



A New Paradigm for Treating and Preventing Measles Infections





Fact Sheet



Measles Monoclonal Antibodies

Unique human monoclonals that neutralize the measles virus (MV). Prevent new measles infection by blocking the virus from entering the cell.



Market

Populations not eligible for the MMR II vaccine. Vaccination rates continue to trend downward with measles projected to become endemic once again. Canada and US lose measles elimination status



Company

Antibodies discovered by world-class measles experts. Experienced management team who have taken drugs/vaccines from preclinical stage to FDA approval.



Funding

Seeking funding of \$32 million through phase 1 study.

Proven Leadership Team

Dr. Ronald Moss, CEO

- Seasoned physician-scientist.
- Led multiple antiviral and vaccine programs from early-stage research through late-stage clinical trials and NDA/BLA.
- Held executive positions at Merck, and CEO positions at Red Queen, Diosynvax, and Ansun Biopharma.
- Obtained BARDA and NIH-funding.
- Capital raises in both public and private Biotech Companies.

Andrew de Guttadauro, CBO

- Seasoned biopharma executive with over 30 years of commercialization and business development experience.
- Led the marketing team that took Enbrel over the billion-dollar revenue threshold.
- Has negotiated licensing agreements with major biopharma companies while at Vical and Oncolytics.

Dr. Klaus Frueh, CSO

- Internationally recognized immunologist and virologist. Professor at Oregon Health and Science University.
- Conducts leading research in infectious disease and cancer immunotherapy.
- Co-founder of Vir Biotechnology.

Globally Recognized Inventor and Advisor

James Crowe (Inventor)

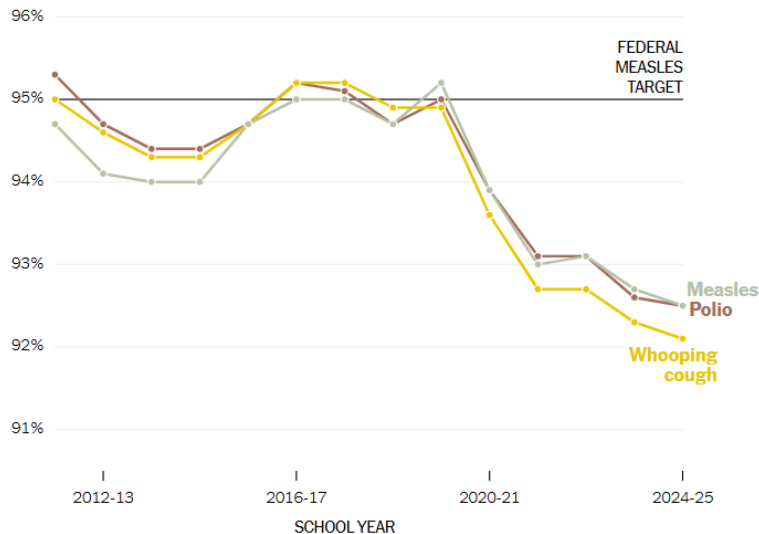
- Ann Scott Carell Professor and Professor of Pediatrics and Pathology, Microbiology and Immunology at Vanderbilt University Medical Center.
- Dr. Crowe was elected to the National Academy of Medicine in 2014 and the National Academy of Inventors in 2017. He is an elected fellow of AAM, AAAS, ASCI, AAP, IDSA, APS, and other organizations.
- His research team was selected as 2018 best academic research team at the 11th Annual Vaccine Industry Excellence Awards.
- In 2019, he was awarded the Merck Future Insight Prize for Pandemic Preparedness, a One Million Euro award shared with Pardis Sabeti of the Broad Institute.

Anne Moscona (Advisor)

- Sherie L. Morrison Professor of Microbiology and Immunology at Columbia University.
- Globally recognized virologist whose pioneering studies of paramyxovirus enabled the design of entry-blocking strategies.
- Past President, American Society of Virology.

The Problem: U.S. Measles Cases Are Rising As Vaccination Rates Decline¹

Share of U.S. kindergarteners vaccinated against...



