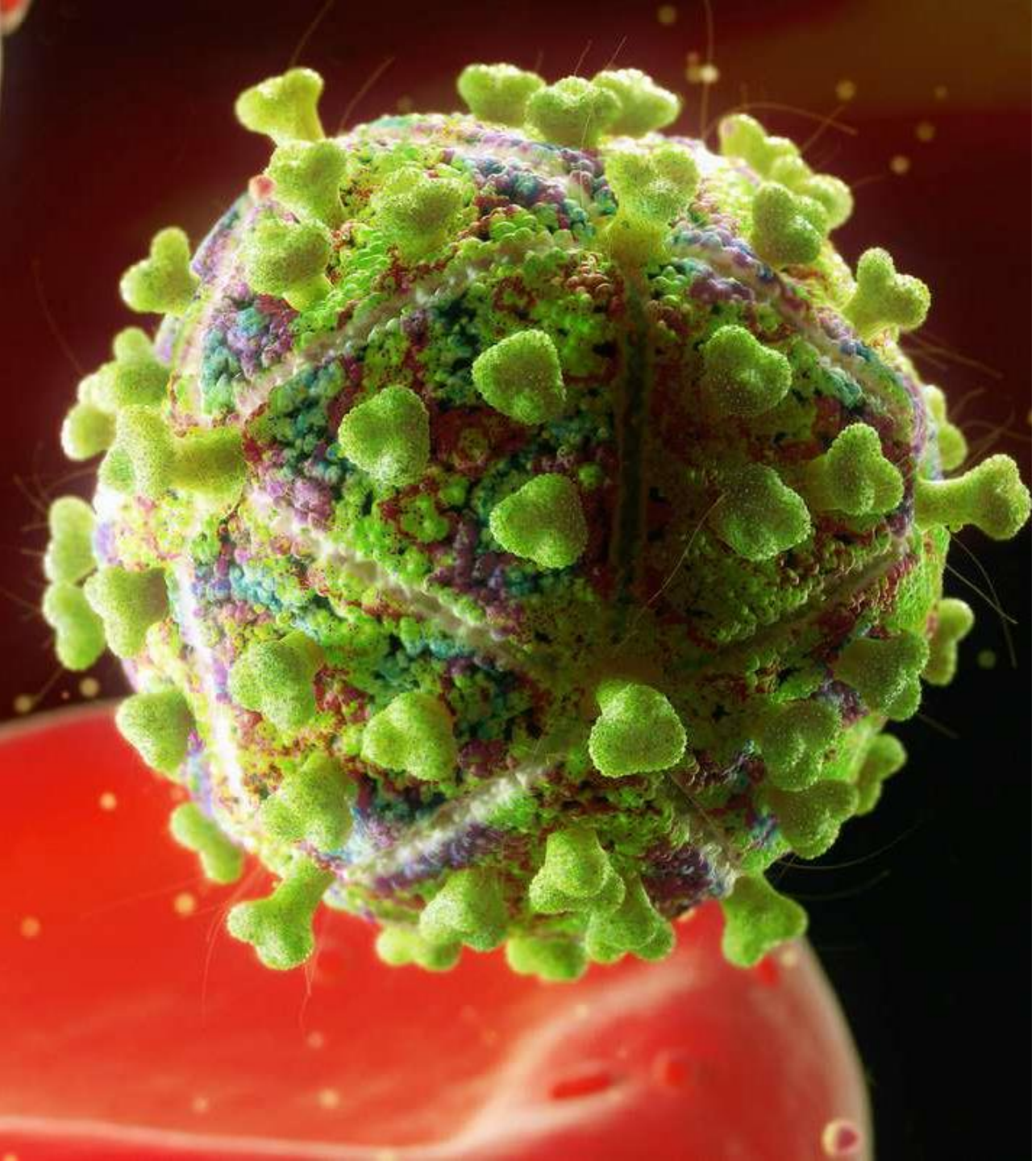
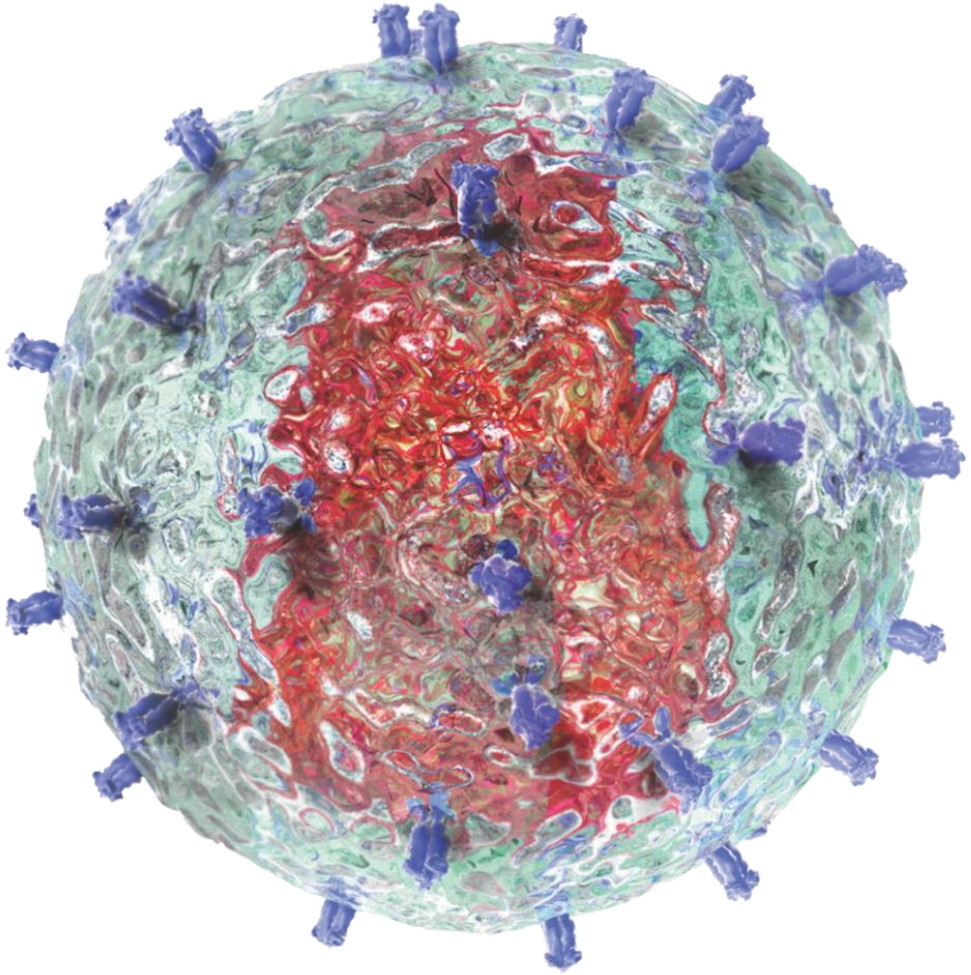


VACCINES FOR HIV: HISTORICAL PERSPECTIVES AND CURRENT CONCEPTS

Adam King Skrzynski, MD
William J. Holloway Community Program
ChristianaCare
December 18, 2025



AGENDA

-- Understand the historical background of HIV vaccine development and the basics of HIV epidemiology and immunology

-- Understand the challenges inherent to HIV vaccine development

-- Gain an overview of the wide range and types of HIV vaccine studies

-- Understand the next frontier for HIV vaccine development, and challenges inherent to modern times

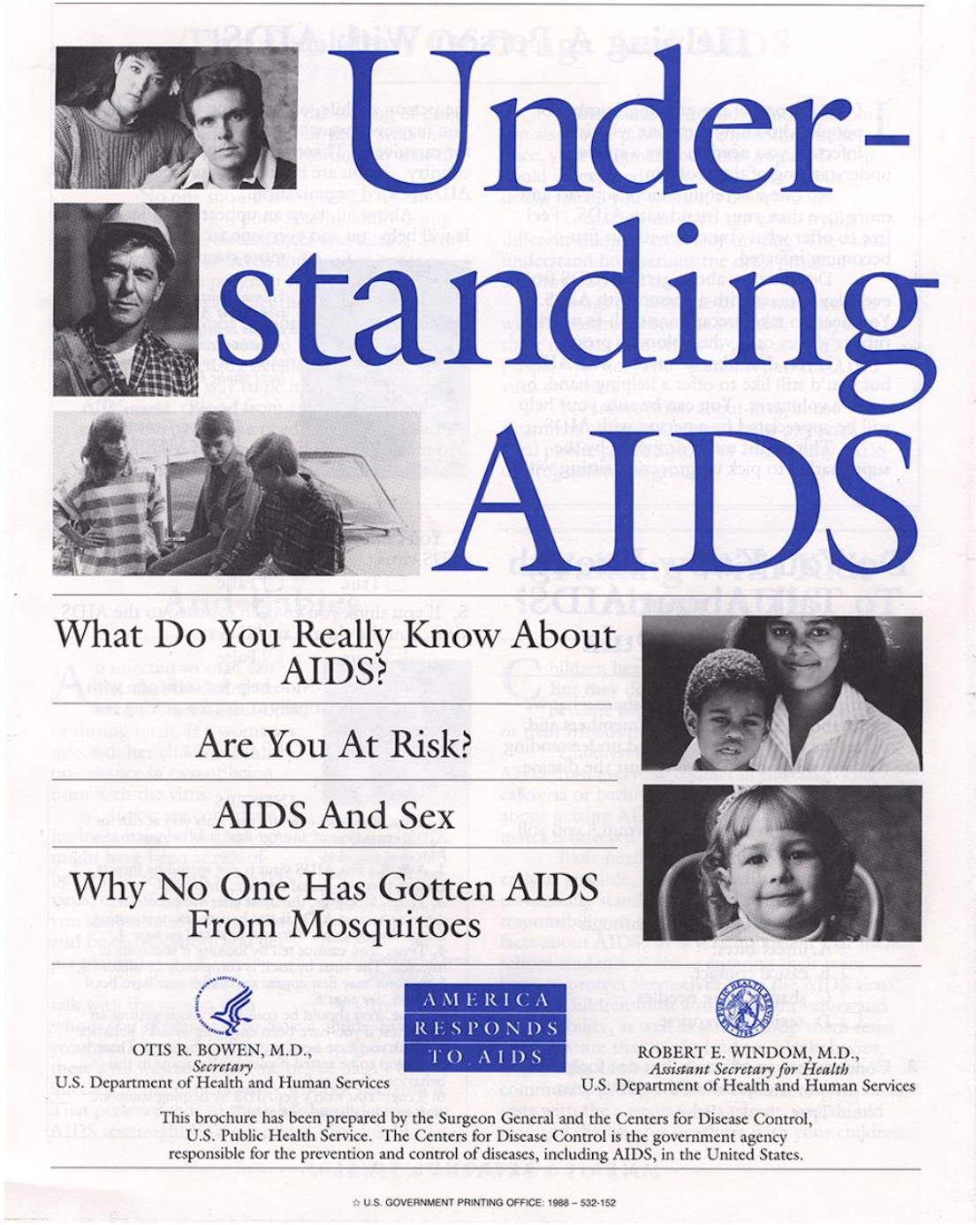
MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Pneumocystis Pneumonia — Los Angeles

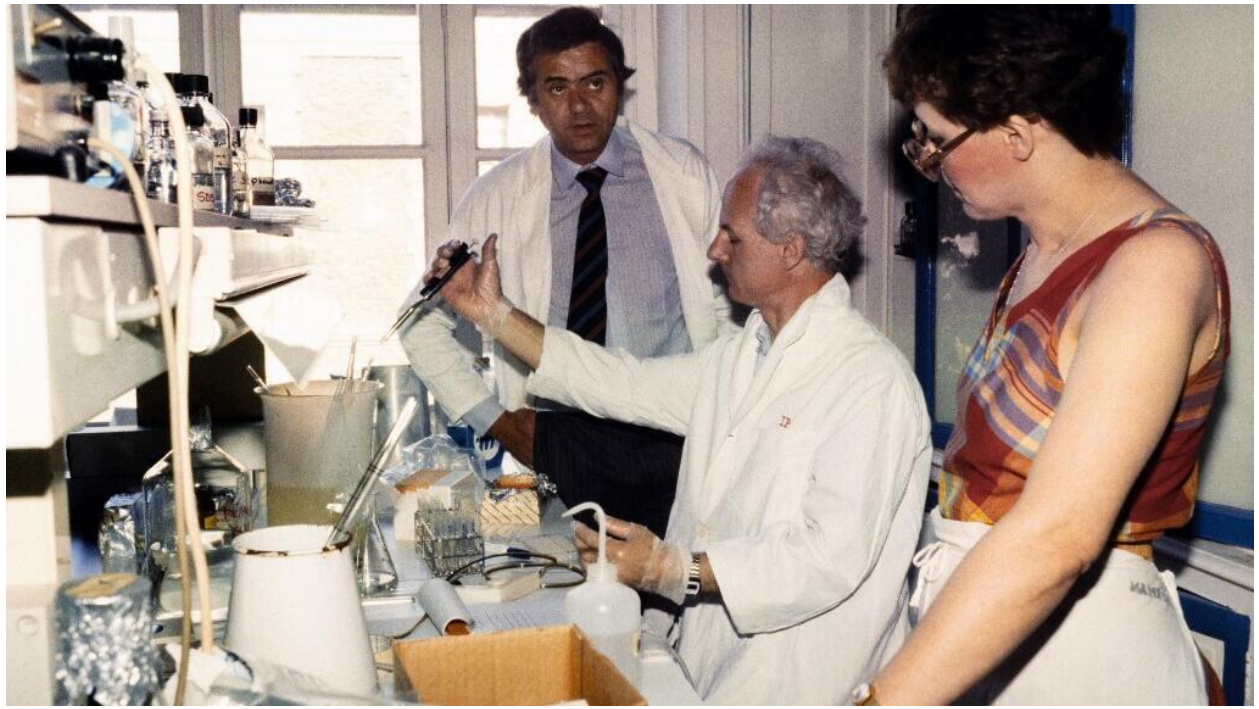
In the period October 1980-May 1981, 5 young men, all active homosexuals, were treated for biopsy-confirmed *Pneumocystis carinii* pneumonia at 3 different hospitals in Los Angeles, California. Two of the patients died. All 5 patients had laboratory-confirmed previous or current cytomegalovirus (CMV) infection and candidal mucosal

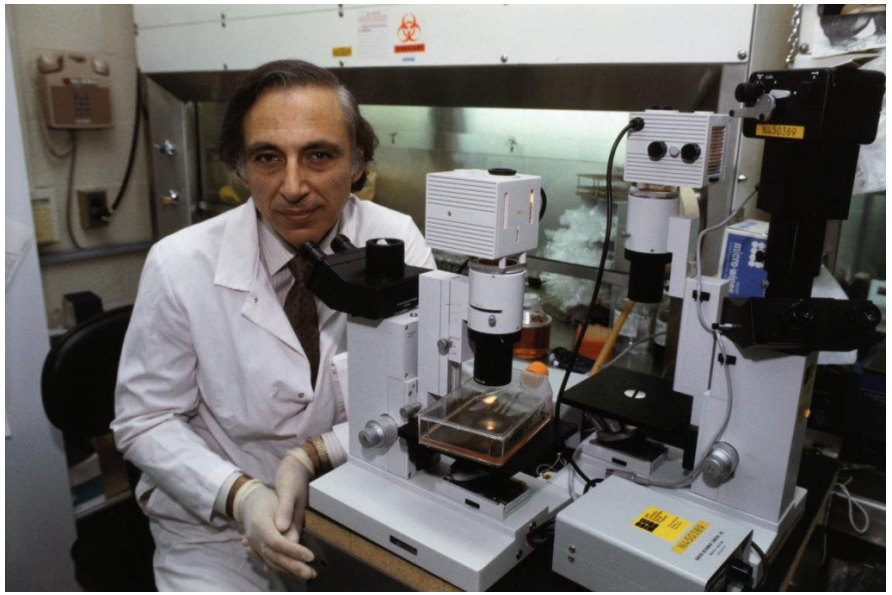


JULY 27, 1982: NEW DISEASE NAMED ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/

