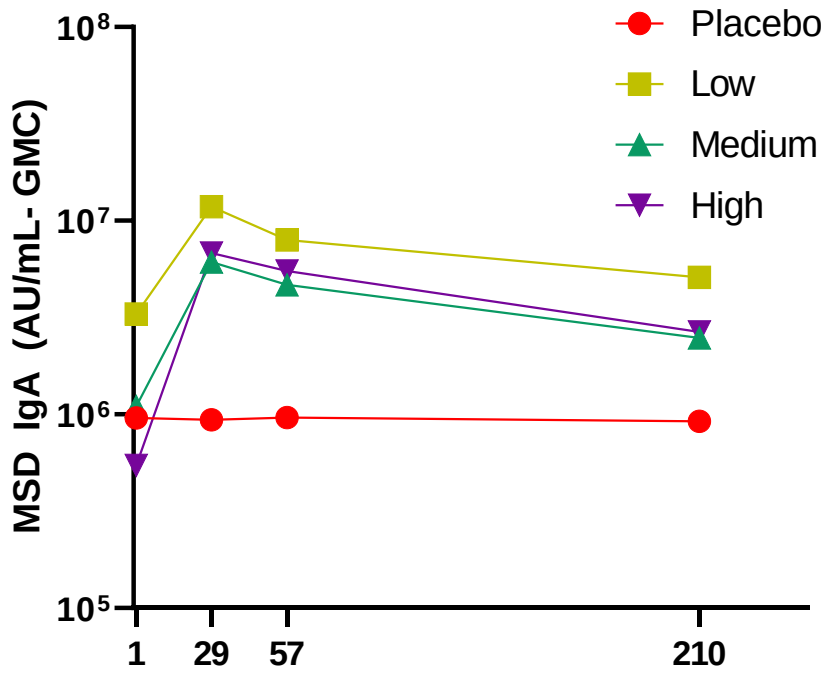
Cut-off for responder (dotted line) is 23 spots

SUSTAINED IGA ANTIBODY RESPONSES AFTER 200 DAYS

MSD-IgA-AU/mL - Fold

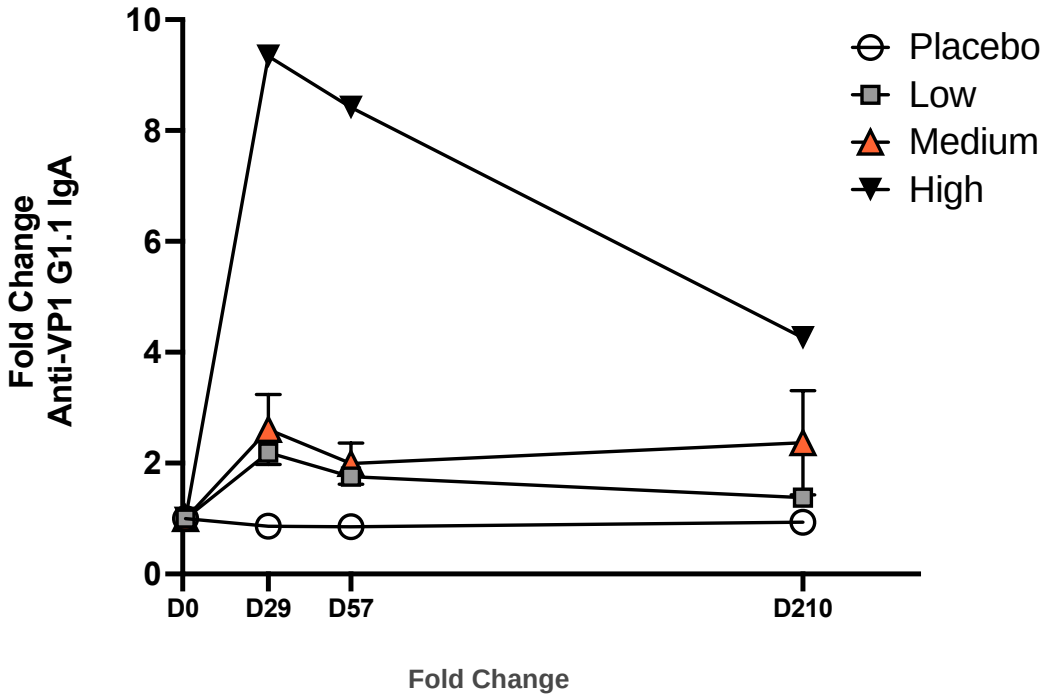


MSD-IgA-AU/mL

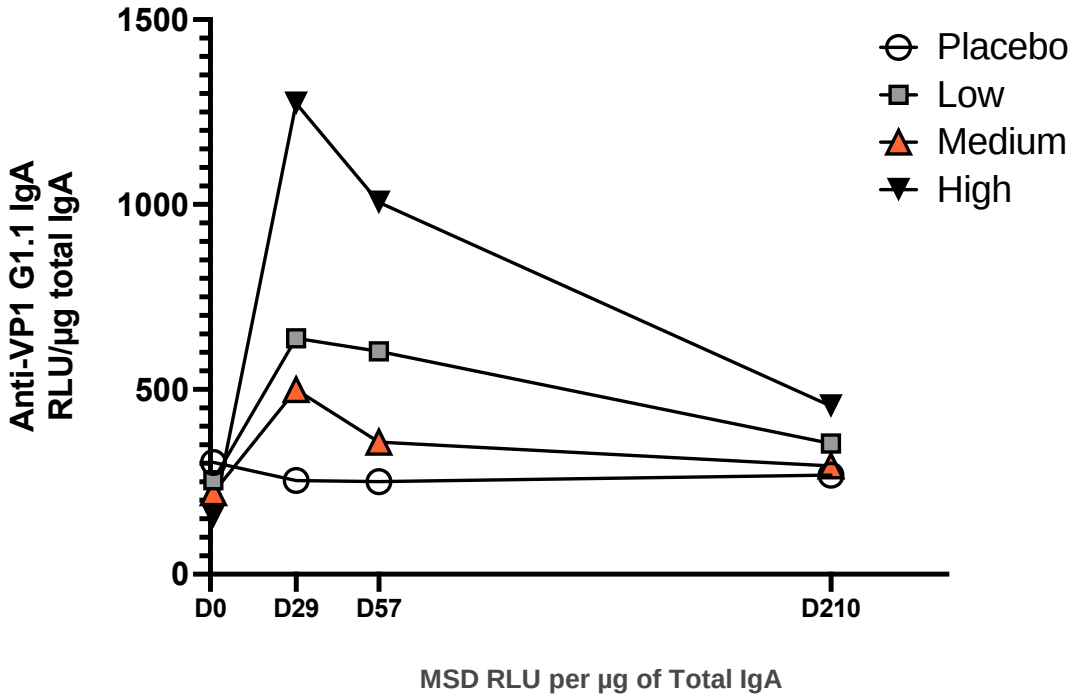


SUSTAINED NASAL MUCOSAL RESPONSES AFTER 200 DAYS

Nasal IgA G1.1



Nasal IgA G1.1



VAXART PROGRAMS

1. **Influenza**
2. **Norovirus**
3. **COVID-19**
4. **RSV**
5. **HPV**

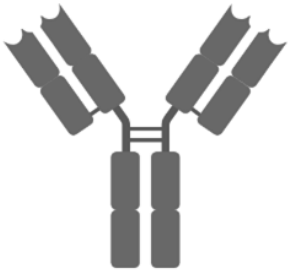
Highlights:

- Vaccines trigger robust mucosal responses
  - Cross-reactive
  - Durable responses – to 360 days
  - Reduces transmission
- Serum boosting of mRNA vaccines (S construct)
- Superior T-cell responses (S&N construct)
- Benign tolerability profile

IGA MUCOSAL RESPONSES HAVE GREATER CROSS-REACTIVITY VS. IGG SYSTEMIC RESPONSES

ANTIBODY CROSS-REACTIVITY: IGG VS. IGA

IgG



Characteristics:

- Major antibody isotype induced systemically
- Major isotype produced by mRNA vaccines
- Binding affinity is significantly reduced when challenged with variants
- Has shown poor cross-reactivity with respect to known variants[1,2]

IgA

Characteristics:

- Predominantly present in the mucosal tissues
- Efficiently produced through VAAST™ platform
- Minimal decrease in binding affinity when challenged with variants
- Shown to have greater cross-reactivity against both Sars-CoV-21 and Influenza[2] variants

Cross-reactive nature of our platform - mucosal IgA responses lead to high variant coverage

Source: 1. Ejemel, et al, *Nature,* 2020 ; 2. Muramatsu, et al, *PLOS,* 2014.