Source: Centers for Disease Control and Prevention

Measles expected to become endemic again in the U.S. as well as other developed countries

2,073 ▶ cases reported as of June, 2026²

2,280 ▶ cases reported as of November, 2025²

30 ▶ 2026 outbreaks across 40 states²

>35K ▶ cases in Europe in 2024³

- Estimate 1 million cases over the next two decades, rising to 10 million if vaccination rates decrease an additional 10%⁴
- Kindergarten vaccinations are declining and may soon reach 90%¹; 95% vaccination rate required for herd immunity effect⁵

¹ NY Times: Childhood Vaccination Rates Have Dropped Again, CDC Data Show (07/31/2025)

² CDC: Measles Cases In 2026 (6/16/2026)

³ Contagion Live: As US Measles Cases Rise to 884, the European Centre for Disease Prevention and Control Reports Over 35,000 Infections in 2024 (04/25/2025)

⁴ JAMA: Trends in County-Level MMR Vaccination Coverage in Children in the U.S. (06/02/2025)

⁵ History of Vaccines: How Herd Immunity Works (02/22/2025)

Measles is Not a Benign Disease



About 1 in 5 unvaccinated people infected with measles are hospitalized¹

Loss of immunological memory increases risk for other infections in the future.



Many cannot receive the vaccine:²

- Pregnant women
- Newborns 12 months or less of age
- Immunocompromised individuals

CDC: Photos of Measles

5% of vaccinees do not respond to the vaccine³

¹ CDC: Measles Symptoms and Complications

² FDA: MMR II, Highlights of Prescribing Information

³ Merck: MMR II Website, Efficacy Section

⁴ Lancet Infectious Diseases: The basic reproduction number (R0) of measles: a systematic review

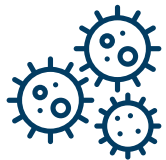


The Need: An Improved Treatment and Preventative for Measles



Commonly used treatments include:

- ① Vitamin A treatment only makes a difference in Vitamin A-deficient individuals²
- ② Post Exposure Prophylaxis (PEP) with immune globulin is sometimes used in case of MV exposure¹



Current approaches unlikely to be effective if measles becomes endemic

Post-exposure prophylaxis

Human immunoglobulin

Approved for post-exposure treatment³

BUT: many shortcomings

Potential supply issues

Short-lived protection

Declining titers in the human population

¹ GammaStan: Product website

² Infectious Diseases In Clinical Practice: Vitamin A for the Management of Measles in the United States

³ Vaccine: Post-exposure prophylaxis for the prevention of measles: A systematic review

Monoclonal Antibody Therapies Are Safe and Effective for Respiratory Viral Infections