1983: PASTEUR INSTITUTE RESEARCHERS ISOLATE THE HUMAN IMMUNODEFICIENCY VIRUS (HIV)





https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/

Global HIV epidemic – incidence and mortality since 2010

2023

Globally

39.9 million

People living with HIV

+25%

Relative to 2010

1.3 million

People newly infected

- 39%

New infections/year relative to 2010

0.63 million

HIV-related deaths

- 51.5%

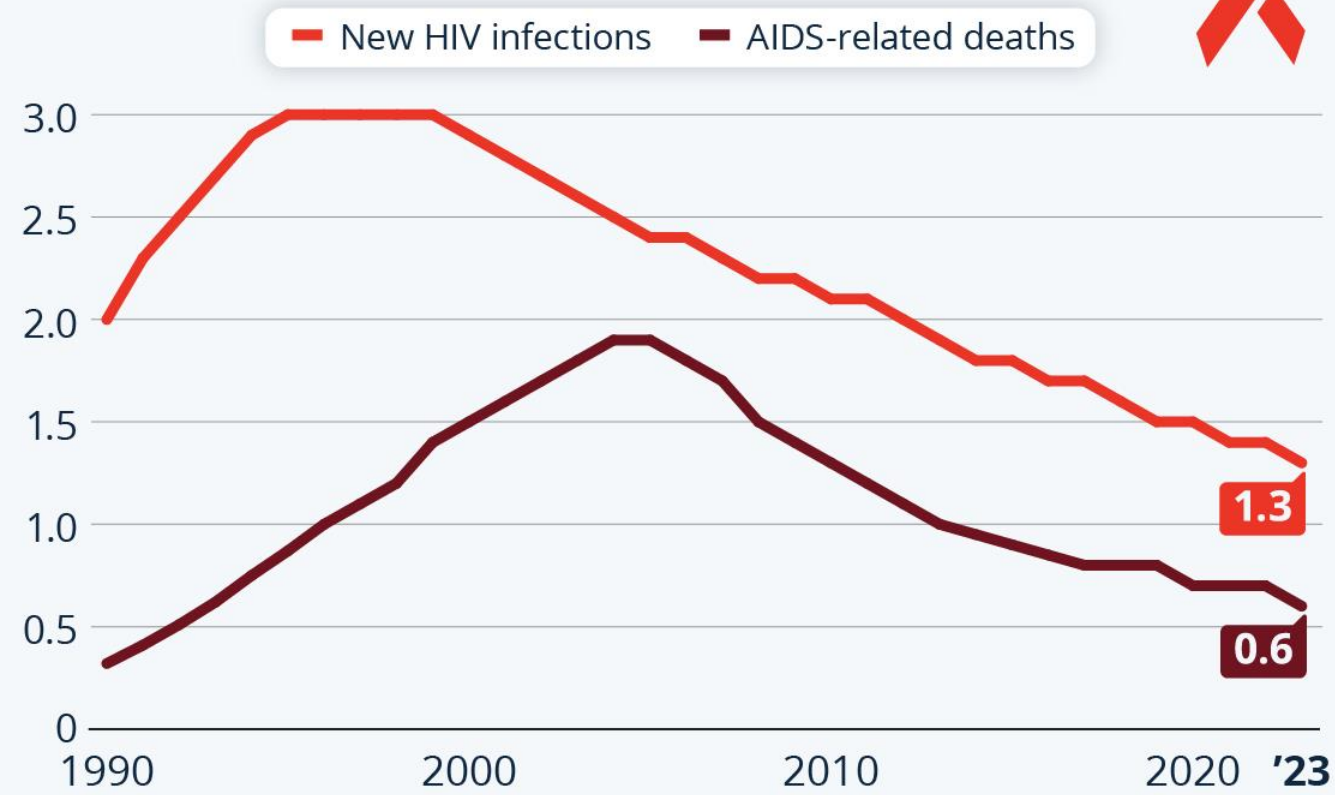
Deaths/year relative to 2010

Source: UNAIDS/WHO and HIV.gov

World Health Organization

New Annual HIV Infections Still Above the One-Million Mark

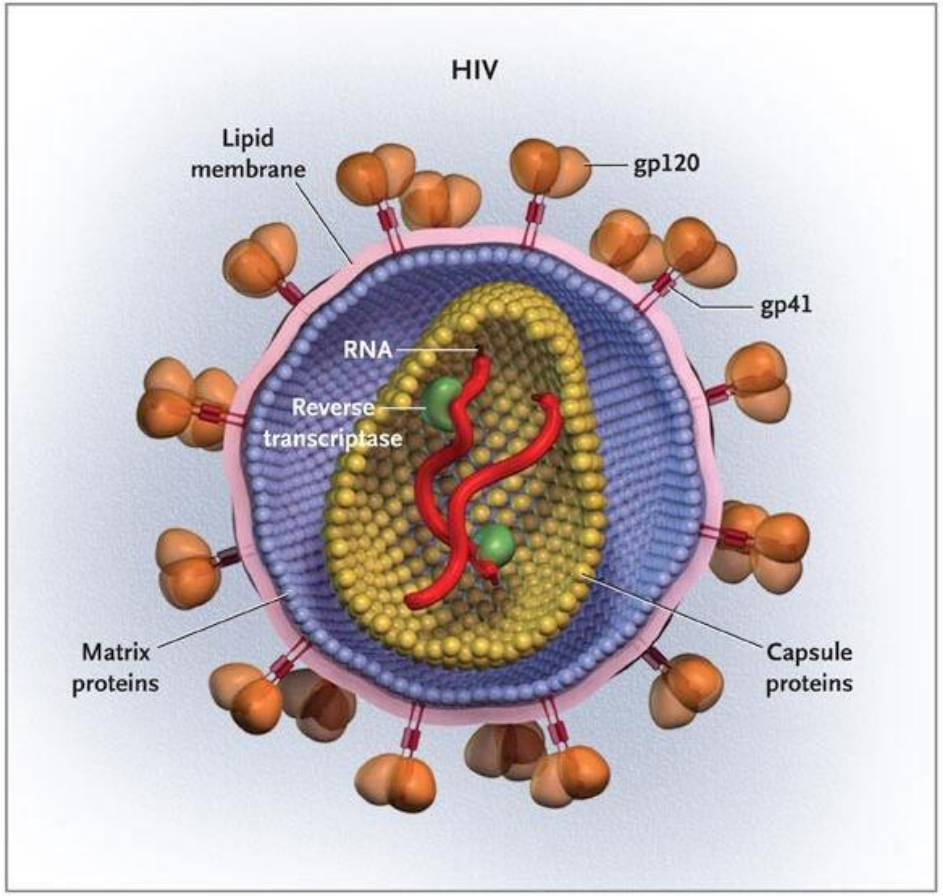
Estimated number of new global HIV infections and AIDS-related deaths (in millions)



Source: UNAIDS

https://www.unaids.org/en/resources/presscentre/featurestories/2021/july/20210721_2025-aids-targets

HIV VACCINE DEVELOPMENT IS CHALLENGING!

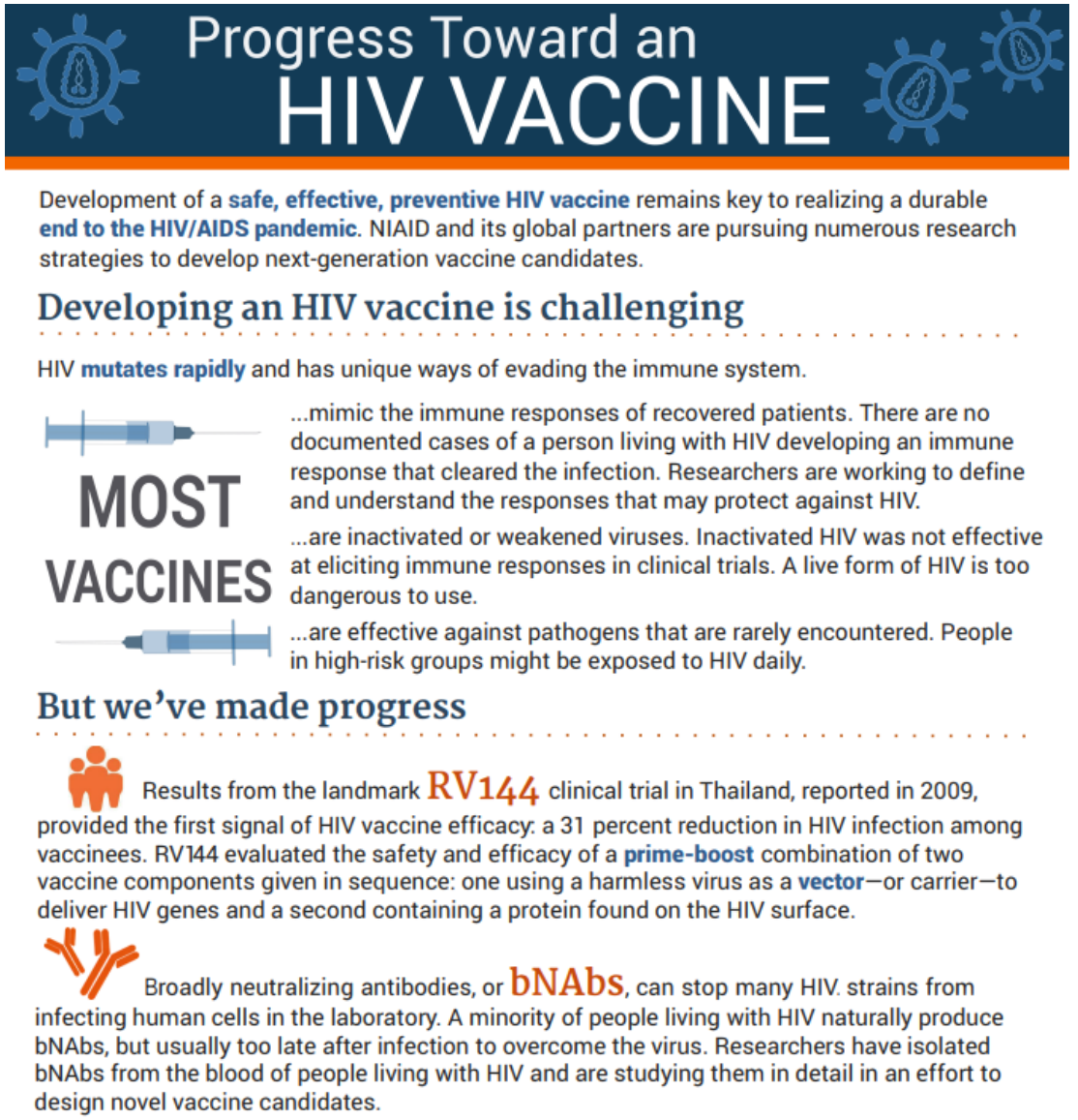


- Not readily recognized by immune system
- Hidden protein targets for neutralizing antibodies
- Huge genetic variation for vaccine to block
- No natural blueprint for protective immunity → <u>no one has cleared HIV on their own</u>
- Complex HIV biology: Must neutralize HIV before DNA inserted into cell nuclei
- Result: Traditional approaches have failed!

https://www.iavi.org/iavi-report/hiv-vaccine-research-funding-faces-an-uncertain-future/

CAN WE SUCCEED?

- HIV mutates rapidly
- An HIV vaccine will not be like others
- We cannot mimic the immune responses of recovered patients
- Inactivated HIV not effective at eliciting an immune response
- Live form of HIV is too dangerous to use
- Vaccines most effective against rare encountered pathogens, high-risk groups may be exposed daily