COVID-19: VACCINE CONSTRUCTS

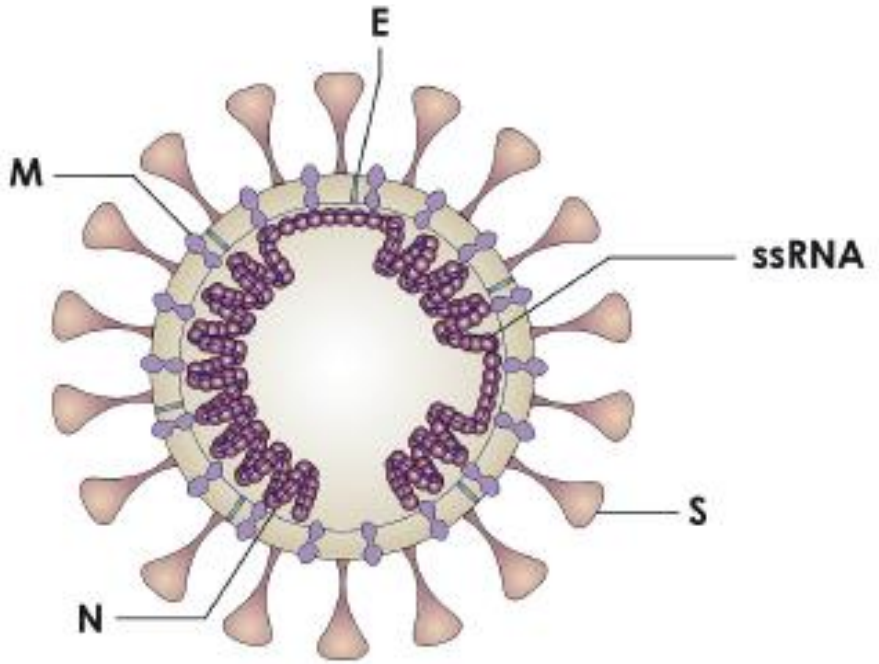
VAXART IS DEVELOPING TWO DIFFERENT COVID-19 CANDIDATE CONSTRUCTS

VXA-CoV2-1 (Expresses S + N): Completed Phase I

- Highly immunogenic on eliciting T cells, to both S and N
- T-cell responses to the S appear much higher than those of injectable mRNA vaccines in Phase 1 study[1]
- Cross-reactive mucosal IgA
- Durable responses to 360 days
- Benign tolerability

VXA-CoV2-1.1-S (Expresses only S): Completed Phase IIa

- 74% had an immune response post vaccination
- Better serum responses than S+N
- Ability to boost mRNA vaccines
- Makes cross reactive mucosal IgA
- Benign tolerability



1. Data on file with Vaxart

COVID-19: PHASE I STUDY DESIGN

	Vaccine	Dose	# of Doses	# of Subjects
Cohort 1 (Sentinels)	VXA-CoV2-1	$1x10^{10}$ I.U.	2	5
Cohort 2	VXA-CoV2-1	$1x10^{10}$ I.U.	1	15
Cohort 3	VXA-CoV2-1	$5x10^{10}$ I.U.	1	15

Solicited Symptom Days (1 – 8)	Low Dose (n=20)	High Dose (n=15)
No. (%) with Solicited Symptoms	4 (20)	10 (66.7)
General Symptoms		
Malaise/Fatigue	2 (10)	2 (13.3)
Myalgia (Muscle Pain)	1 (5.0)	1 (6.7)
Anorexia	0 (00)	2 (13.3)
Headache	3 (15)	2 (13.3)
Fever	0 (00)	1 (6.7)
Gastrointestinal Symptoms		
Diarrhea	0 (00)	4 (26.7)
Nausea	0 (00)	5 (33.3)
Vomiting	0 (00)	0
Abdominal Pain	1 (5.0)	2 (13.3)

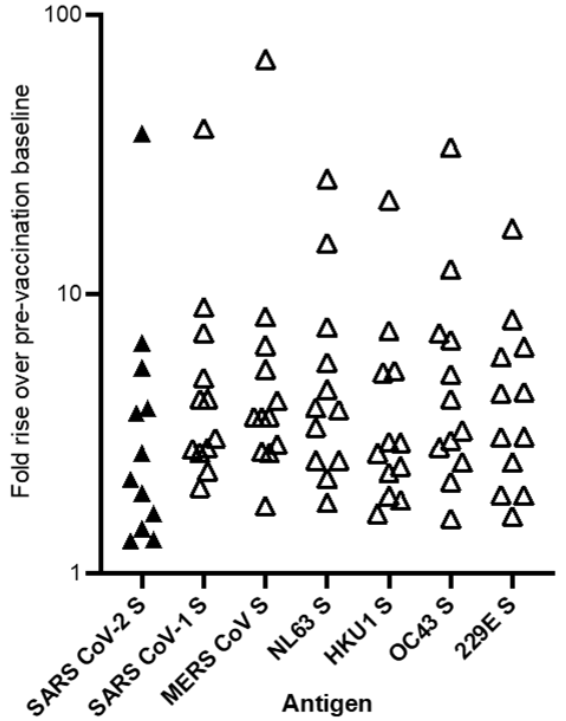
- Most Solicited Adverse Events mild and transient; few moderates @ Days 2 to 6
- 6 Mild unsolicited AEs: sore throat, epistaxis, chills, dry sinus, back pain & testicular pain
- No SAEs or MAAEs reported to date

CROSS-REACTIVE NASAL IGA RESPONSE TO ALL TESTED CORONAVIRUSES

- The 46% of subjects that had increased IgA antibodies to SARS-CoV-2 S also had increased antibody responses to the S protein of other coronaviruses, including SARS-CoV-1, MERS, and endemic common cold viruses
- Beneficial for maintaining immunization protection against current and future COVID-19 variants (Delta, Omicron, etc.)

VXA-CoV2-1 (Expresses S + N)

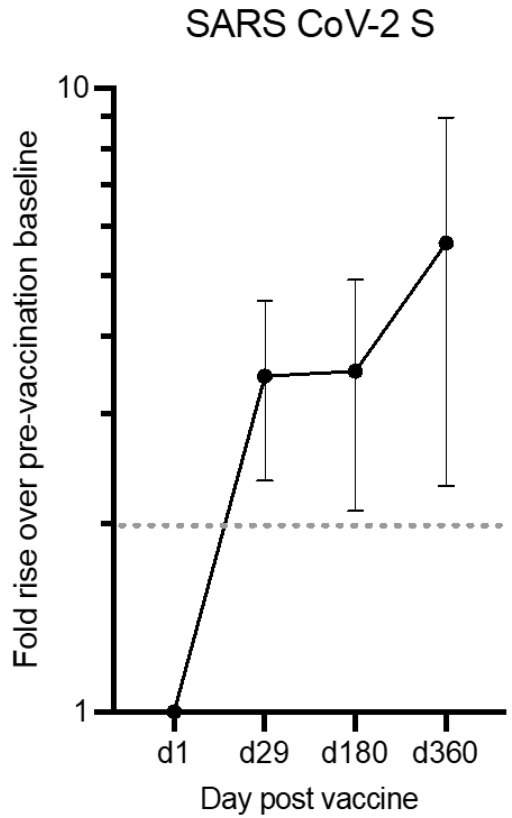
IgA Cross-Reactivity to Other Coronaviruses



LONG-LASTING NASAL IGA RESPONSES TO AT LEAST ONE YEAR

- 46% of subjects had a 1.5-fold increase or better against SARS-CoV2-S
- These responses remained elevated for 1 year