Millions of antibody doses administered to treat COVID

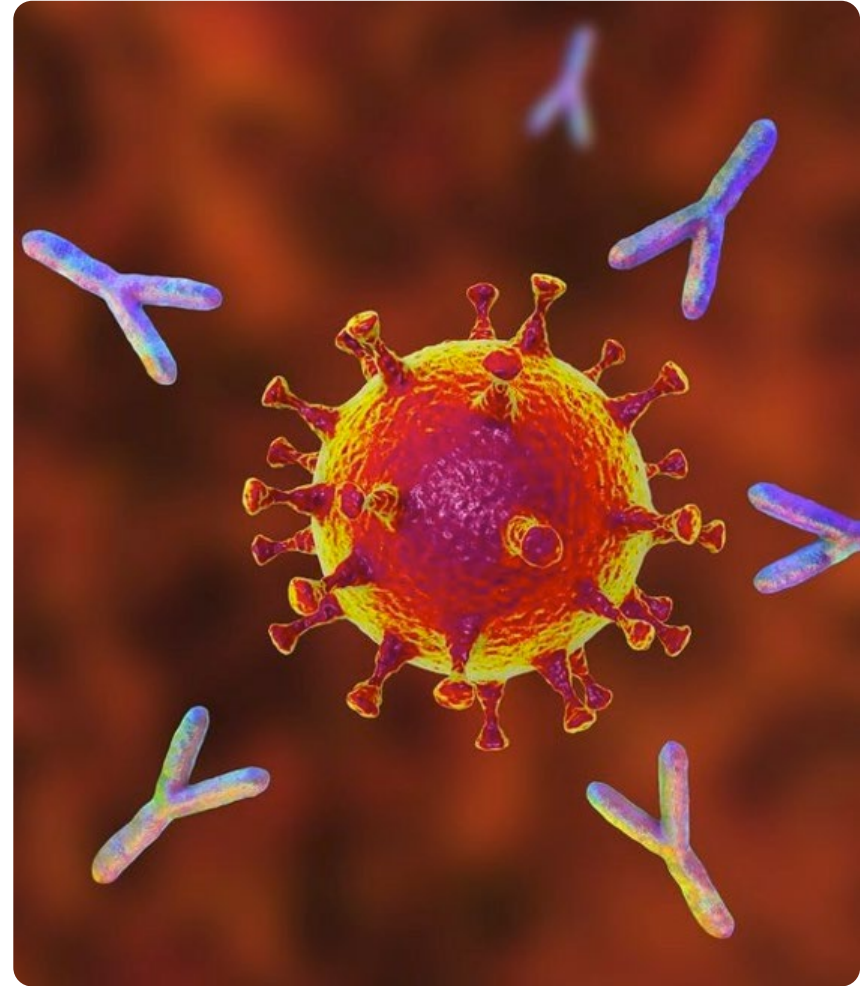
SARS CoV2 mAbs lost effectiveness against new variants

- **Measles is less variable than SARS CoV2** (50-year-old vaccine still effective)¹
- Monoclonal antibody therapies now used to protect newborns against Respiratory Syncytial Virus (RSV)^{2,3}

¹ CDC: History of Measles

² Sanofi: Beyfortus™ product approval press release (07/17/2023)

³ Merck: ENFLONISIA™ approval press release (06/09/2025)



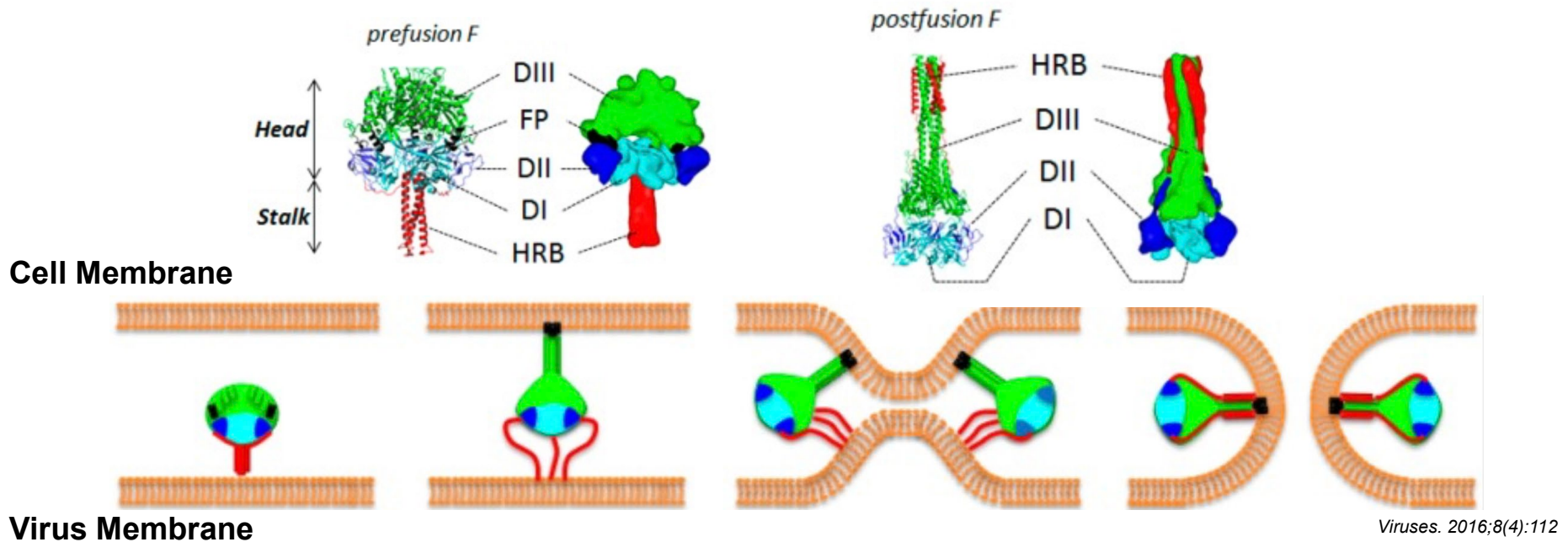
OHSU: OHSU investigating lab-made antibodies to treat COVID-19 in clinical trial (2020)