Progress Toward an HIV Vaccine

HIV LIFE CYCLE

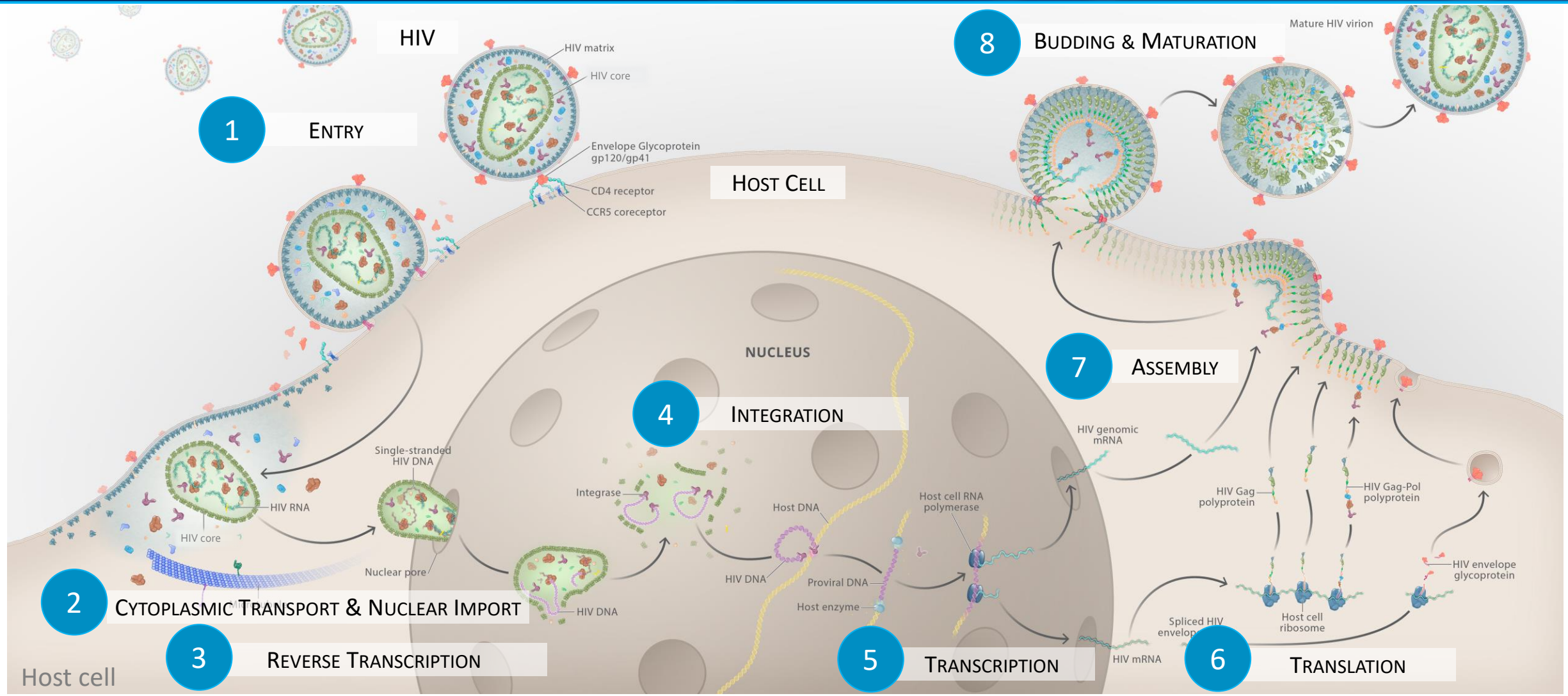
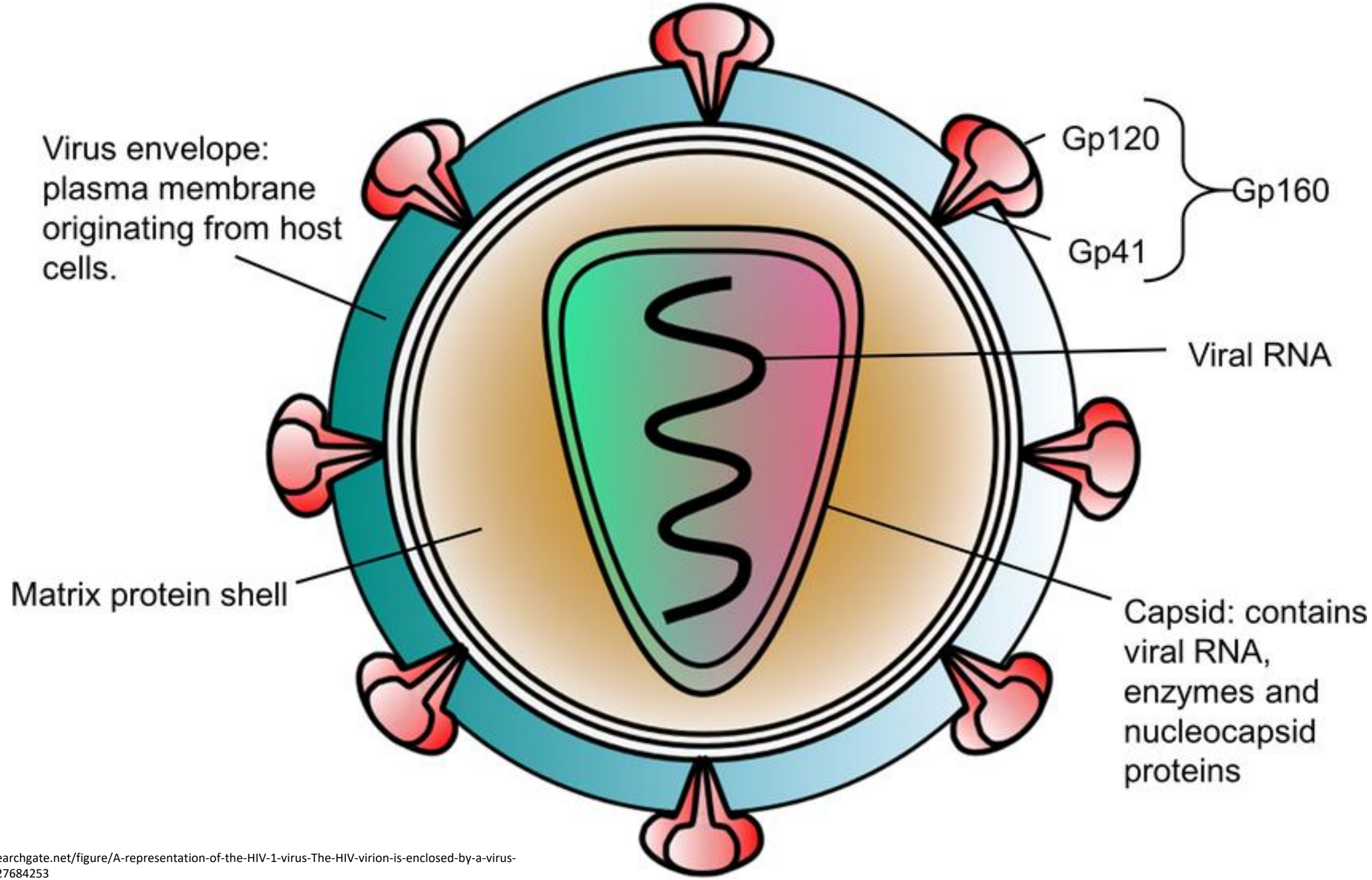


Illustration: *Cognition Studio, Inc.* and David H. Spach, MD

National HIV Curriculum



https://www.researchgate.net/figure/A-representation-of-the-HIV-1-virus-The-HIV-virion-is-enclosed-by-a-virus-envelope_fig2_327684253

ENTRY

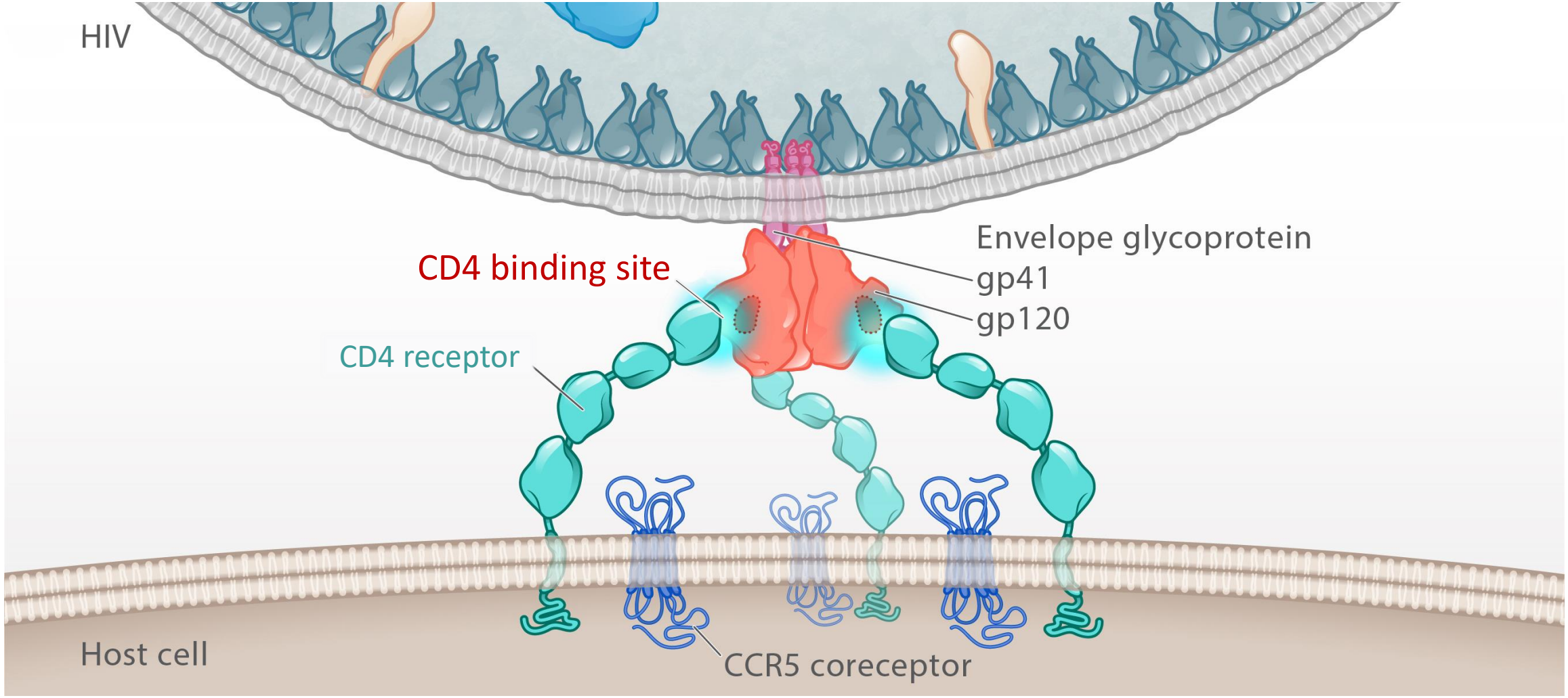


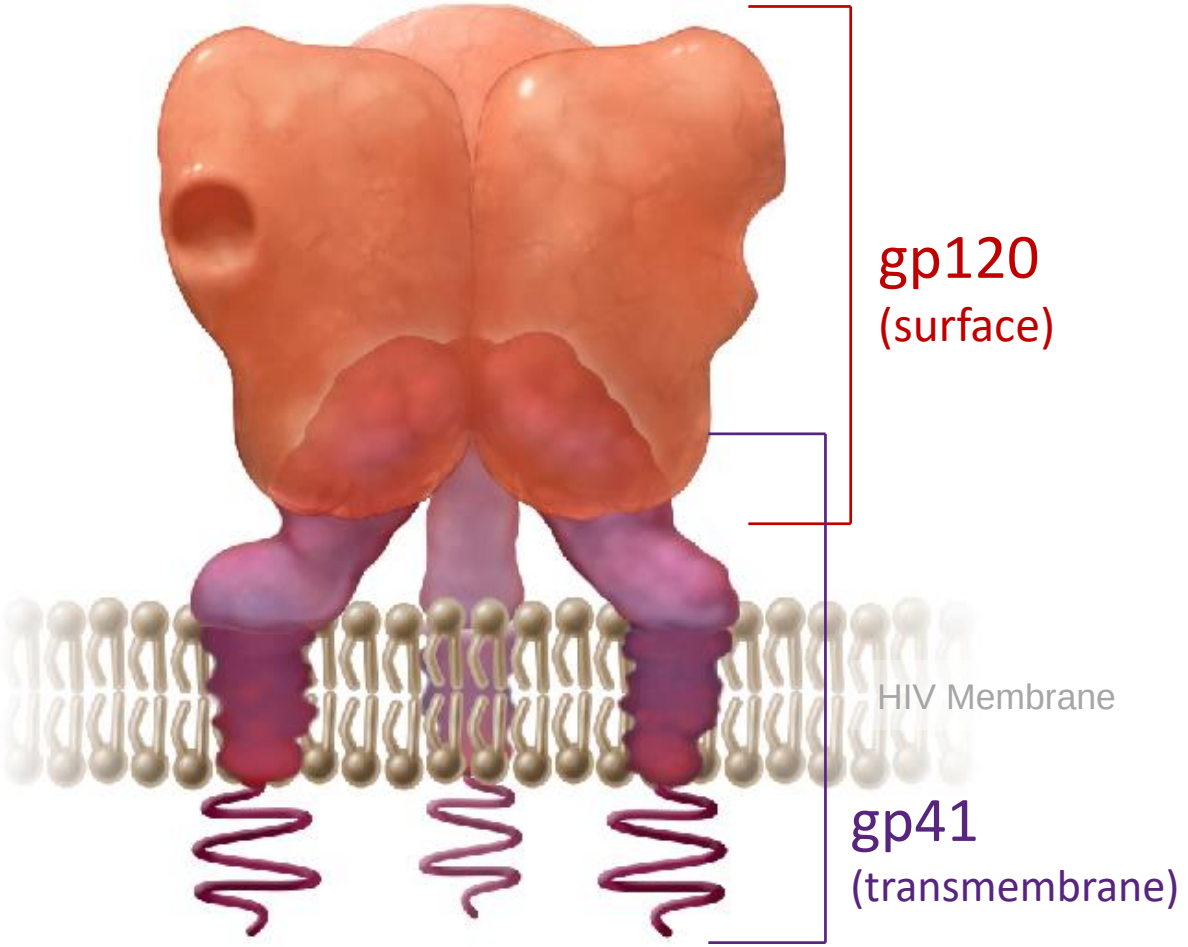
Illustration: *Cognition Studio, Inc.* and David H. Spach, MD