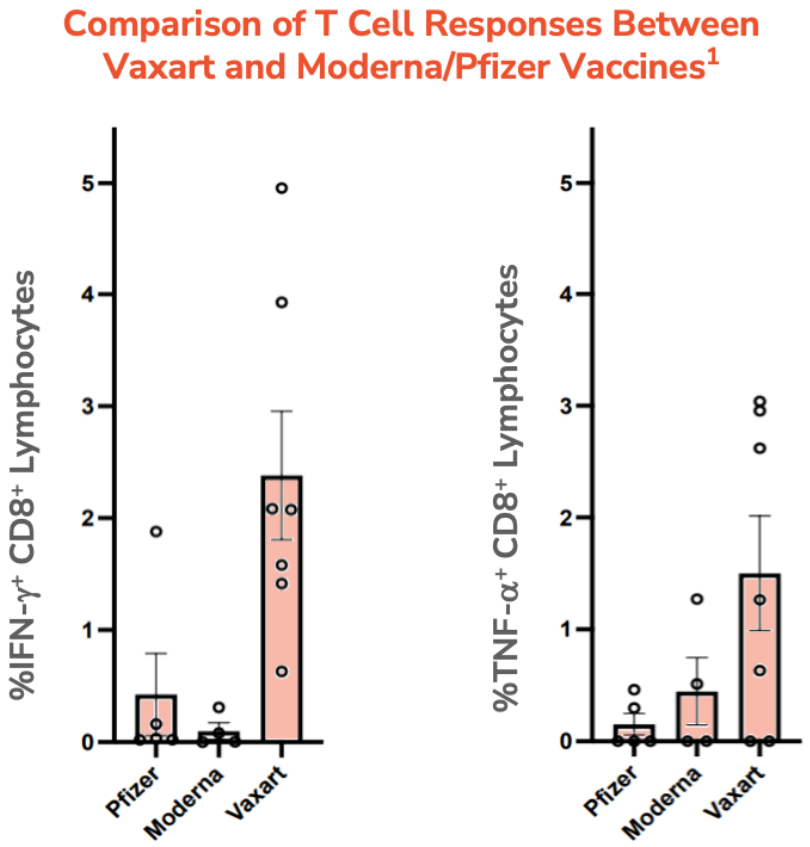
VXA-CoV2-1 antibody responses



ROBUST CD8 T CELL RESPONSE BETTER THAN MRNA VACCINES

- Human clinical data - Vaxart S+N COVID vaccine given to volunteers. T cells compared to humans given an mRNA vaccine
- New patents filed in 2021/2022

Induction of T cells responses measured 7 days after the first dose. Increase over day 1 for IFN-g and TNF-a are shown.



Frozen PBMC samples from Vaxart's Phase I trial were compared to PBMCs from volunteers that were immunized with the Pfizer or Moderna vaccines under EUA. Analysis was done at the same time points post immunization.

WHY T CELLS MAY BE IMPORTANT FOR A VACCINE

- Cross-protective
- Long-lasting
- Reduces severity and length of the infection
- Mucosal T cells may be capable of blocking shedding and transmission
- Higher T cell responses correlated to protection against COVID disease in prospective study of first responders (Wylie, et al, Medrxiv, 2020)
- Broader antigenic repertoire than antibody responses - T cell responses recognize at least 30-40 epitopes in each donor, as measured in 99 subjects (Tarke, Cell Reports Medicine, Jan 21)

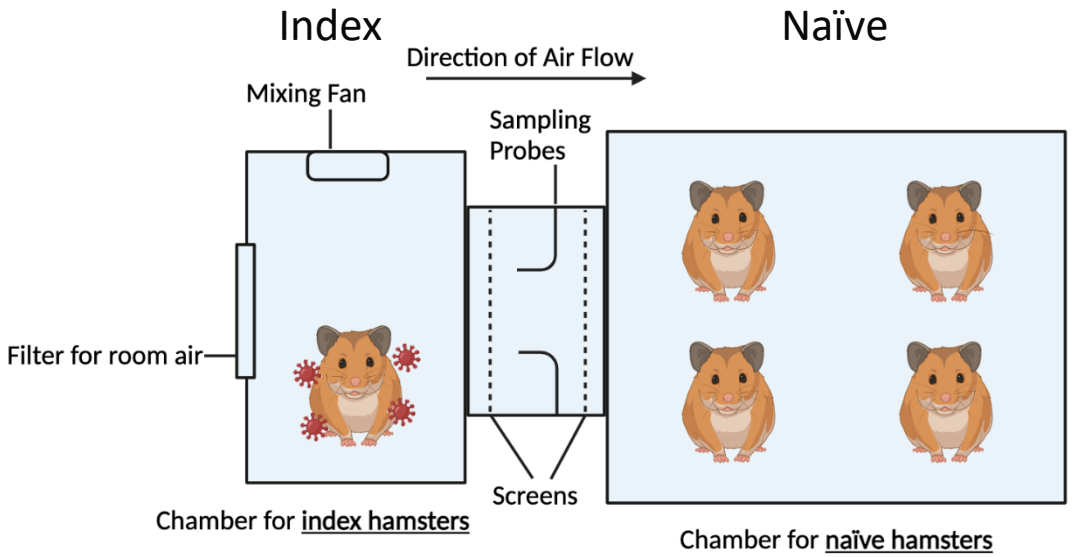
TRANSMISSION BLOCKING EXPERIMENT

Goal: Evaluate whether mucosal vaccination blocks transmission and shedding better than an injected vaccine for aerosolized viruses

Method: Vaccinate animals, give high dose of SARS-CoV-2 (create vaccine breakthrough), expose to vaccine naïve animals for 8 hours

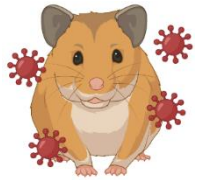
Index animals vaccination groups:

- Vaxart oral rAd-S
- Vaxart intranasal rAd-S
- Intramuscular S protein
- Placebo (oral)



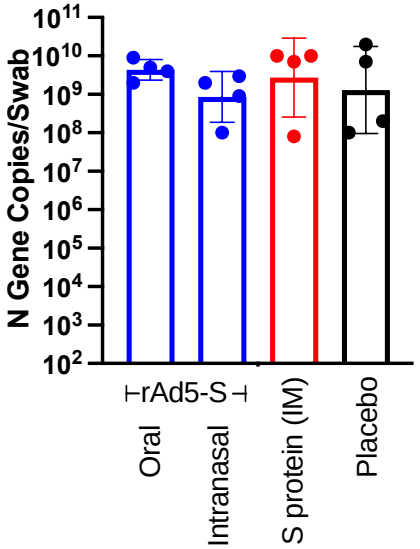
TRANSMISSION REDUCTION: VIRAL AND DISEASE BURDEN IS DECREASED IN NAÏVE ANIMALS EXPOSED TO MUCOSALLY VACCINATED ANIMALS

INDEX ANIMALS
Vaccine Breakthrough



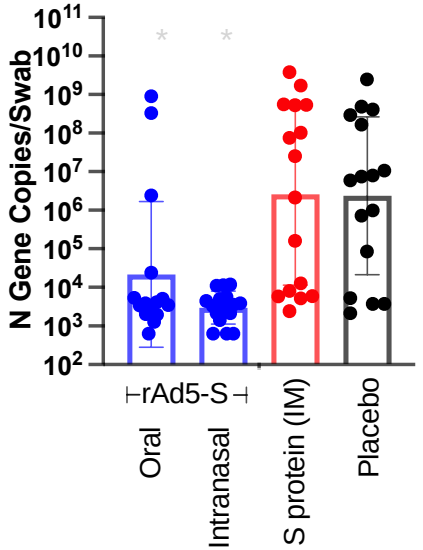
Aerosol exposure (8 hrs)