Saravir's Antibodies Bind and Neutralize the Measles Virus



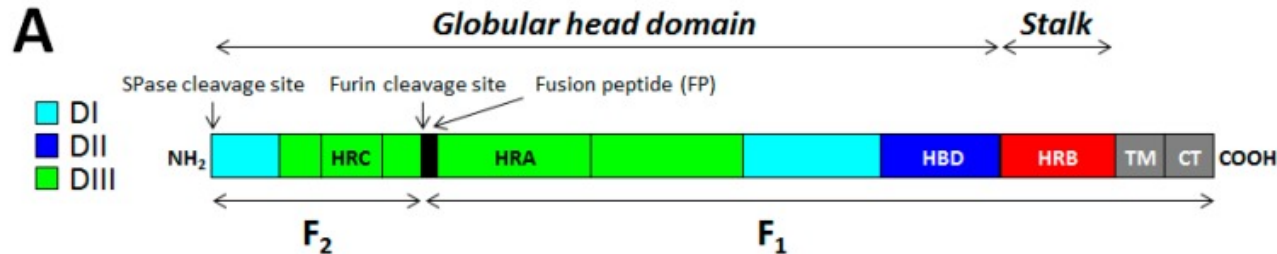
- Saravir's unique antibodies bind the fusion (F) protein of the virus and prevent the virus from entering cells.
- Antibodies were isolated from previously infected measles patients.

These antibodies bind to pre-fusion F and prevent transition to post-fusion F



Viruses. 2016;8(4):112

Characteristics of Saravir's lead candidates (licensed from Vanderbilt University)



- Human monoclonal antibodies isolated from previously infected individuals
- Bind to pre-fusion F protein with pico-molar affinity
- Arrest the F protein at pre-fusion state thus preventing entry
- Neutralize virulent and vaccine strains of measles virus
- Bind to multiple, diverse epitopes on the F protein
- No escape mutants selected for one of the lead antibodies
- Two lead antibodies bind to complementary epitopes
- Escape mutants to one lead antibody are neutralized by the other
- Lead antibodies protect against measles virus in small animal models both prophylactically and post-exposure

Paper under review

Saravir's Competitive Advantage



Human mAb prevention specifically for measles that targets unique fusion portion of the virus



Is not a vaccine or dependent on host immunity



Antibodies targeting protein of measles virus that blocks viral entry and cell to cell spread



Flexible and scalable manufacturing



Expected to be protective for months



Targets highly conserved sequences of measles virus

Measles Seronegative Volunteer Feasibility Study

Identify where measles-seronegative healthy adults are most accessible

US-only strategy · N=60 · 6 Arms · PRNT <120 mIU/mL

- **Target age 18–35 (core: 26–35)** — single-dose MMR era creates highest US seroneg density, confirmed by NY 2018–2019 and WA 2019 outbreak serology
- **Primary states: Texas, Utah, South Carolina** — lowest MMR 2-dose compliance nationally; avoid Northeast and California where coverage exceeds 95%
- **PRNT as sole screening assay** — direct to central CAP/CLIA lab with 72h SLA; no ELISA intermediate step; eligibility threshold <120 mIU/mL
- **Dedicated Phase 1 units + university feeders** — healthy volunteer databases activated first; campus partnerships for 18–25 cohort; digital ads as supplement