National HIV Curriculum

HIV ENVELOPE GLYCOPROTEINS: GP120 AND GP41 SUBUNITS

Illustration: *Cognition Studio, Inc.* and David H. Spach, MD

HIV Envelope Trimer



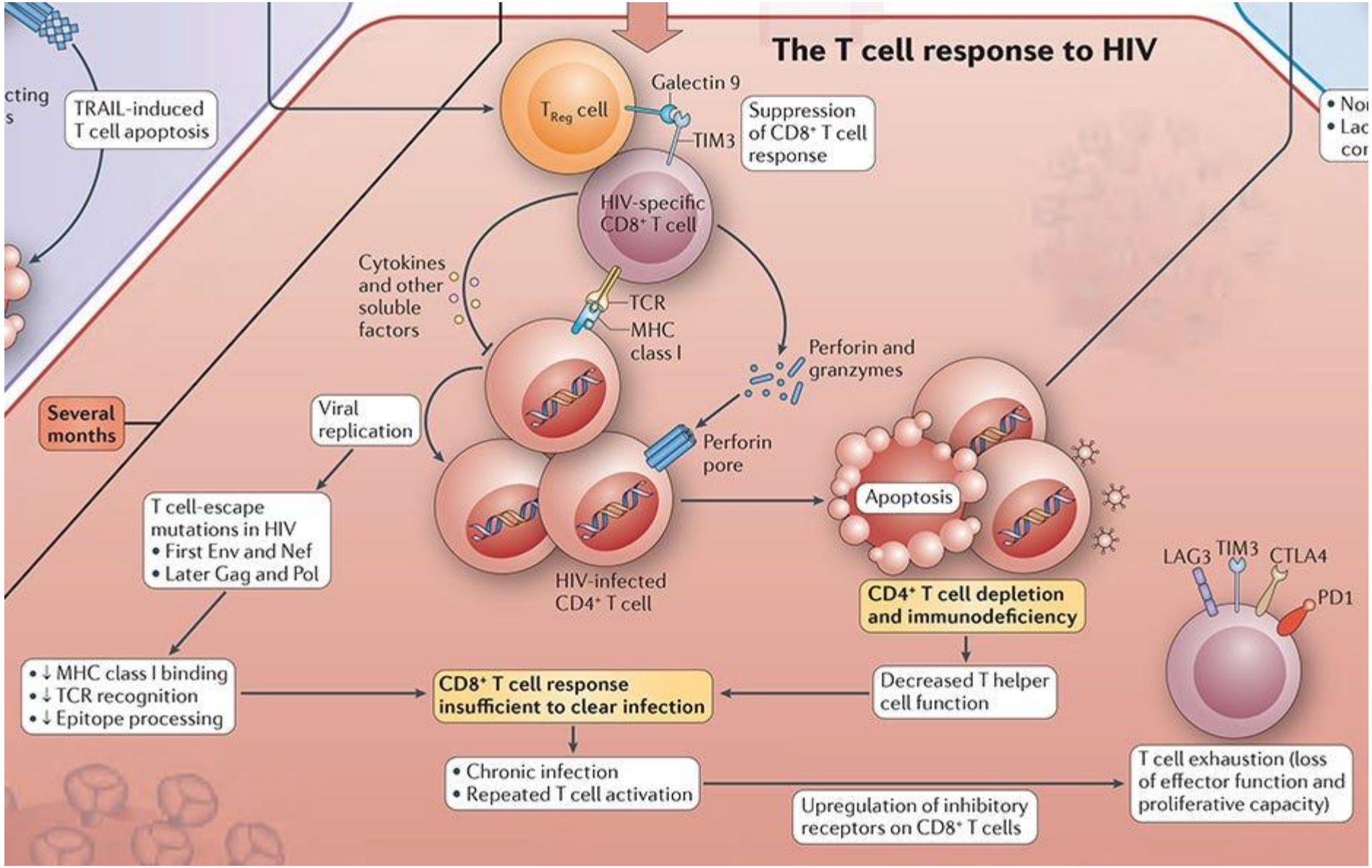
National HIV Curriculum

Trial	Years	Vaccine Components and Platforms	Adjuvants	Population and Phase	Outcome/Efficacy
VAX004	1998–2003	Bivalent gp120 (subtype B/B) protein subunit	Alum	MSM, High-risk Women; Phase 3	Vaccine efficacy (VE) 6% (95% CI −17 to 24)—not significant.
VAX003	1998–2003	Bivalent gp120 (subtype B/E) protein subunit	Alum	Injection drug users; Phase 3	VE 0% (95% CI −7 to 6). Highlighted limited protection from single protein immunogens.
STEP (HVTN 502)	2004–2007	Recombinant Ad5 vector encoding gag, pol, nef	None	MSM; Phase 2b	VE −18% overall; HR 1.4 (Ad5-seropositive uncircumcised subgroup). Indicates possible increased risk in some Ad5-seropositive individuals.
Phambili (HVTN 503)	2007	Recombinant Ad5 vector encoding gag, pol, nef	None	General; Phase 2b	Halted due to STEP results; Interim VE −69% (wide CI)
RV144	2003–2009	Canarypox vector (ALVAC) prime; gp120 protein boost (AIDSVAX B/E)	Alum	General community; Phase 3	VE 31.2% (95% CI 1.1–52.1) at 42 months, Demonstrated importance of prime-boost approach.
HVTN 505	2009–2013	DNA plasmid prime (Env, Gag, Pol, Nef) and Ad5 vector boost (Env, Gag-Pol)	None	MSM, Trans women; Phase 2b	VE −25%; $p = 0.44$. Underscored limits of DNA/Ad5 platform for HIV prevention.
HVTN 100	2015	ALVAC-HIV (subtype C Env, clade B Gag/Pol) prime; gp120 protein boost	MF59	General; Phase 1b	Immunogenic. 80% V1V2-IgG responders; GMT 1:−6300, but neutralization limited to Tier-1 strains
HVTN 702 (Uhambo)	2016–2020	ALVAC-HIV subtype C prime; gp120 subtype C protein boost	MF59	Adults at risk; Phase 2b/3	HR 1.02 (95% CI 0.81–1.30) → 0% VE. Illustrated challenges in translating RV144 efficacy to different populations and HIV strains.
Imbokodo (HVTN 705)	2017–2021	Ad26 vector mosaic Env, Gag-Pol prime; subtype C gp140 protein boost	Alum	High-risk women; Phase 2b	VE 14% (95% CI −22 to 40) months 7–24. Highlighted difficulties in inducing protective immune responses against diverse HIV variants.
Mosaico (HVTN 706)	2019–2023	Ad26 vector mosaic Env, Gag-Pol prime; mosaic gp140 protein boost	Aluminum Phosphate	MSM, Transgender; Phase 3	Futility stop; VE ≈ 0%. Further indicated limitations of mosaic immunogen approaches.
AMP Studies (HVTN 703/704)	2016–2021	Passive immunization with VRC01 bnAb	None	General; Phase 2b	Overall VE 0%; 75% VE vs. VRC01-sensitive viruses (IC_{80} < 1 µg/mL), demonstrating strain specificity and need for bnAb combinations.
IAVI G001	2021	Germline-targeting eOD-GT8 60mer nanoparticle immunogen	None	General; Phase 1	97% (35/36) generated VRC01-class precursors Represents a promising new strategy for inducing bnAbs.
HVTN 302	2022–Present	mRNA vaccines encoding different stabilized HIV Env antigens	Lipid nanoparti-cles	General; Phase 1	Phase 1 safety; early data show >90% binding-IgG seroconversion by day 28

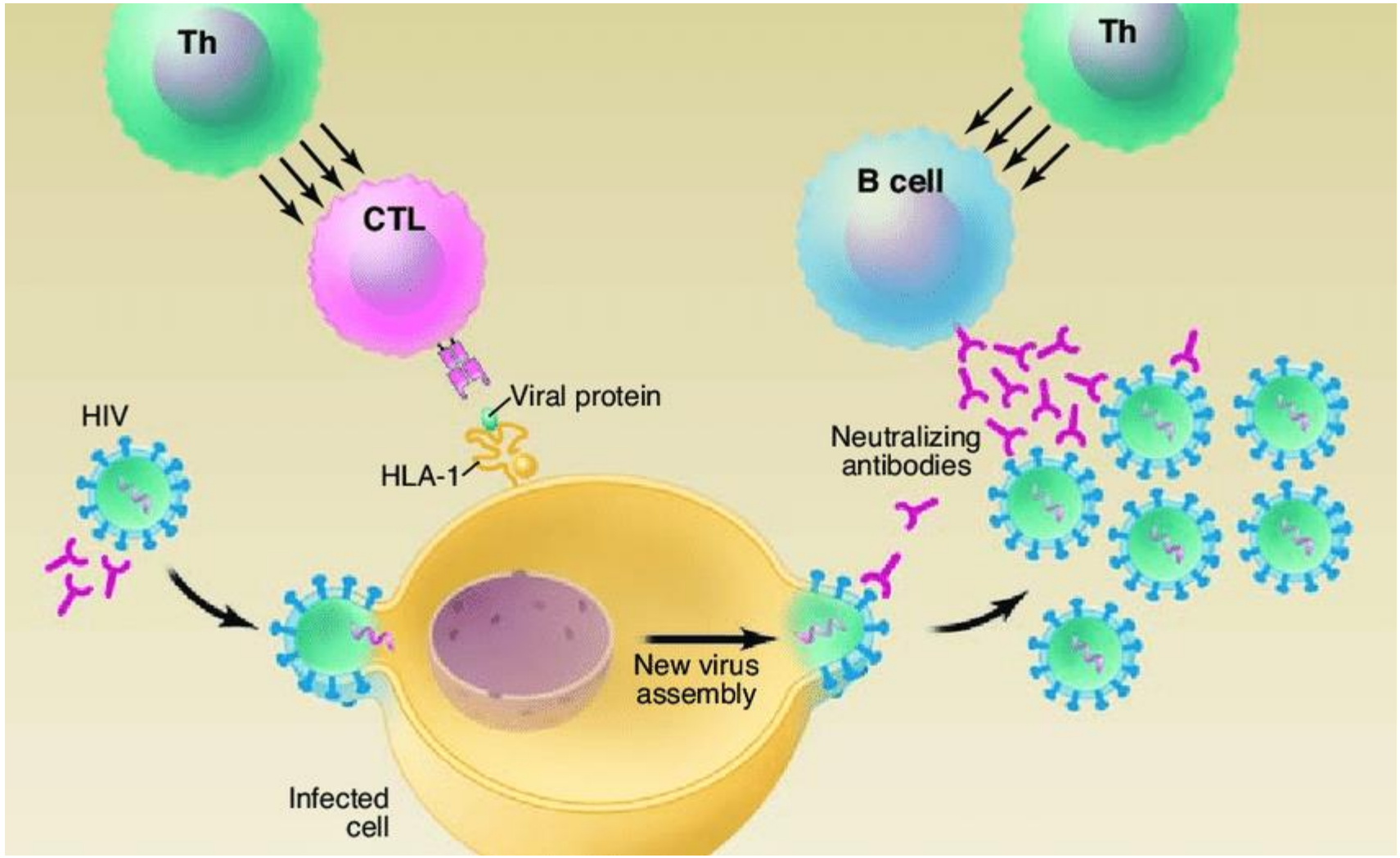
Shim I, Rogowski L, Venketaraman V. Progress and Recent Developments in HIV Vaccine Research. Vaccines (Basel). 2025 Jun 26;13(7):690. doi: 10.3390/vaccines13070690. PMID: 40733667; PMCID: PMC12298520.

Strategy/Platform	Key Antigen (s)	Primary Immune Goal	Representative Trials
Broadly neutralizing antibody (bnAb) induction	Conserved Env epitopes (CD4bs, V3-glycan, fusion peptide, MPER) presented as stabilized trimers, germline-targeting nanoparticles, or mRNA-encoded Env	Serum bnAb titers (ID50 $\geq$ 1:200 against global panel)	IAVI G001 (eOD-GT8), HVTN 302 (BG505 MD39 mRNA)
Non-neutralizing/Fc-effector antibodies	V1V2 loop, gp120 outer domain, gp41 HR2	ADCC, ADCP, complement; correlate seen in RV144	RV144 (ALVAC + gp120), HVTN 100/702
Polyfunctional $CD4^+/CD8^+$ T-cell vaccines	Conserved Gag, Pol, Nef, or HTI mosaics delivered by Ad26, MVA, DNA	Cytolytic T_RM, IFN-γ/IL-2 polyfunctionality	STEP, Phambili, Imbokodo, Mosaico
Mucosal-immunity approaches	Vaginal/nasal gp140, intranasal Env+TLR7/8, RhCMV vectors	Secretory IgA; genital/rectal T_RM	CN54 intravaginal Phase I; RhCMV/SIV macaque studies
Passive immunization (bnAb combinations)	VRC01, 10-1074, PGT121, tri-specific antibodies	Canarypox vector (ALVAC) prime; gp120 protein boost (AIDSVAX B/E)	AMP VRC01, CAPRISA-012 VRC07-523LS/CAP256V2LS
Vectored immunoprophylaxis	AAV-encoded bnAb genes (PG9, eCD4-Ig)	Immediate, strain-breadth neutralization (IC80 $\leq$ 1 µg/mL)	AAV-PG9 Phase 1 (Lancet HIV 2019)

Shim I, Rogowski L, Venketaraman V. Progress and Recent Developments in HIV Vaccine Research. Vaccines (Basel). 2025 Jun 26;13(7):690. doi: 10.3390/vaccines13070690. PMID: 40733667; PMCID: PMC12298520.



https://www.stemcell.com/immunology-features/immune-response-to-hiv



https://www.researchgate.net/figure/Adaptive-immune-responses-in-HIV-infection-HIV-infection-of-cells-can-be-prevented-by_fig1_5383156

DHHS SECRETARY MARGARET HECKLER, 1984: “AN AIDS VACCINE WILL BE READY FOR TESTING IN 2 YEARS”

Margaret Heckler, Lawmaker and Reagan Health Secretary, Dies at 87 - The New York Times
History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases

IN THE BEGINNING…

- Private sector enterprise
- MicroGeneSys → VaxSyn (gp160 envelope protein preventive vaccine)
- Dr. Jonas Salk → Remmune (“whole-killed,” therapeutic vaccine)
- Both progressed to Phase 2 trials, but by mid-1990s were seen to have failed

Shapiro SZ. HIV Vaccine Development: 35 Years of Experimenting in the Funding of Biomedical Research. Viruses. 2020 Dec 19;12(12):1469. doi: 10.3390/v12121469. PMID: 33352755; PMCID: PMC7767134.

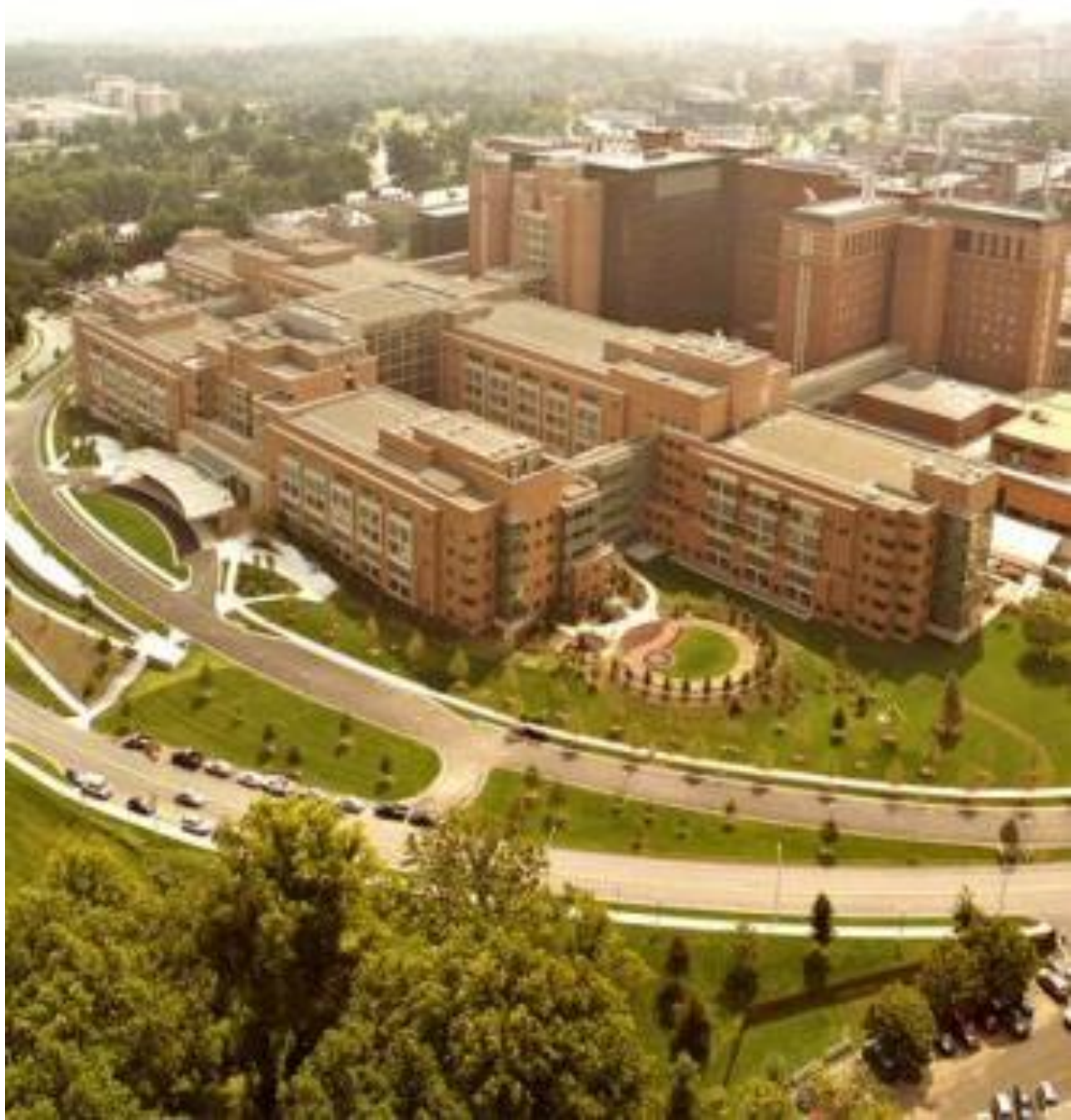
LATE 1980S: SHIFT FROM INDUSTRY→ ACADEMIA

- NIH declined further funding for simple subunit protein vaccines by mid-1990s
- Standard industry approach doubted (envelope protein, whole-killed virus)
- NIAID involvement begins
- Comprehensive funding: National Cooperative Vaccine Development Groups for AIDS

Shapiro SZ. HIV Vaccine Development: 35 Years of Experimenting in the Funding of Biomedical Research. Viruses. 20
Dec 19;12(12):1469. doi: 10.3390/v12121469. PMID: 33352755; PMCID: PMC7767134.