Day 1 post infection



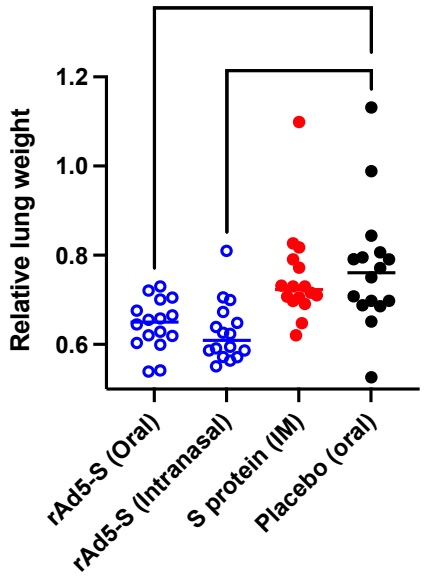
NAÏVE ANIMALS
Unvaccinated

Day 1 post exposure



NAÏVE ANIMALS
Protected from illness 5 days after exposure

Lung Weights as a Percent of Body Weight



Langel et al, *Sci Translational Med* , 2022

VAXART

* P <0.012 by Fishers' Exact

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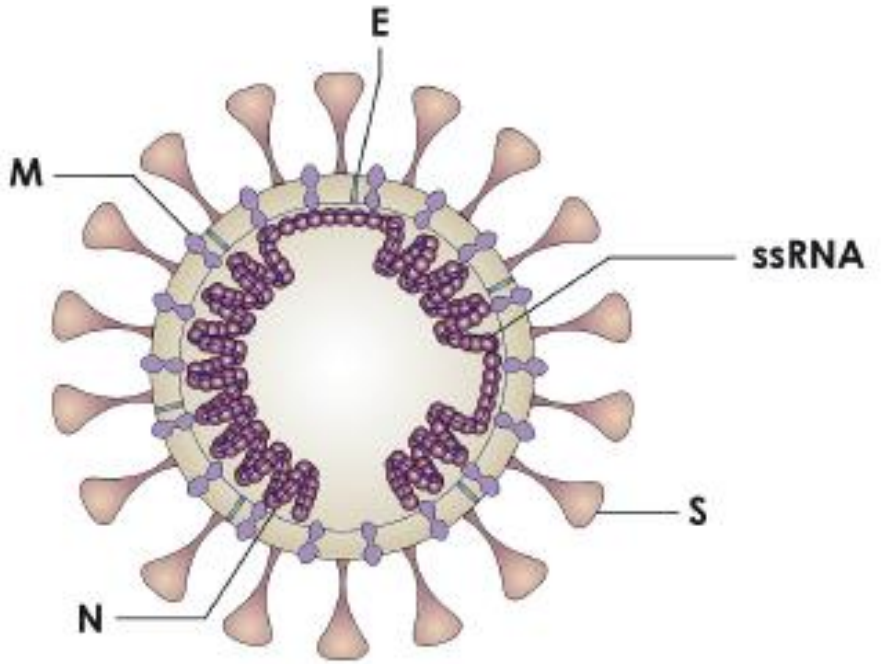
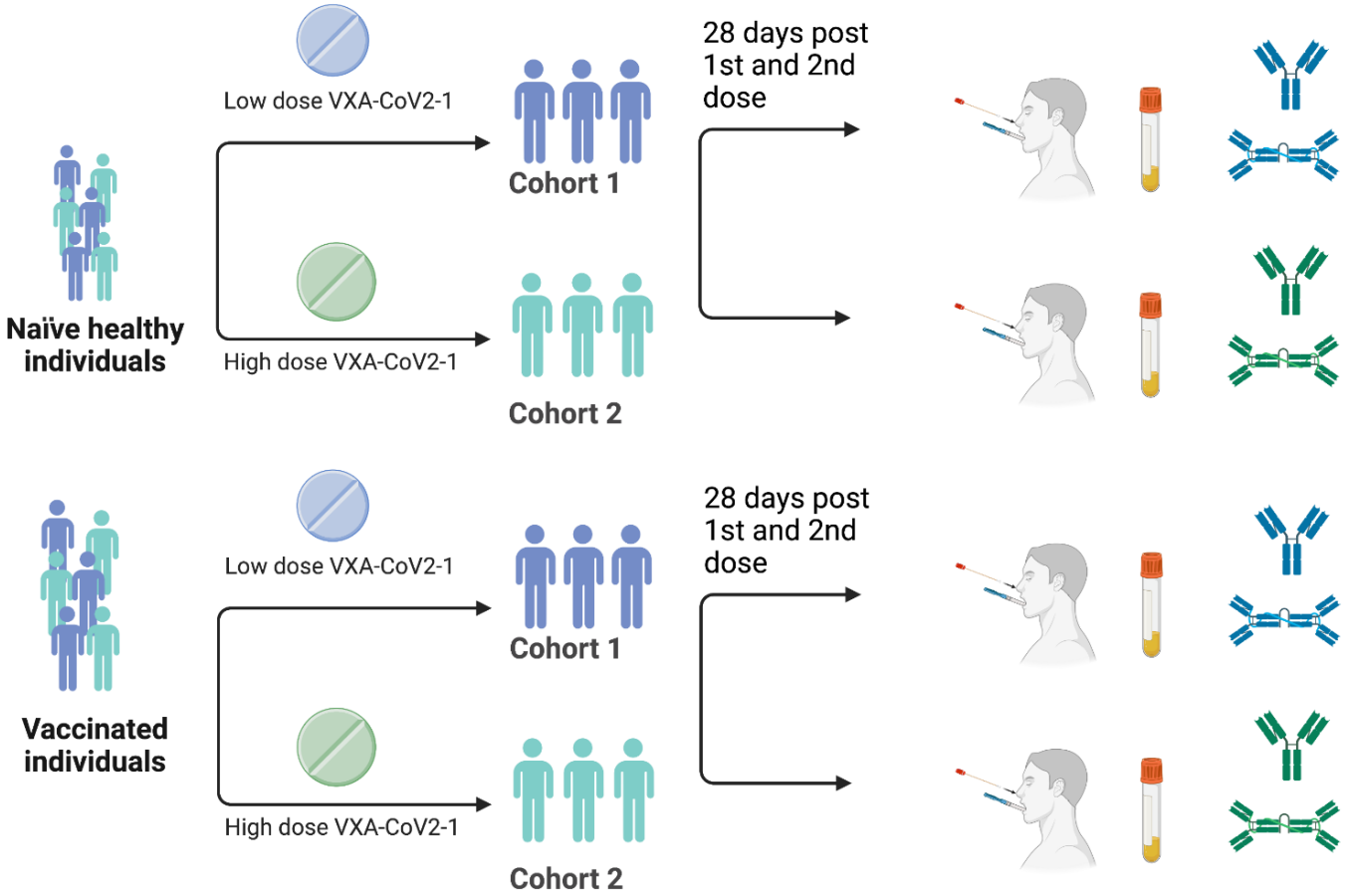


1. Data on file with Vaxart

SAFETY & IMMUNOGENICITY



- Antibodies in the serum and the mucosa were measured 1 month after first and 1 month after second dose
- Do we get a response in the serum and at the site of infection (mucosal – nasal/saliva)?