PRIMARY STATES

Texas · Utah · South Carolina

Lowest MMR compliance in the US

TARGET AGE

18–35 years

80% of screening effort

SCREENING

PRNT only

Central lab · 72h SLA · <120 mIU/mL

SITE TYPE

Dedicated Phase 1 Units

Large healthy volunteer databases

BACKUP TRIGGER

Screen:Enroll >6:1

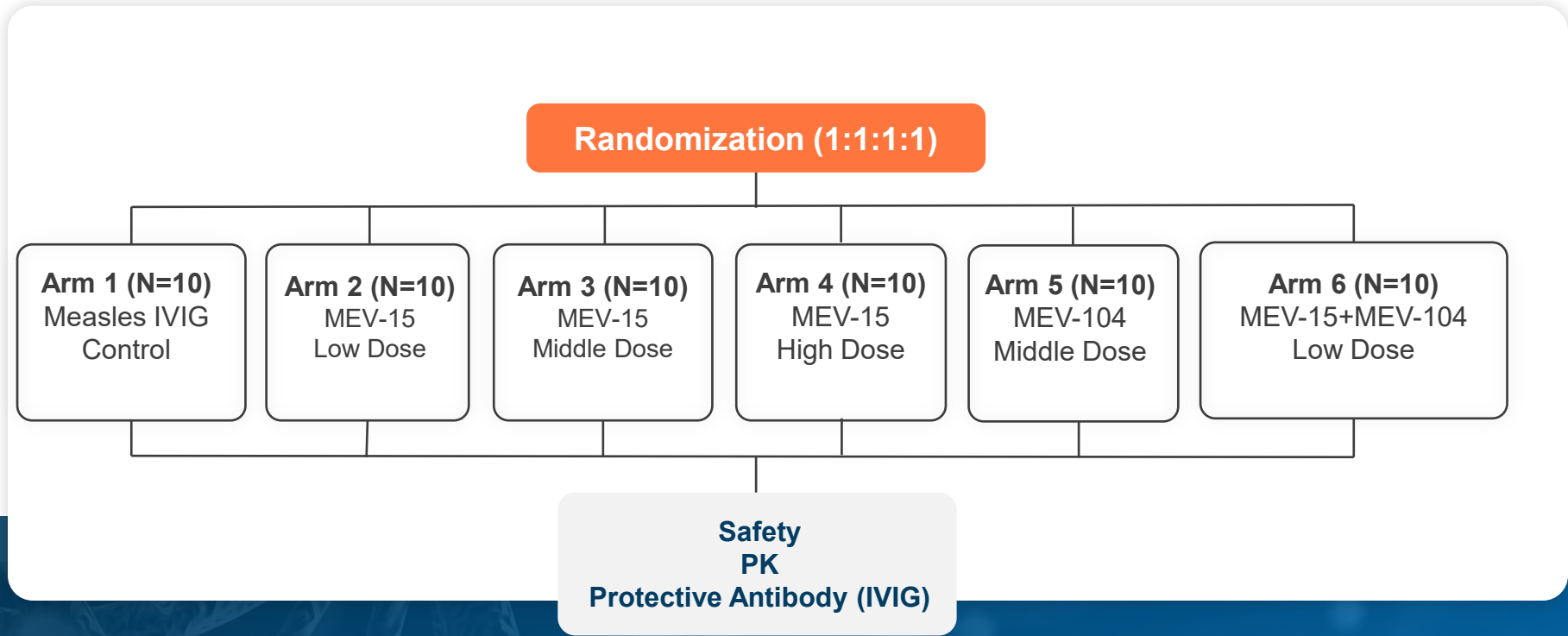
After 30 screens at any site

STUDY SIZE

N=60 · 6 Arms · 10/arm

Randomized 1:1:1:1:1:1

Phase One POC Design



➤ **Population:**
healthy adults

➤ **Objectives:**

- Assess safety/tolerability of measles mAb
- Assess PK and immunogenicity
- Assess percent of subjects with >120mIU/ml PRNT (recognized threshold)