1987: FIRST HIV VACCINE TRIAL OPENED AT NIH IN BETHESDA, MARYLAND: 138 HEALTHY, HIV-NEGATIVE VOLUNTEERS

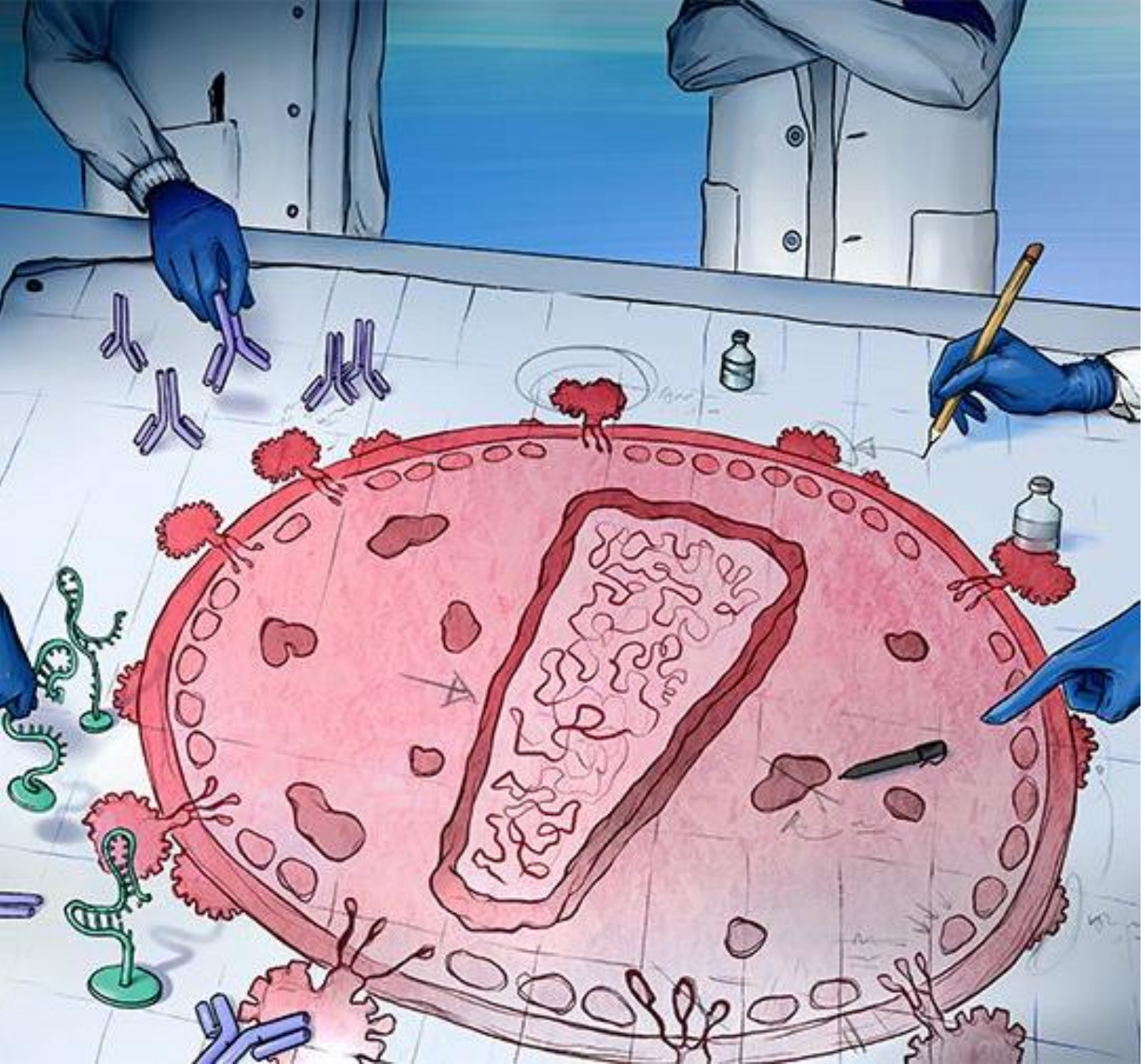
- MICROGENESYS GP160 VACCINE
- MOSTLY MEN WHO HAVE SEX WITH MEN



History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases
https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/

1988: NIAID AIDS VACCINE EVALUATION GROUP (AVEG), FIRST U.S. COOPERATIVE HIV VACCINE CLINICAL TRIALS GROUP

History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases

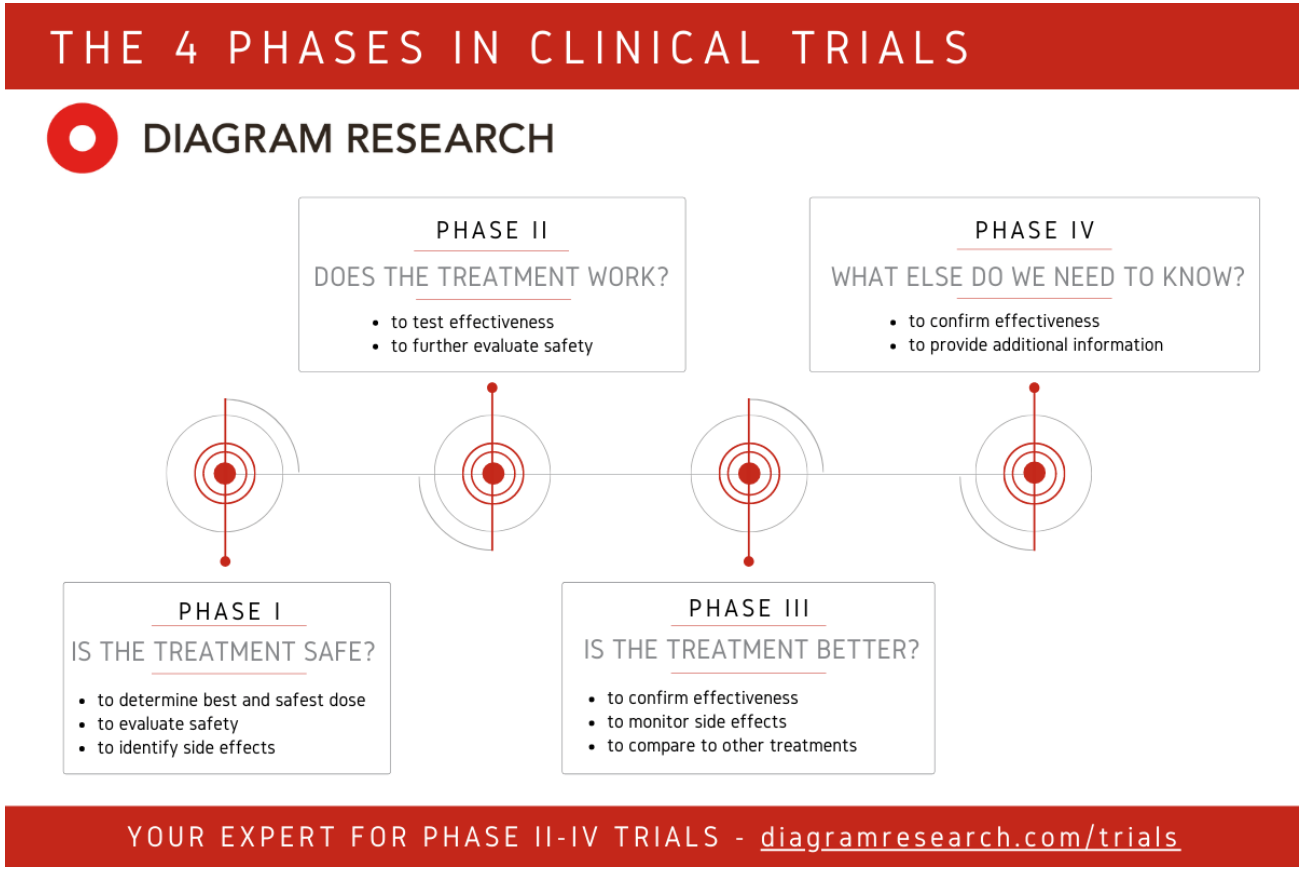


AVEG: EXAMPLE OF A COMPREHENSIVE AND COLLABORATIVE APPROACH

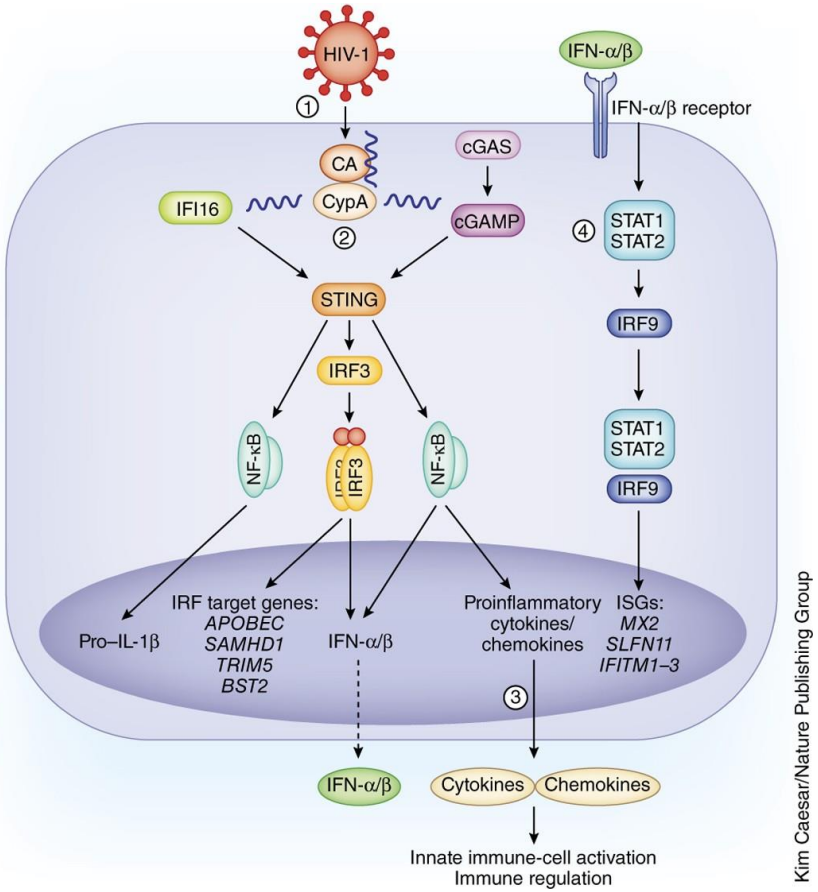
- AIDS vaccine evaluation units
- Data coordinating and analysis center
- Central immunology laboratory
- Mucosal immunology laboratory
- Viral immunology laboratory

Shapiro SZ. HIV Vaccine Development: 35 Years of Experimenting in the Funding of Biomedical Research. Viruses. 20
Dec 19;12(12):1469. doi: 10.3390/v12121469. PMID: 33352755; PMCID: PMC7767134.

1992: FIRST PHASE 2 HIV VACCINE CLINICAL TRIAL: SAFETY AND IMMUNOGENICITY



History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases
Phases In Clinical Trials Explained by CRO Diagram Research



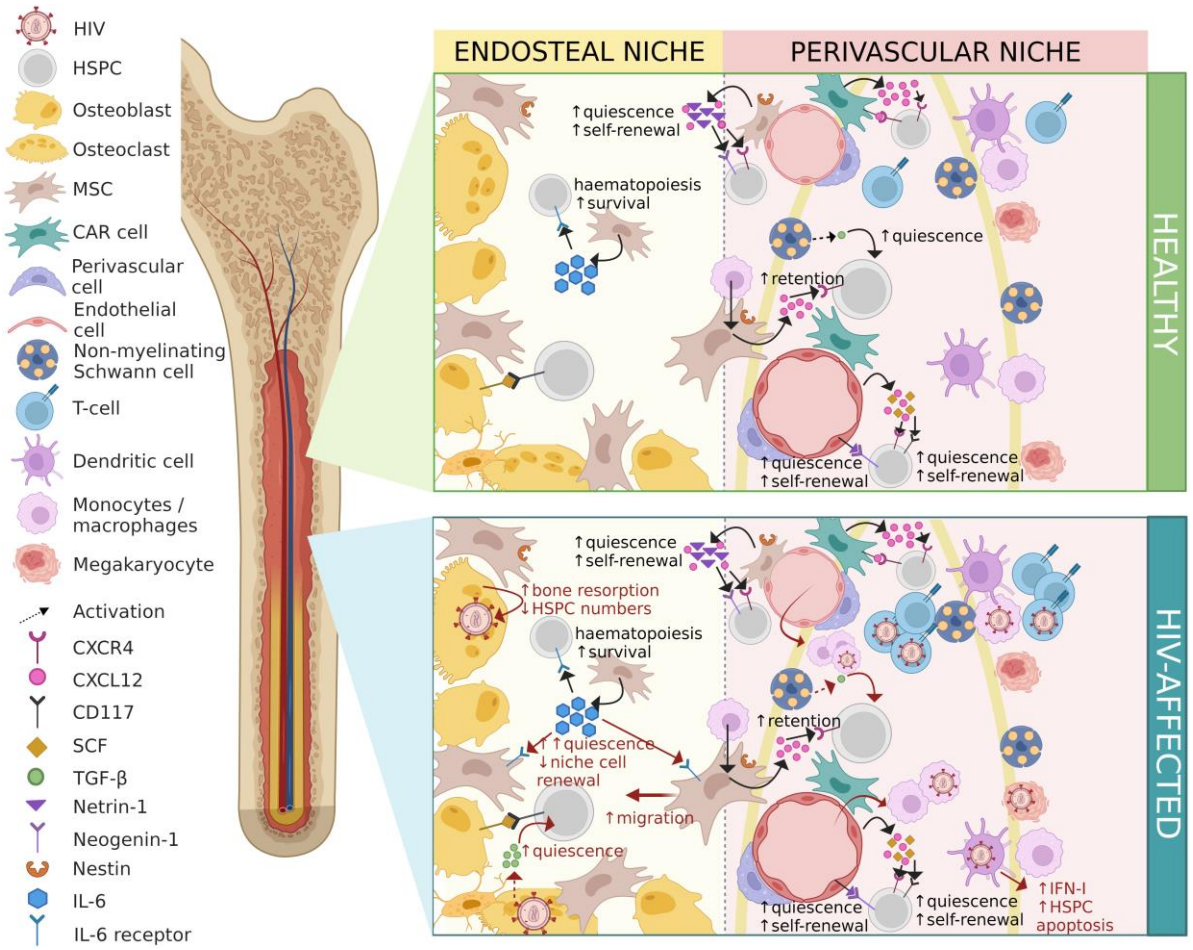
Kim Caesar/Nature Publishing Group

SLOW PROGRESS

—

- NIH Levine Committee (1996)
- "Back to basics" → allocate funding to immunology research, engage immunologists
- Enlist expert academics (genesis of HIV Vaccines Trials Network)
- Shift from "mission oriented" to iterative approach: Multiple successive trials → better understanding and efficacy
- HIV Vaccine Research and Design program (HIVRAD): Basic research funding continues to this day

Shapiro SZ. HIV Vaccine Development: 35 Years of Experimenting in the Funding of Biomedical Research. Viruses. 202
Dec 19;12(12):1469. doi: 10.3390/v12121469. PMID: 33352755; PMCID: PMC7767134.