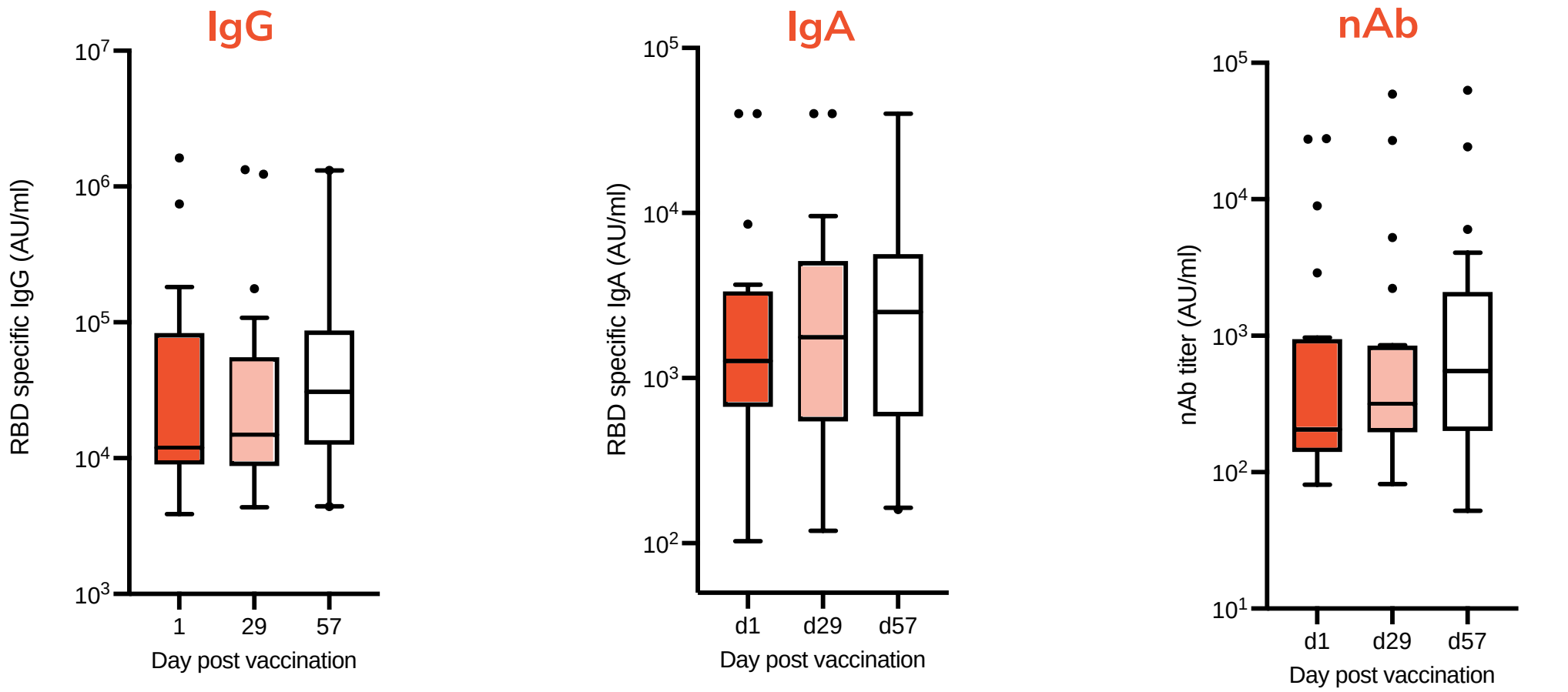
VXA-COV2-1.1-S WAS WELL-TOLERATED

Both Doses (1 and 2) Unconfirmed	**Cohort 1 (Naïve)** All Ages 18-75 (N=29)	Cohort 2 (Prior Vax) All Ages 18-75 (N=37)
	n (%)	n (%)
# Subjects with any Solicited Symptoms	13 (44.8)	21 (56.8)
Malaise	7 (24.1)	8 (21.6)
Fatigue	5 (17.2)	7 (18.9)
Myalgia (Muscle Pain)	5 (17.2)	5 (13.5)
Anorexia	0 (0.0)	1 (2.7)
Headache	8 (27.6)	8 (21.6)
Diarrhea	3 (10.3)	5 (13.5)
Nausea	2 (6.9)	5 (13.5)
Vomiting	0 (0.0)	0 (0.0)
Abdominal Pain	3 (10.3)	4 (10.8)

VAXART

* All solicited symptoms were mild or moderate

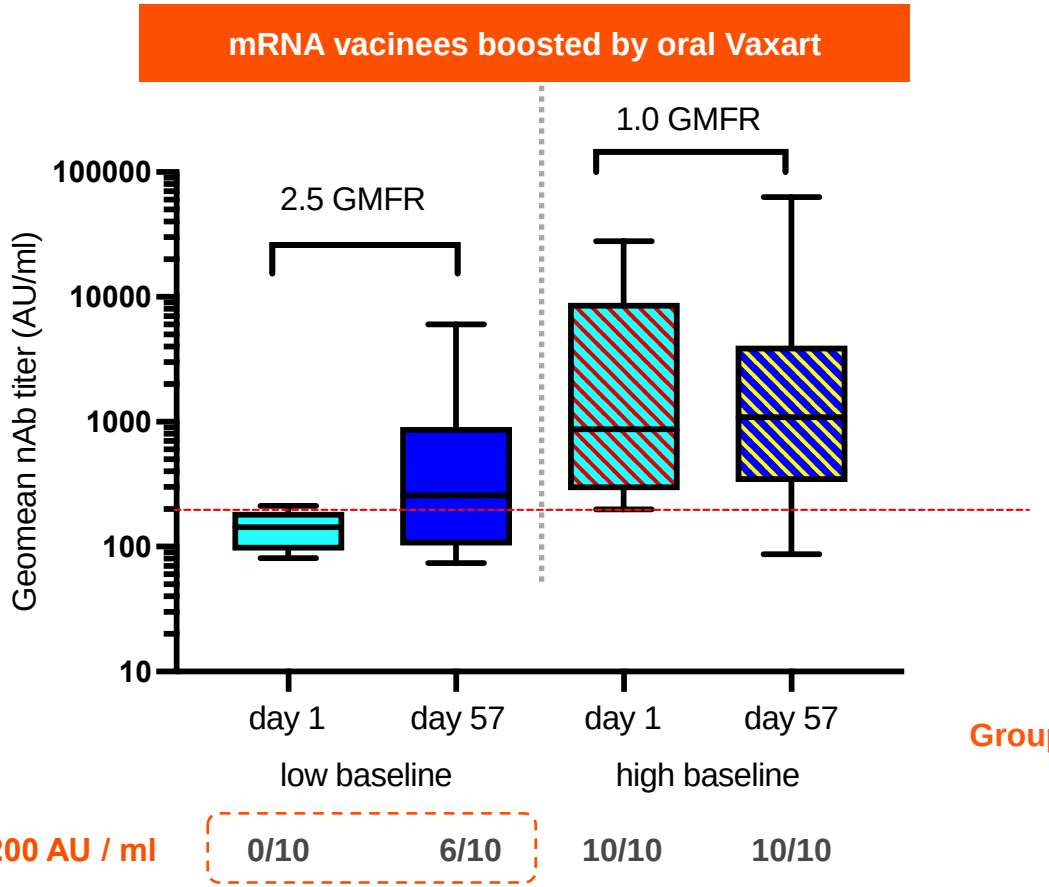
VXA-COV2-1.1-S BOOSTS SERUM & NEUTRALIZING RESPONSES IN VACCINATED INDIVIDUALS



From those mRNA vaccinated, 18-55 cohorts

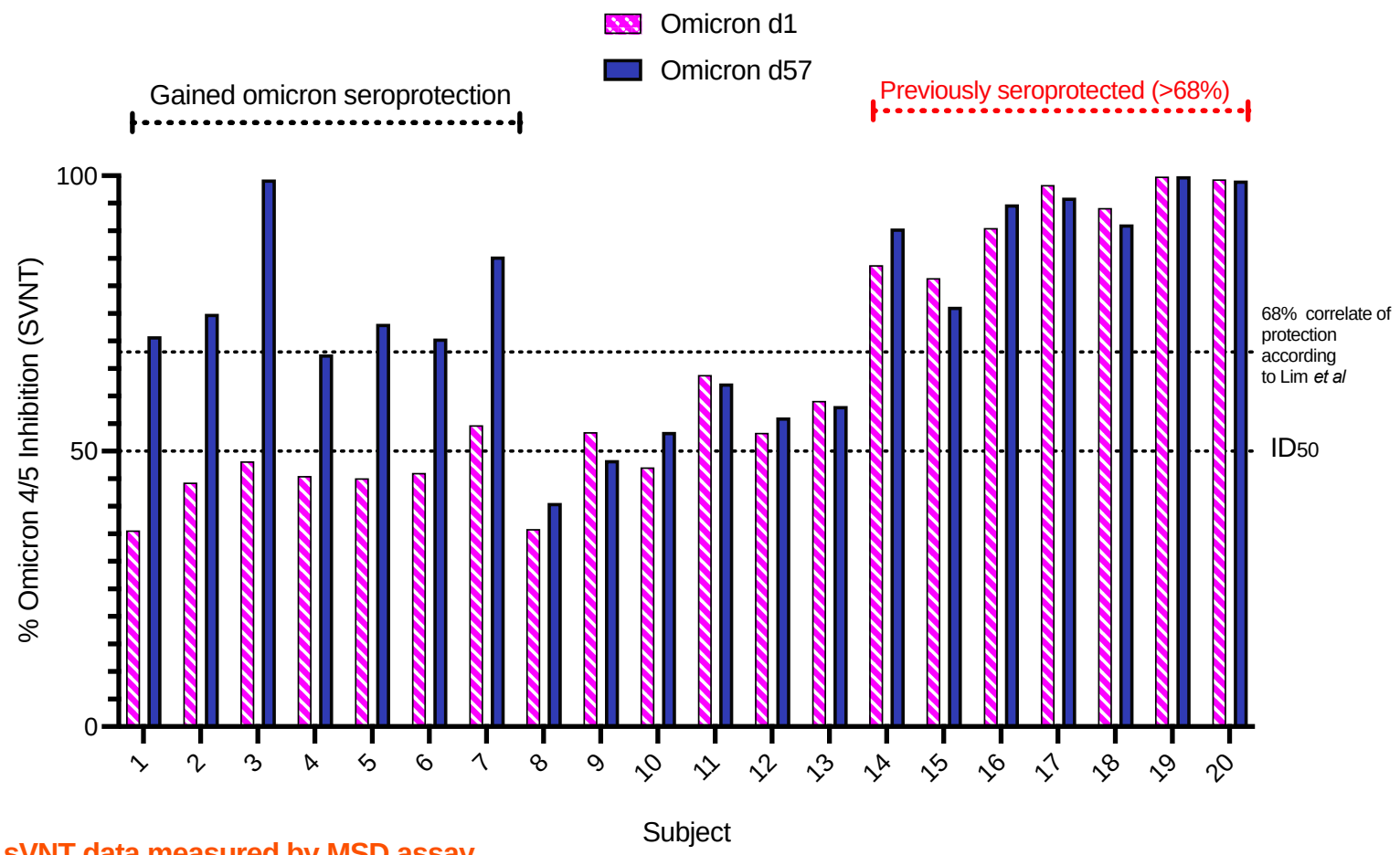
VXA-COV2-1.1-S BOOSTS MRNA VACCINES BY INCREASING MORE THE RESPONSES OF SUBJECTS WITH LOWER BASELINE TITERS