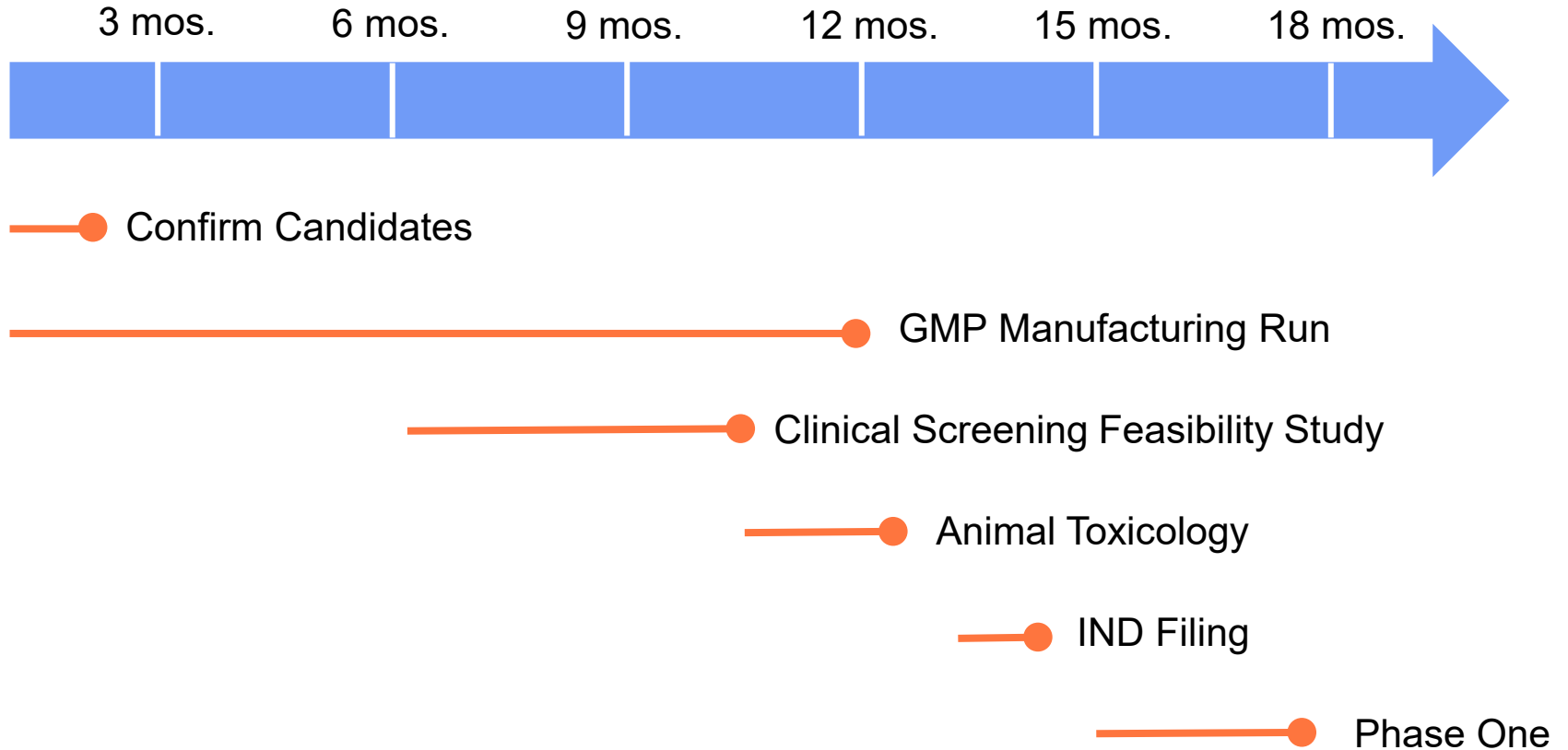
➤ **Follow-up:**
21 days PRNT Longterm F/U 9 mos.