1994: RESEARCHERS ISOLATE FIRST HUMAN ANTIBODY THAT NEUTRALIZES 75% OF HIV STRAINS

- FROM BONE MARROW OF ASYMPTOMATIC HIV-INFECTED MAN
- FIRST BROADLY NEUTRALIZING ANTIBODY (BNAB)

https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/

1996: INTERNATIONAL AIDS VACCINE INITIATIVE (IAVI)

- The Rockefeller Foundation
- Nonprofit international initiative
- $128 million in revenue
- Staff in 7 countries
- Labs in New Jersey, California, and India

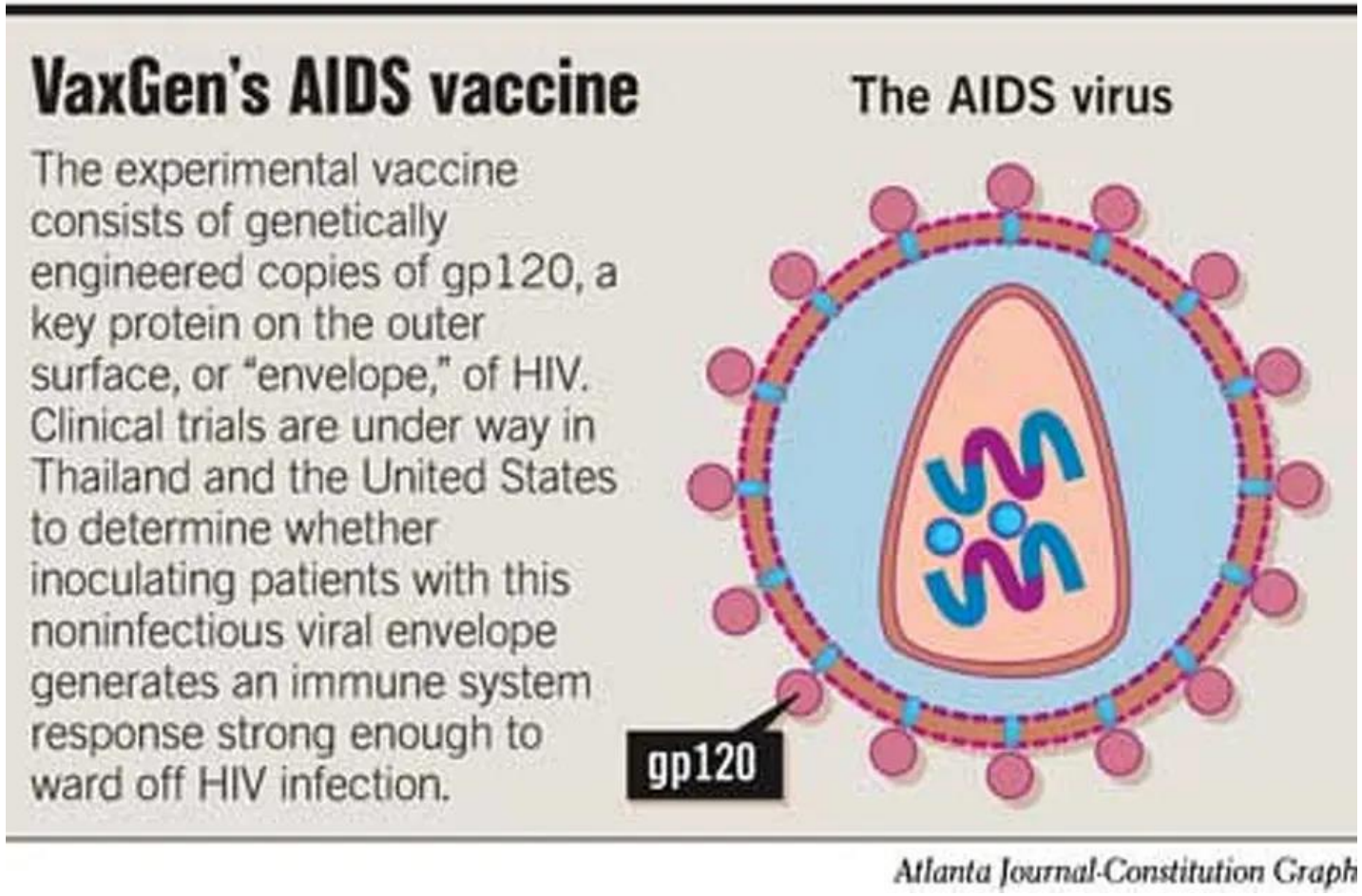
https://www.iavi.org/about-iavi/

MAY 18, 1997: PRESIDENT BILL CLINTON ANNOUNCES GOAL TO DEVELOP AN AIDS VACCINE WITHIN A DECADE, WORLD AIDS VACCINE DAY

https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/

1998: FIRST LARGE-SCALE HIV VACCINE TRIAL BEGAN (VAXGEN PHASE 3 TRIAL OF AIDSVAX, NORTH AMERICA AND NETHERLANDS)

- GP120 USED AS ANTIGEN



History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases

AIDS vaccine developer VaxGen hedging bets with new venture

Shim I, Rogowski L, Venketaraman V. Progress and Recent Developments in HIV Vaccine Research. Vaccines (Basel). 2025 Jun 26;13(7):690. doi: 10.3390/vaccines13070690. PMID: 40733667; PMCID: PMC12298520.

1999: FIRST AFRICAN PREVENTIVE HIV VACCINE TRIAL (NIAID, UGANDA), FIRST LARGE-SCALE HIV VACCINE TRIAL IN DEVELOPING COUNTRY (THAILAND)

History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases

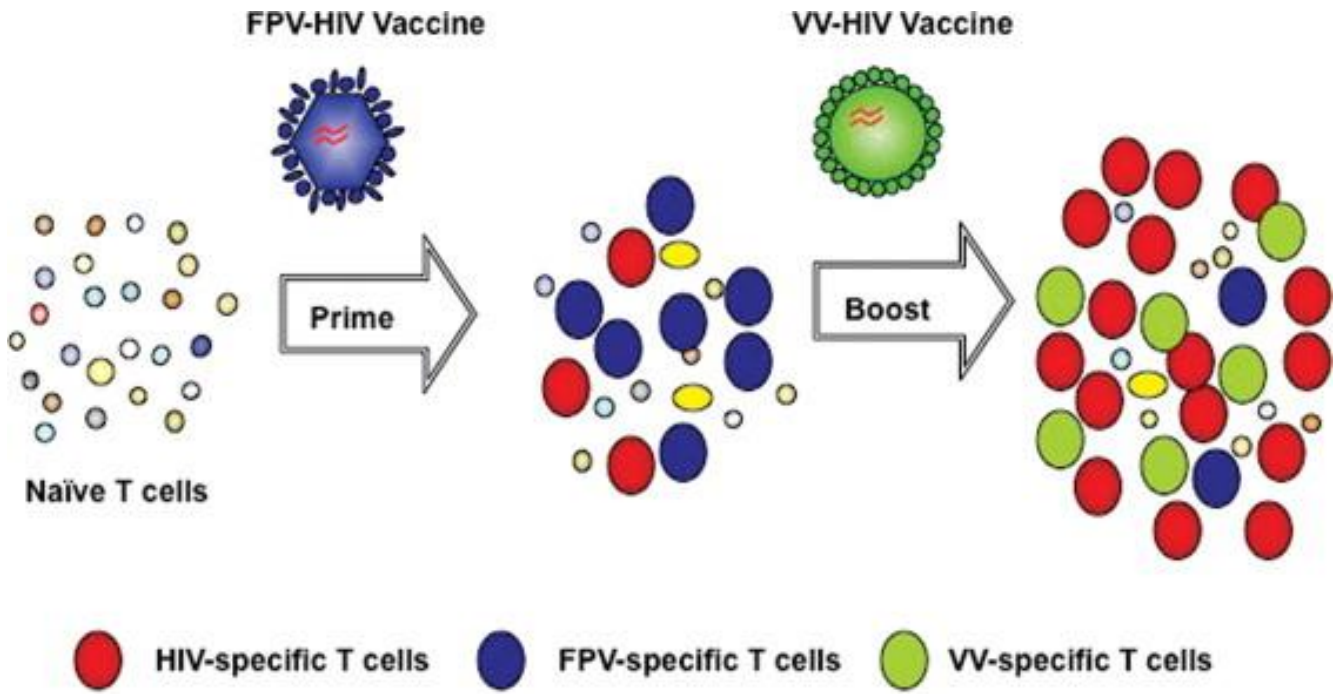
1999: VACCINE RESEARCH CENTER (VRC) ESTABLISHED ON NIH CAMPUS, FOCUSED ON HIV AND OTHER PATHOGENS

https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/

2000: NIAID FORMS THE HIV VACCINE TRIALS NETWORK (HVTN), 25 SITES IN THE U.S., AFRICA, ASIA, SOUTH AMERICA, AND THE CARIBBEAN

History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases

2003: U.S. AND THAI GOVERNMENTS JOINTLY INITIATE RV144, PHASE 3 TRIAL EVALUATING “PRIME BOOST”

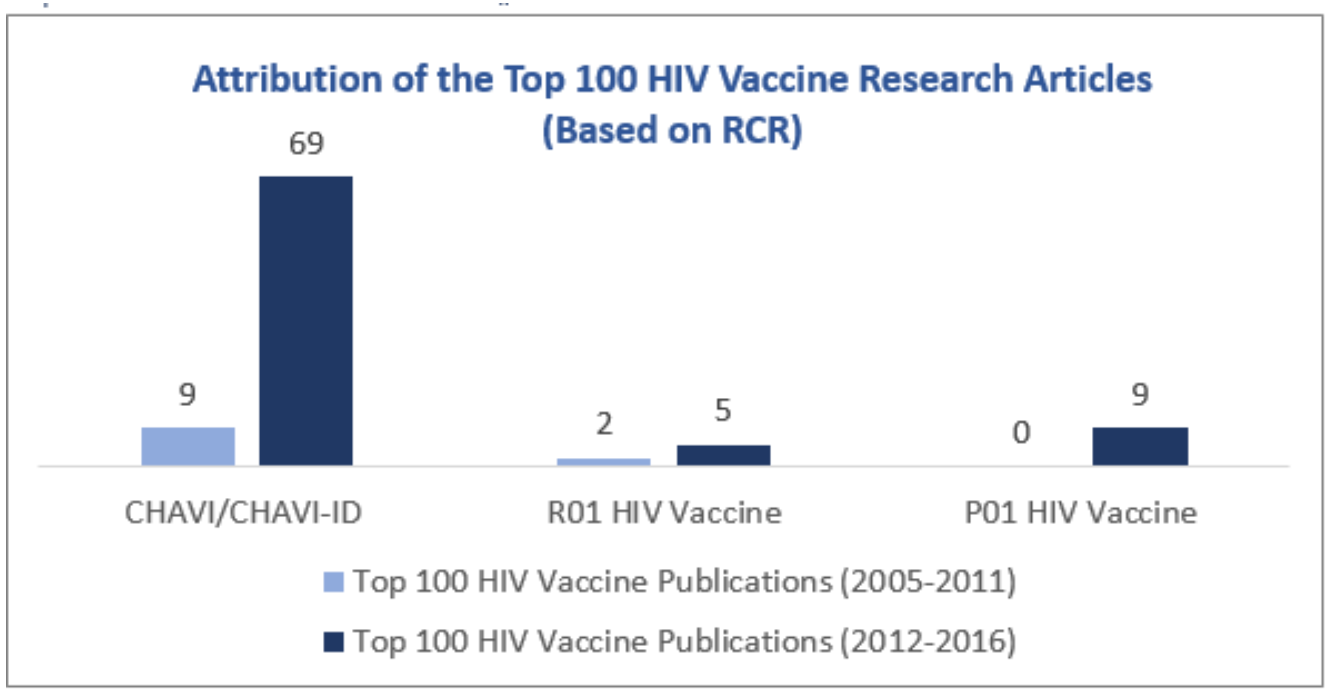


History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases
Prime-Boost Vaccination: Impact on the HIV-1 Vaccine Field - ScienceDirect

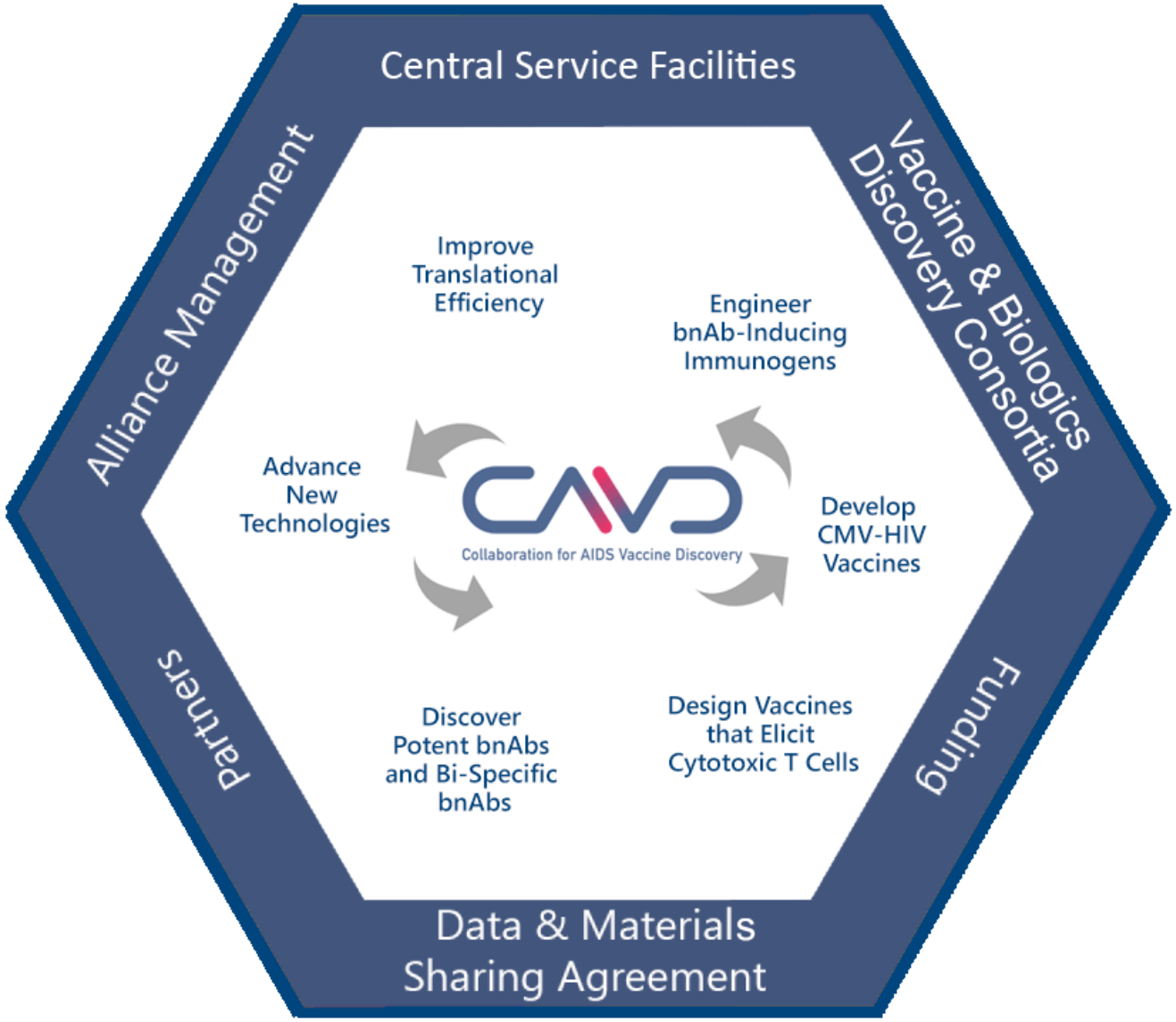
2004: BOTH VAXGEN CANDIDATES FAILED TO CONFER PROTECTION IN PHASE 3 TRIALS

2005: NIAID ANNOUNCES $300 MILLION FOR CENTER FOR HIV/AIDS VACCINE IMMUNOLOGY (CHAVI)