Subjects with nAb titers ≥ 200 AU / ml increased from 50% at Day 1 to 80% at Day 57



Groups 2a and 2b

CROSS-REACTIVITY: VAXART'S ORAL WUHAN VACCINE INCREASED "SEROPROTECTION" AGAINST OMICRON 4/5



35% of subjects were "seroprotected" against Omicron 4/5 pre-vaccination, 70% post-oral vaccination

sVNT data measured by MSD assay

Groups 2a and 2b

VAXART PROGRAMS

1. Influenza
2. Norovirus
3. COVID-19
4. **RSV**
5. HPV

RSV VACCINE MARKET OPPORTUNITY

$5+ billion
market opportunity in U.S.

58,000+
hospitalizations of children < age 5

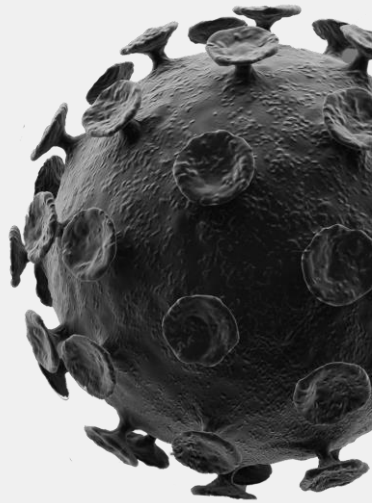
177,000+
hospitalizations of adults 65+

$6+ billion
in hospitalization costs each year caused by RSV

2,100,000
outpatient visits for age 5 and younger caused by RSV in the U.S.

14,000
deaths linked to RSV annually

RSV is the most common cause of bronchiolitis and pneumonia in children under one year of age in the U.S.

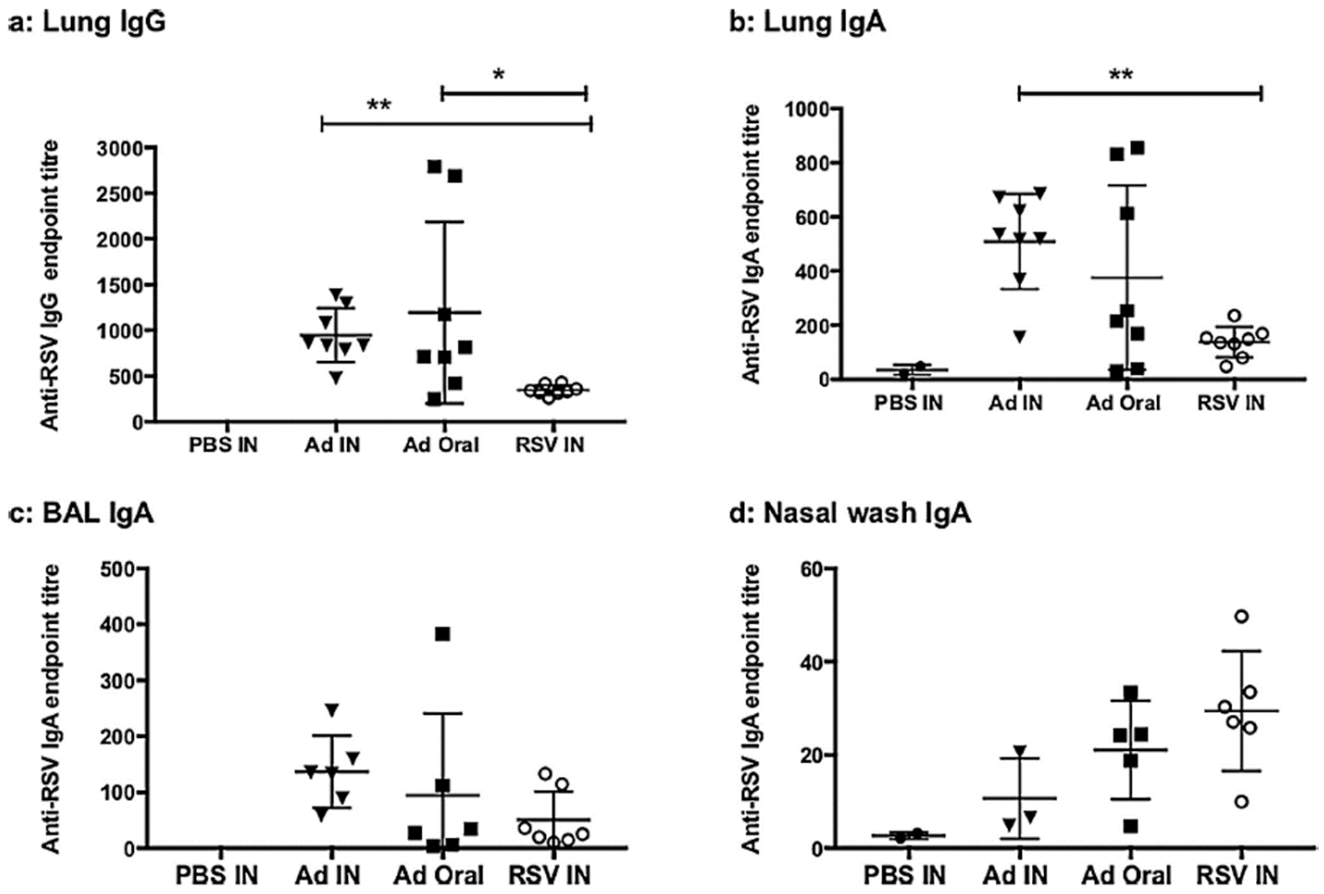


VAXART

Source: Centers for Disease Control and Prevention – Emergency Preparedness - RSV

RSV: PRECLINICAL DATA

ORAL VACCINE ELICITS ROBUST ANTI-RSV IGG AND IGA RESPONSES



Ad-RSVF immunization by oral or intranasal (IN) route induced significantly greater respiratory humoral immunity compared to RSV infection

- Cotton rats (n = 8 per group) were immunized with 1e10 IFU of Ad-RSVF by the intranasal or oral route
- One group was treated with PBS intranasally, and one group received RSV A2 by the IN route
- Animals were immunized or infected with RSV on days 0 and 28 and samples were harvested on day 42

VAXART

Source: Joyce et al., *Vaccine*, May 2018

VAXART PROGRAMS

1. Influenza
2. Norovirus
3. COVID-19
4. RSV
5. HPV

HPV VACCINE MARKET OPPORTUNITY

$600+ million
market opportunity in U.S.

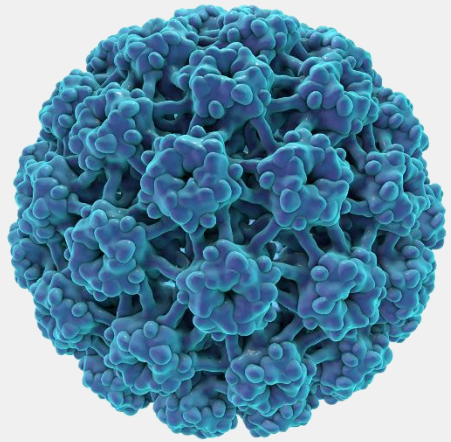
46,000
cancer cases associated with HPV in the U.S. annually