➤ **Subjects:** non-immune measles antibody titers or unvaccinated individuals

➤ **Duration:**
28 days

➤ **Measles PRNT**

Timeline to Achieve POC



Saravir and Other Developers Recently Recognized

Other Developers:

- Invyvid
- Vanderbilt University
- Georgia State University

The Race to Find a Measles Treatment as Infections Surge

Vaccine was so effective the disease was considered eliminated in the U.S., but resurgence of outbreaks spurs need for drugs

By [Dominique Mosbergen](#) [Follow](#)

Aug. 8, 2025 at 5:30 am ET



Saravir Biopharma, which was launched in July in collaboration with Columbia University to develop a measles monoclonal antibody, is banking on a continuing decline in vaccination rates to further fuel a need for measles treatments—and in turn, more investor interest.

“This is just the beginning,” said Dr. Ron Moss, Saravir’s CEO. “I don’t see public-health officials in this country turning around and saying everyone will need to get vaccinated in the next couple of years.”

Moss said Saravir’s antibody treatment, which is designed to stop the measles virus from fusing with the body’s cells, could be tested in people as soon as next year.

Wall Street Journal, August 8, 2025

Measles Predicted Healthcare Burden

\$1.5 Billion Added in Annual Costs

\$41.1M

in Direct
Medical Costs

\$26.5M borne by **private insurers**, **\$5.4M** borne by **public insurance** programs, and **\$9.2M** borne by **uninsured individuals**. These costs do not include health care operational costs, such as isolation protocols and dedicated beds, staff exclusions, staff testing, hospital exposure protocols, etc.

\$947.0M

in Public Health
Outbreak Response
Costs

For public health, these costs manifest through **surveillance and case investigation**, **contact tracing**, **community outreach**, **risk communication**, and **vaccination clinics**, among other impacts. As modeled, these costs do not include health care costs related to outbreak operations. **If public health is unable to respond at the level required due to budget constraints and staffing limitations, the direct and indirect medical costs, and costs due to productivity loss and missed work may grow substantially as measles cases increase.**

\$510.4M

in Productivity & Missed
Work Costs

Economic costs associated with **lost productivity** in the workforce, for example, **missed work** due to having to care for sick children.

Common Health Coalition, 2026, Wells et. al. 2026

A Potential Multi-Billion-Dollar Market Opportunity

2024 developed countries addressable market estimate (U.S., E.U.)

11M

Pregnant women

7.3M

Newborns ≤ 12 mos. of age

26M

Immunocompromised

\$2,500

Treatment cost
(based on
COVID mAbs)

\$2,520

Beptelovimab AWP

\$2,520

Sotrovimab AWP

\$5.6B

**As small a market share
as 5% can result in a multi-
billion-dollar market**



**As measles becomes endemic in developed markets,
a multi-billion-dollar, post-exposure prophylaxis market
opportunity will become available**

Investment Required to Achieve Phase One Proof-of-concept

\$1.0 million

Screening study for low PRNT healthy normals

\$1.5 million

Cell line development

\$17.5 million

GMP humanized monoclonal antibodies

\$2 million

Toxicology studies

\$7 million

Phase One study

\$3 million

General administrative costs

Total required funding through phase 1 POC of \$32 M

A Growing Market Opportunity and a Novel Standard-of-Care Potential Treatment



**Measles is
on the rise**
and it is predicted
to increase as
vaccination rates
continue to decline



Therapeutic potential to both prevent
measles infections



Broad patent portfolio to protect technology and approach



Seasoned management team and expert advisors to guide
development through phase one and beyond



Seeking \$32 million funding to execute phase one study ,
cell line development, and company support



Potential for exit based on positive phase one study results