CHAVI-ID
Duke Center for HIV/AIDS Vaccine Immunology and Immunogen Discovery

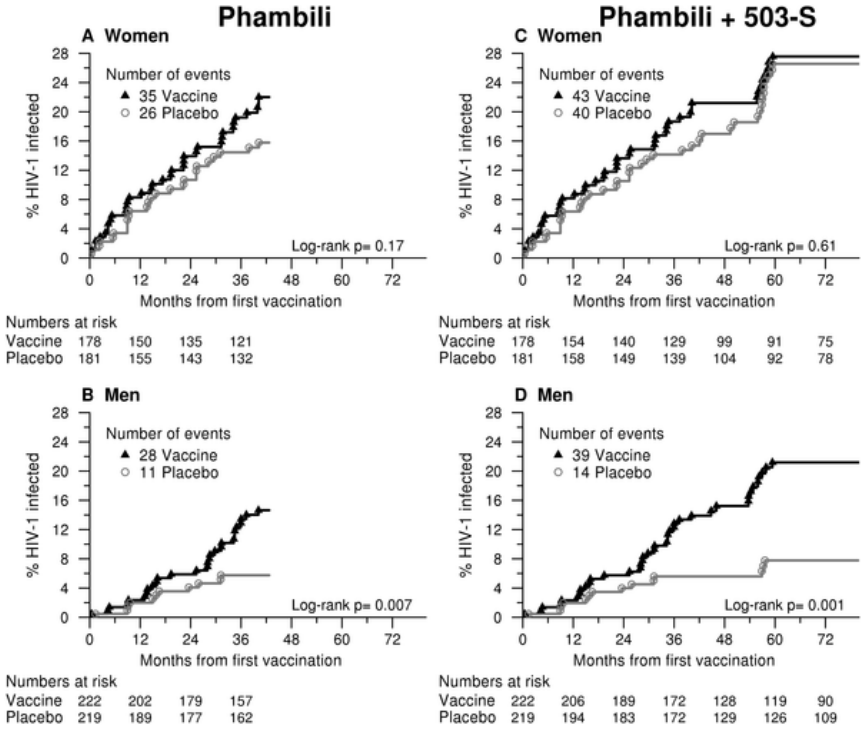


https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/
https://www.niaid.nih.gov/about/assessment-chavi-id



2006: BILL AND MELINDA GATES FOUNDATION AWARDS $287 MILLION TO ESTABLISH THE COLLABORATION FOR AIDS VACCINE DISCOVERY (CAVD)

https://www.iavi.org/iavi-report/40-years-of-aids-vaccine-research/
https://www.cavd.org/



2007: NIAID HALTED PHASE 2 STEP AND PHAMBILI STUDIES DUE TO SAFETY CONCERNS

- Shift from antibody-inducing simple subunit envelope protein vaccine
- Phase 2B efficacy trials of CD8 CTL-inducing HIV vaccine
- Failed to protect against infection
- May have increased the risk of infection in some subgroups
- Consensus: “Overreliance” on T-cell approach, probably not adequate

History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases
Shapiro SZ. HIV Vaccine Development: 35 Years of Experimenting in the Funding of Biomedical Research. Viruses. 2020 Dec 19;12(12):1469. doi: 10.3390/v12121469. PMID: 33352755; PMCID: PMC7767134.
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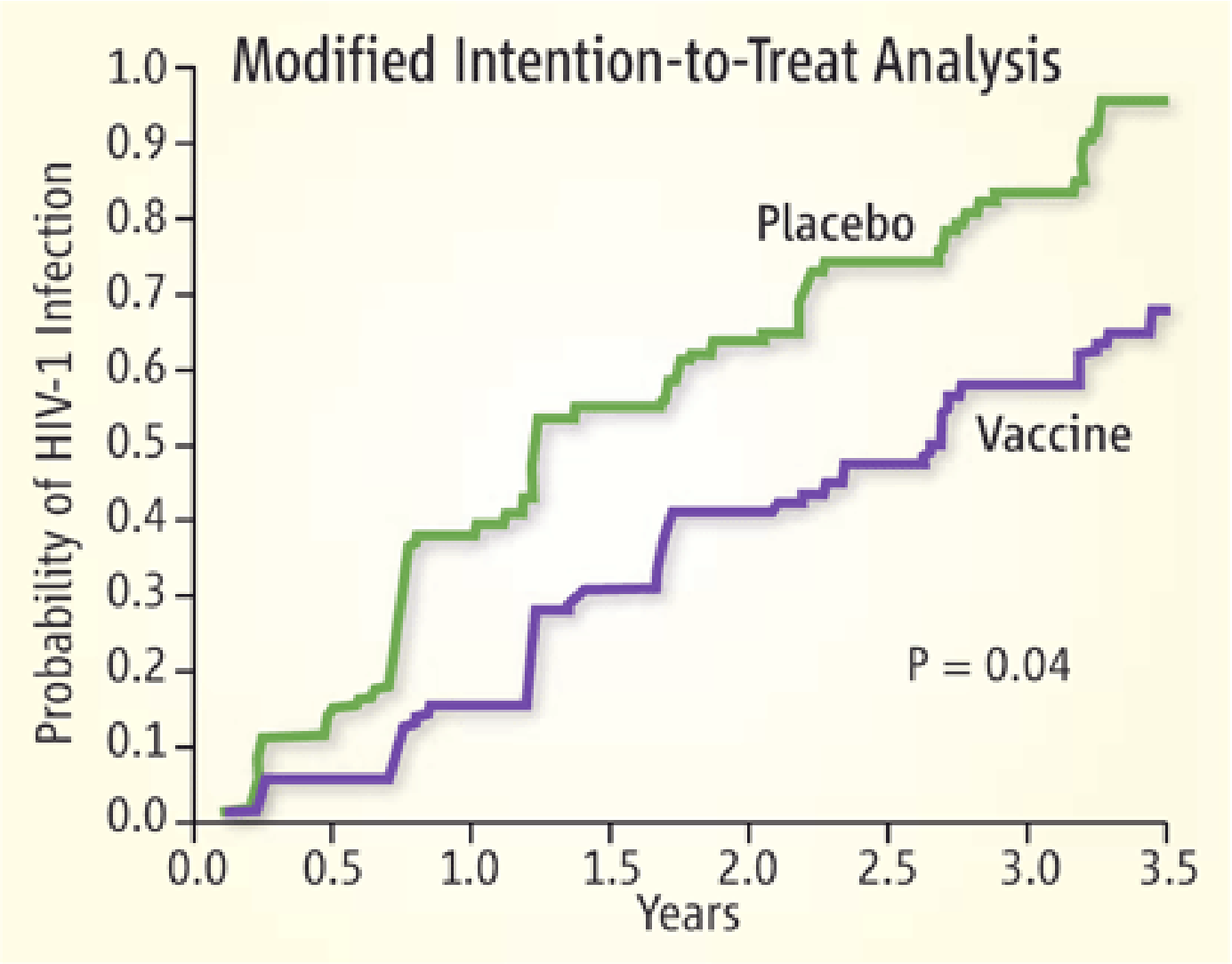


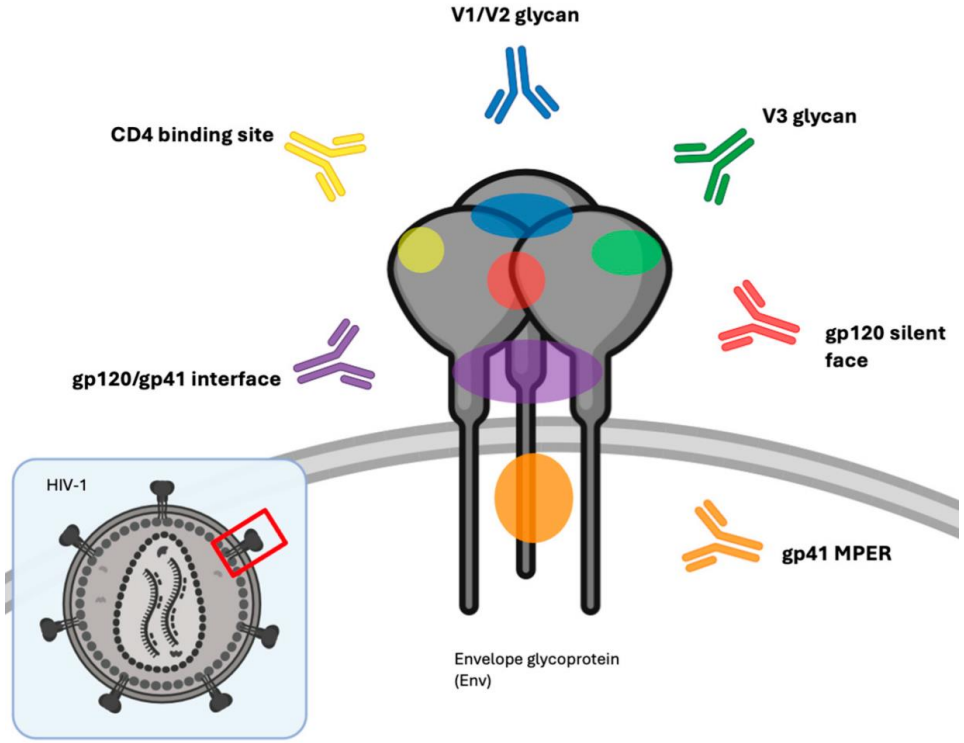
2009: FIRST AND ONLY LARGE CLINICAL TRIAL TO DEMONSTRATE EFFICACY FOR INVESTIGATIONAL HIV VACCINE (PHASE 3 THAI TRIAL, RV144)

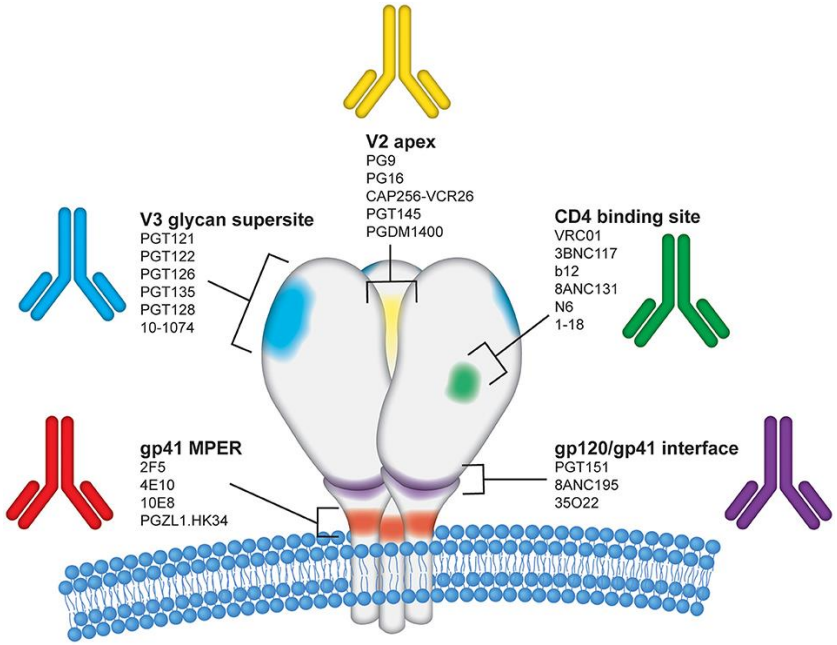
- "PRIME-BOOST": TWO VACCINES IN SEQUENCE, VIRAL VECTOR + PROTEIN SUBUNIT
- 31% EFFICACY IN PREVENTION OF HIV ACQUISITION
- BUT: NO NEUTRALIZING ANTIBODY OR CYTOTOXIC T-CELL RESPONSES
- 2019: TRIAL ABANDONED

History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases
Beyond Thailand: Making Sense of a Qualified AIDS Vaccine "Success" | Science
Shapiro SZ. HIV Vaccine Development: 35 Years of Experimenting in the Funding of Biomedical Research. Viruses. 2020 Dec 19;12(12):1469. doi: 10.3390/v12121469. PMID: 33352755; PMCID: PMC7767134.
Progress Toward an HIV Vaccine

2009, A NEW ERA: BROADLY NEUTRALIZING ANTIBODIES (BNABS)

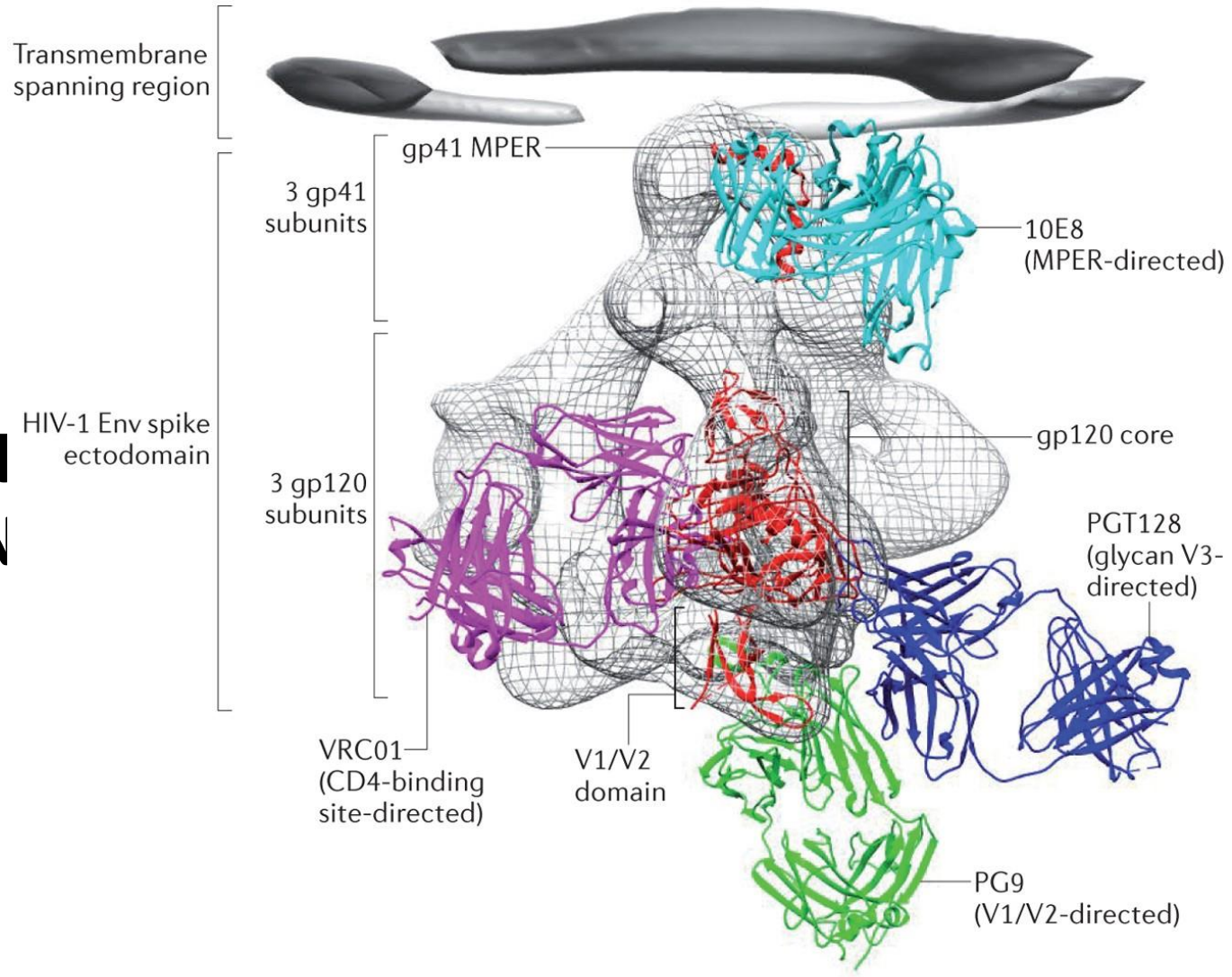
- Neutralizing Antibody Center established : IAVI and The Scripps Research Institute in California
- IAVI isolated bnAbs from large cohorts living with HIV in Africa, India, Thailand, Australia, U.K., and U.S.
- Bill and Melinda Gates Foundation
- Can block HIV infection in the lab
- 2021 study: Possible to protect people from HIV infection
- Circulating HIV strain and bnAbs must be well matched
- Level of bnAbs in the blood must be very high
- Template for further research