56% female **52%** male
vaccination coverage – far below national goals of 80%

43,000,000
illnesses/year caused by HPV in the U.S. – most common STI

200,000
cervical pre-cancer cases diagnosed in U.S. annually

36,500
cancers cases caused by HPV in the U.S. annually

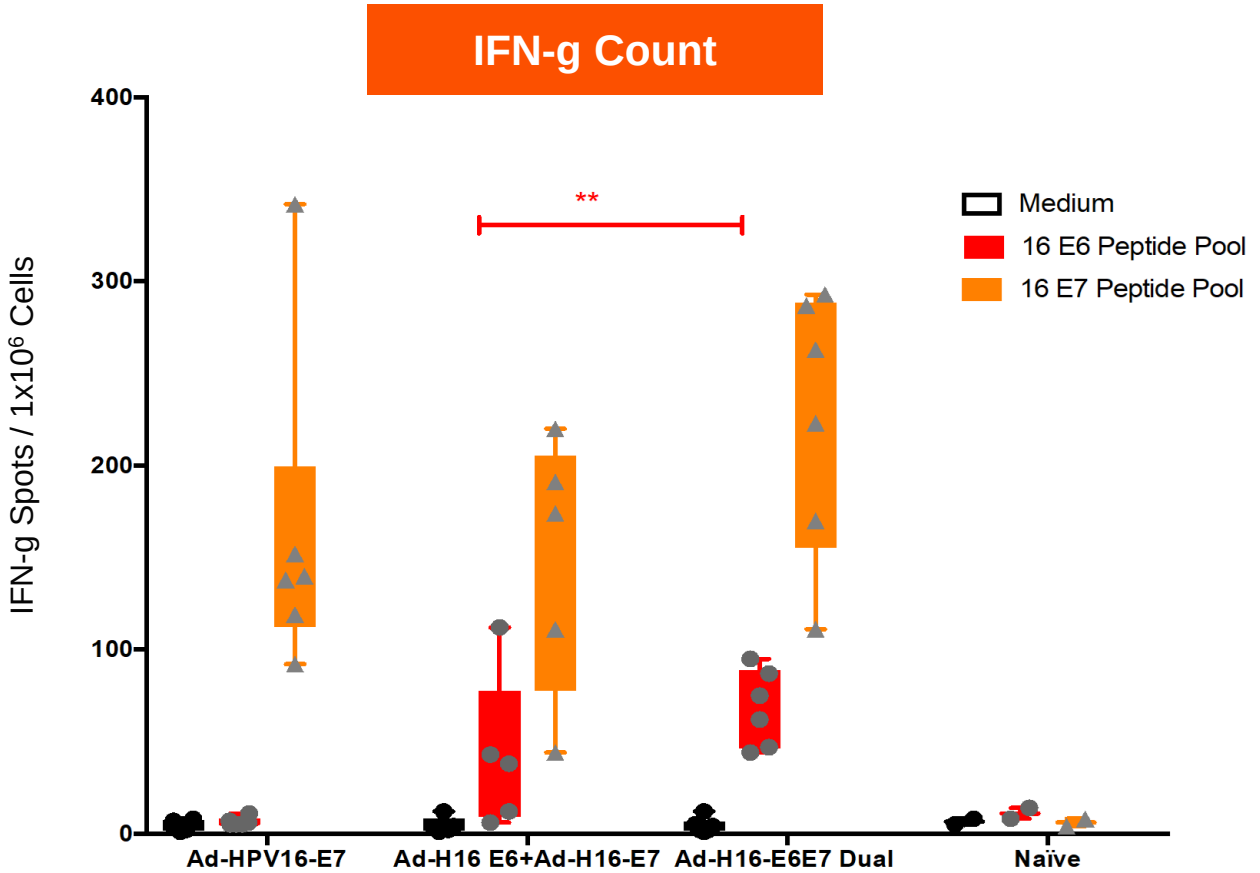


VAXART

Source: Kaiser Family Foundation (KFF) – Women's Health Policy – The HPV Vaccine: Access and Use in the U.S.. (12 July 2021); Centers for Disease Control and Prevention – Cancer Home – HPV and Cancer – HPV-Associated Cancer Statistics.

HPV: ROBUST T CELL RESPONSES TO BOTH HPV ANTIGENS

IFN-G RESPONSES SIGNIFICANTLY INCREASED WITH VAXART'S ORAL VACCINE

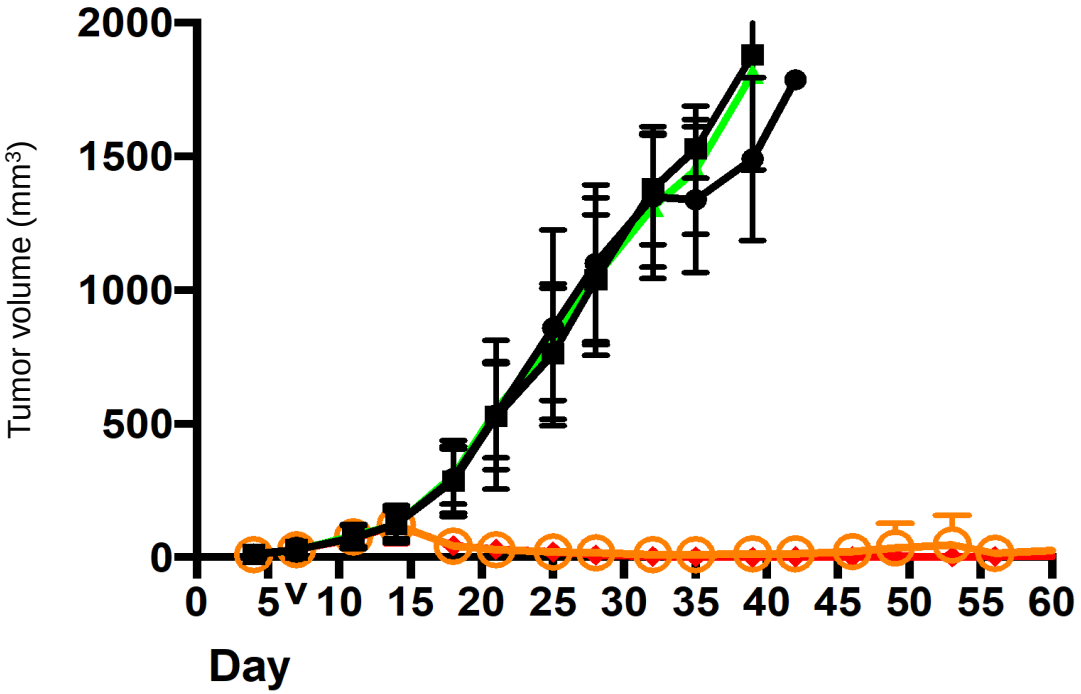


Significant increase in IFN-g levels in response to oral vaccine with both E6/E7 antigens separately as well as combined

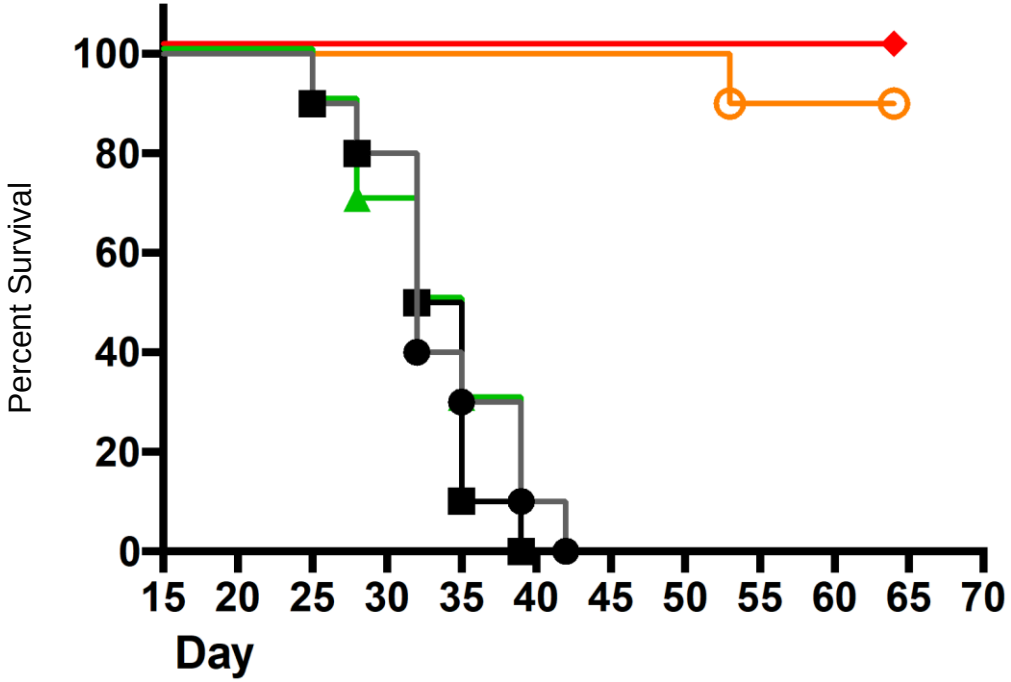
- C57BL/6 mice immunized days 1 & 28
- Splenocytes harvested day 42

HPV: SIGNIFICANT DECREASES IN TUMOR VOLUME COUPLED WITH SIGNIFICANT INCREASE IN MOUSE SURVIVAL

Tumor Volume



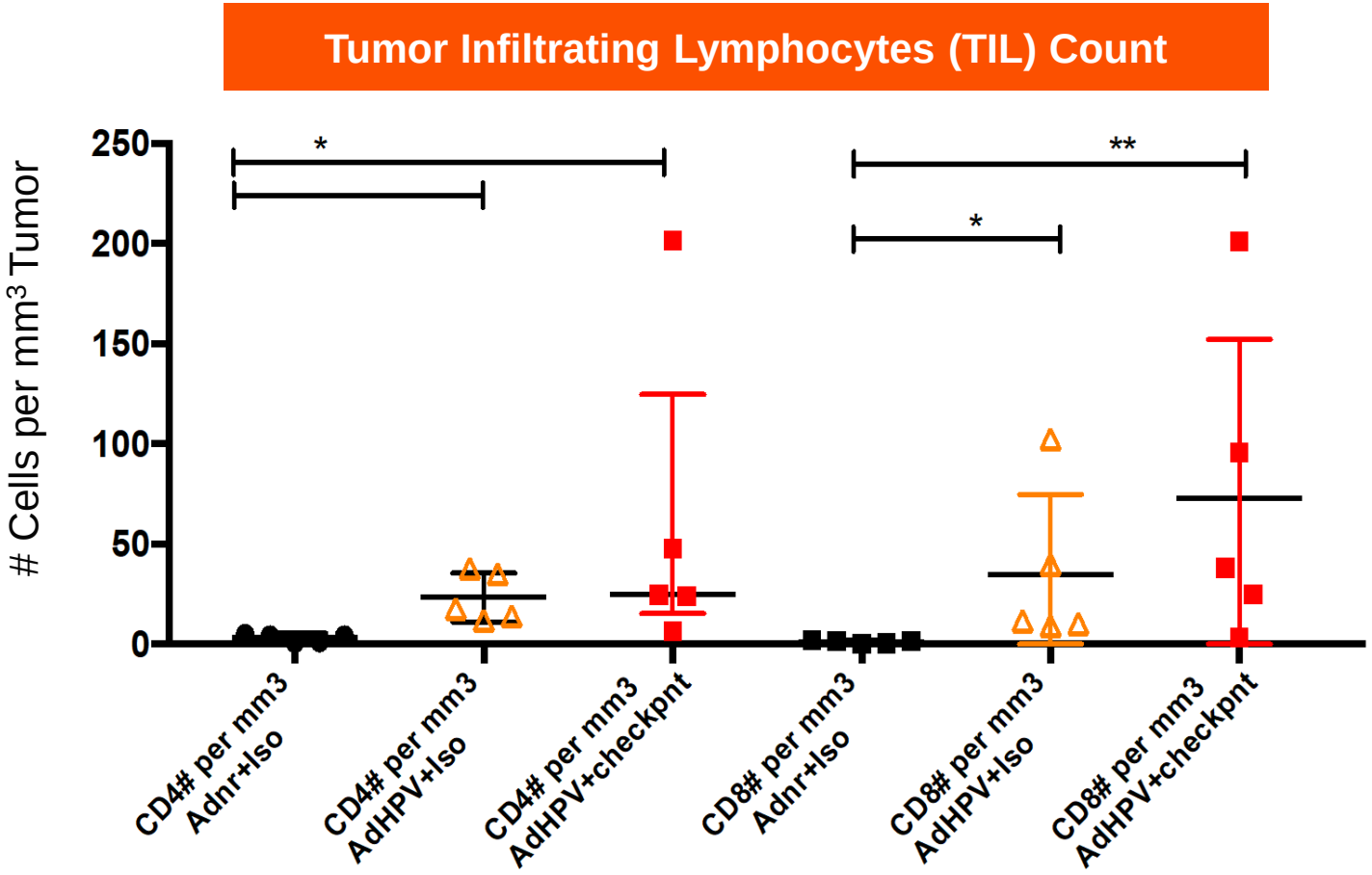
Survival



G1 Untreated G2 Ad-nr + Iso G3 Ad-nr + checkpoint inhib G4 Ad-HPV+ Iso G5 Ad-HPV + checkpoint inhib

HPV: DUAL VACCINE INDUCES BOTH CD4 AND CD8 TILS

ESSENTIAL FOR EFFECTIVE AND DURABLE ANTI-TUMOR RESPONSE

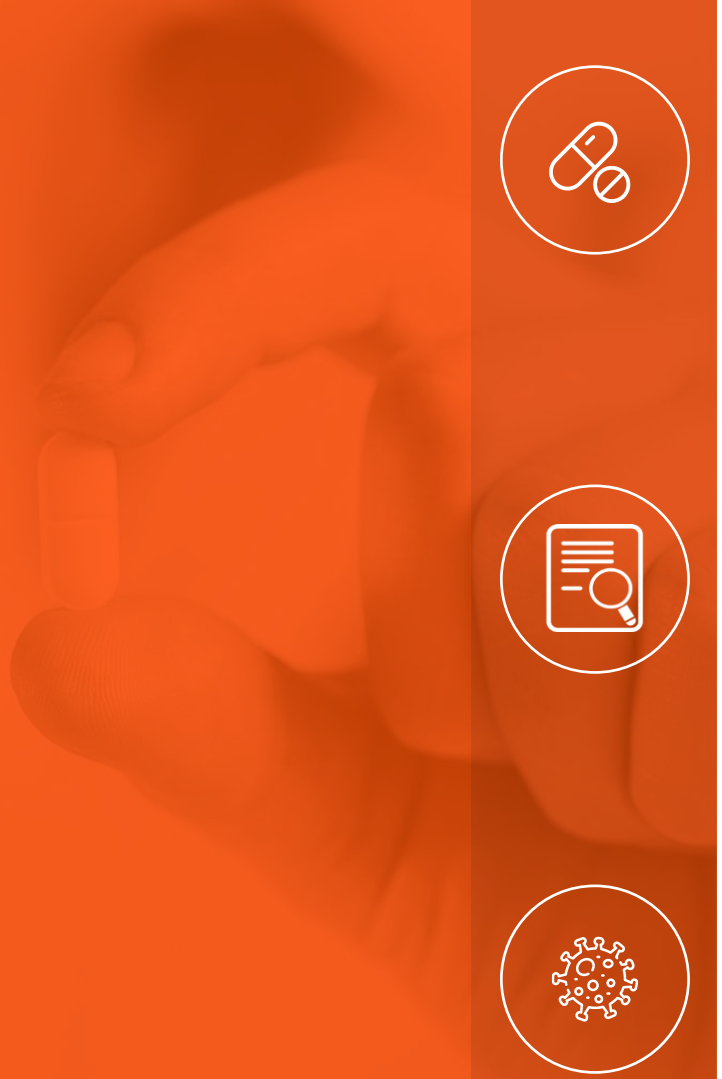


Oral vaccine elicits CD4+ and CD8+ TIL infiltration

Further increased in combination with checkpoint inhibitors

- Two immunizations (days 13 and 20)
- Harvested at day 24
- TILs counted by FACS

EXECUTIVE SUMMARY



Transformative Oral Tablet Vaccine Platform

- The only oral vaccine shown to be as protective as an injectable against a respiratory pandemic virus in humans
- Triggers systemic AND mucosal immunity
- Room-temperature stable
- Can deliver any antigen of interest (e.g., Norovirus, HPV, Influenza,, etc.)
- Completed 15 clinical trials against 7 different viruses, vaccinating 500+ subjects

Data suggests it may offer four key advantages over injectables

- Cross-reactivity against variants
- Reduction in transmission
- Durable immune responses
- Benign tolerability

Clinical Pipeline Overview

- Influenza vaccine candidate protected as well as market-leading Fluzone with a favorable safety and tolerability profile in a clinical challenge study
- Norovirus vaccine candidate triggered immune responses similar to natural infection, sustained after 200+ days
- COVID-19 vaccine candidates demonstrated serum and mucosal antibody responses, potent T-cell responses, cross-reactivity to variants, and reduction in transmission

VAXART