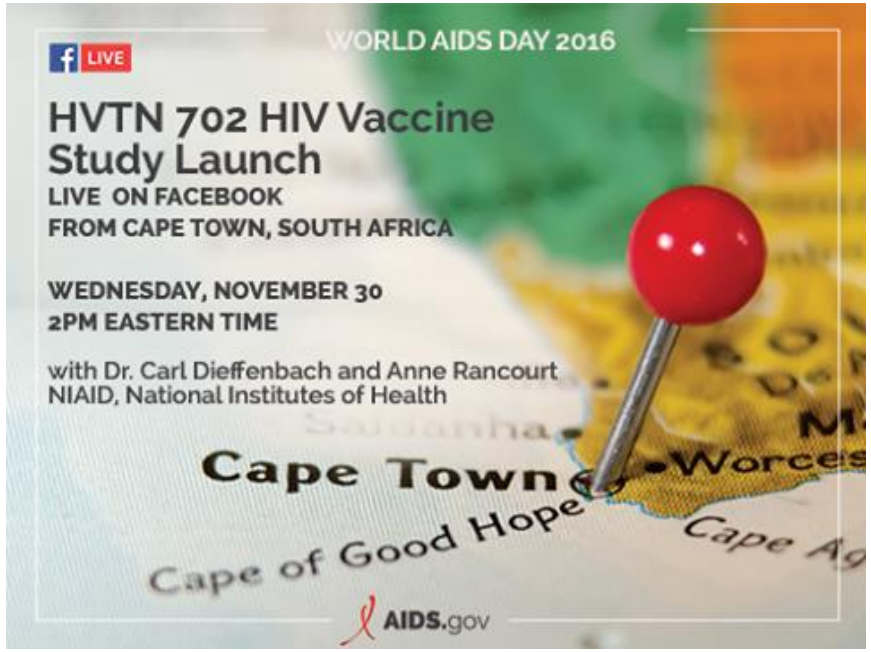
https://www.iavi.org/iavi-report/hiv-vaccine-research-funding-faces-an-uncertain-future/
Shapiro SZ. HIV Vaccine Development: 35 Years of Experimenting in the Funding of Biomedical Research. Viruses. 2020 Dec 19;12(12):1469. doi: 10.3390/v12121469. PMID: 33352755; PMCID: PMC7767134.

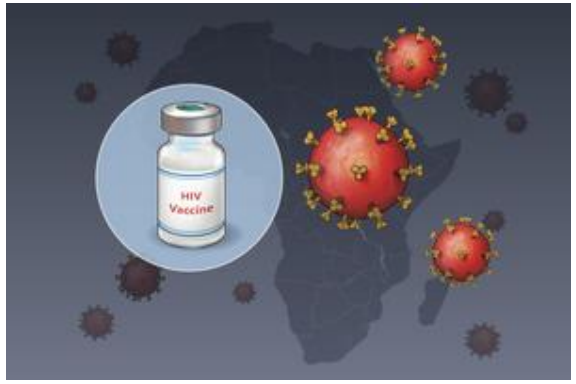
2010: VRC SCIENTISTS IDENTIFIED TWO POTENT ANTIBODIES THAT NEUTRALIZE MOST STRAINS OF HIV IN THE LAB (VRC01 AND VRC02)



Nature Reviews | Immunology

2015: PHASE ½ HVTN 100 STUDY LAUNCHED TO TEST SAFETY OF EXPERIMENTAL HIV VACCINE, BASED ON RV144 FINDINGS





- Progressed to HVTN 702 (South Africa)
- 2020: Stopped for futility, no reduction in HIV infection risk
- Antibody responses did not translate across diverse human or viral populations
- Antibodies produced were of poor quality

History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases
https://desmondtutuhealthfoundation.org.za/admin-dthf/news/hvtn-100-clinicial-trial-findings/
Shim I, Rogowski L, Venketaraman V. Progress and Recent Developments in HIV Vaccine Research. Vaccines (Basel). 2025 Jun 26;13(7):690. doi: 10.3390/vaccines13070690. PMID: 40733667; PMCID: PMC12298520.

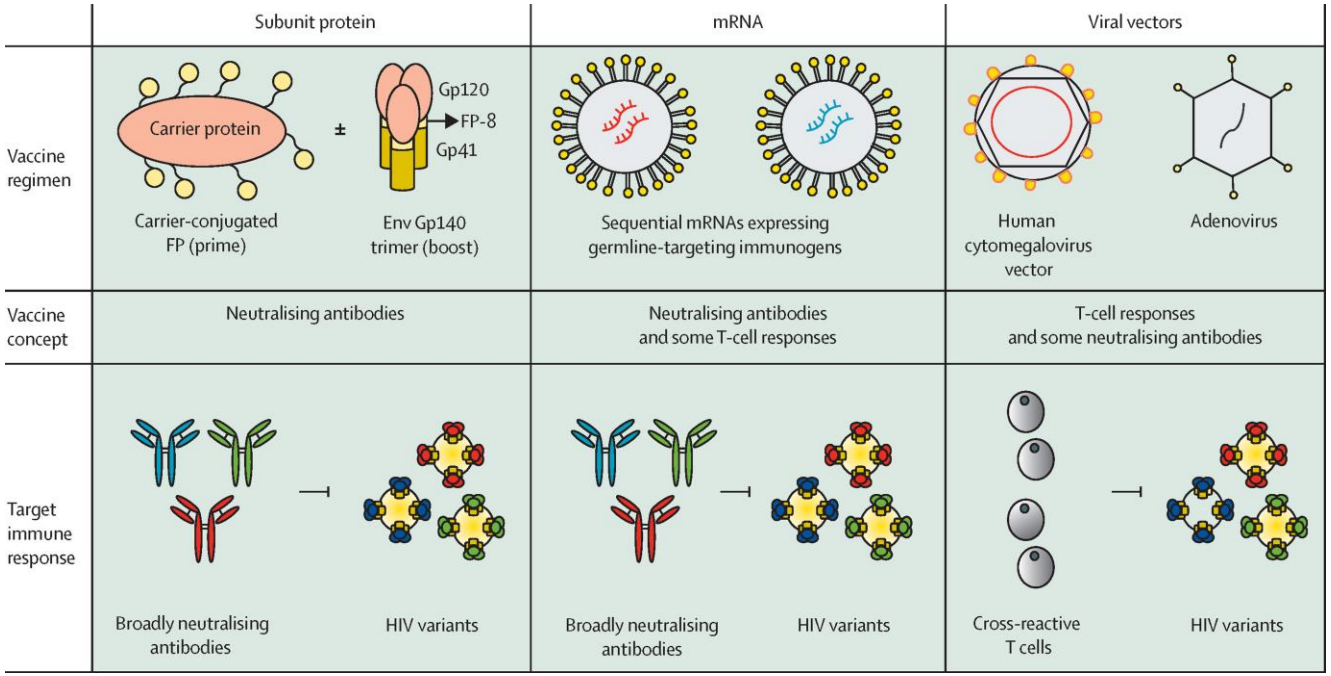
2017: NIAID LAUNCHES IMBOKODO/HVTN 705/HPX2008, PHASE 2B PROOF-OF-CONCEPT STUDY: SAFETY AND EFFICACY OF “MOSAIC” VACCINE

– WIDE VARIETY OF GLOBAL HIV STRAINS
- ADENOVIRUS VECTOR
- ONLY 14% EFFICACY
- NOT EFFECTIVE

History of HIV Vaccine Research | NIAID: National Institute of Allergy and Infectious Diseases
Shim I, Rogowski L, Venketaraman V. Progress and Recent Developments in HIV Vaccine Research. Vaccines (Basel). 2025 Jun 26;13(7):690. doi: 10.3390/vaccines13070690. PMID: 40733667; PMCID: PMC12298520.

THE NEXT FRONTIER

- **Germline-Targeting/Sequential Immunogen Design:** Stimulate naïve B-cells
- **Epitope-Focused/Computationally Optimized Immunogens:** Overcome rapid mutation rate by targeting specific viral proteins, use of nanoparticles
- **Improved Adjuvants/Delivery Systems:** Enhance immune response, needle-free systems
- **mRNA Vaccine Technology:** 2022, Moderna/IAVI launched HVTN 302, Phase 1 trial
- **Passive Immunization/Bi-specific Antibodies:** bNAbs



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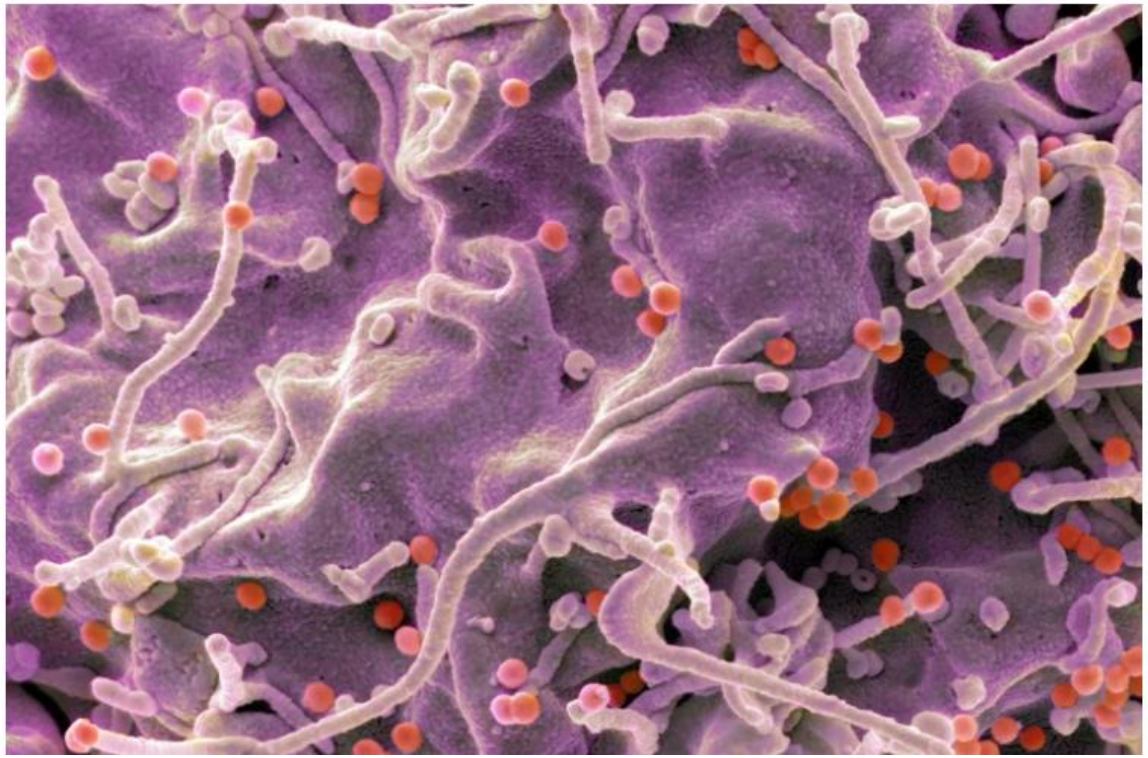
- Early-stage clinical trial
- Two mRNA vaccine candidates
- 80% of participants produced antibodies that could block HIV entry into cells
- Recent trials in the U.S., Rwanda, and South Africa produced a broad immune response

NEWS | 01 August 2025

mRNA vaccines for HIV trigger strong immune response in people

Results from early-stage trial show that 80% of participants who received one of two HIV vaccine candidates produced antibodies against viral proteins.

By Smriti Mallapaty



mRNA vaccines for HIV trigger strong immune response in people

PBS NEWS HOUR

Federal mRNA funding cut is 'most dangerous public health decision' ever, expert says

Aug 6, 2025 6:55 PM EST

NOVEMBER 18, 2025 | 19 MIN READ

Personalized mRNA Vaccines Will Revolutionize Cancer Treatment—If Funding Cuts Don't Doom Them

Vaccines based on mRNA can be tailored to target a cancer patient's unique tumor mutations. But crumbling support for cancer and mRNA vaccine research has endangered this promising therapy

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EDITORIAL | 15 August 2025

Cancelling mRNA studies is the highest irresponsibility

The rest of the world is not following the US government's dangerous path, and will stick with the technology that helped the world out of the COVID-19 pandemic.

JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

ACADEMICS RESEARCH PRACTICE

BLOOMBERG SCHOOL

How Cuts to mRNA Vaccine Development Will Set the U.S. Back

mRNA vaccines' potential to treat infectious diseases, chronic diseases, and even cancer may be stalled with cuts to funding.

The New York Times

Health Policy | Vaccine Questions, Answered | Texas Sues Tylenol Makers | Aluminum in Vaccines | Measles Outbreak | Generic Abortion Pill Ap

NBC NEWS U.S. NEWS POLITICS WORLD LOCAL SPORTS HEALTH EARLY BLACK FRIDAY DEALS TIPLINE WATCH

Kennedy Cancels Nearly $500 Million in mRNA Vaccine Contracts

That kind of shot was first used during the Covid-19 pandemic, but the health secretary has been sharply critical of the technology.

HEALTH NEWS

RFK Jr. cuts $500 million in mRNA vaccine contracts, dealing major blow to promising area of research

The cuts add to mounting evidence that Kennedy is pursuing an aggressive anti-vaccine agenda.

HIV PREVENTION RESEARCH FUNDING CUTS

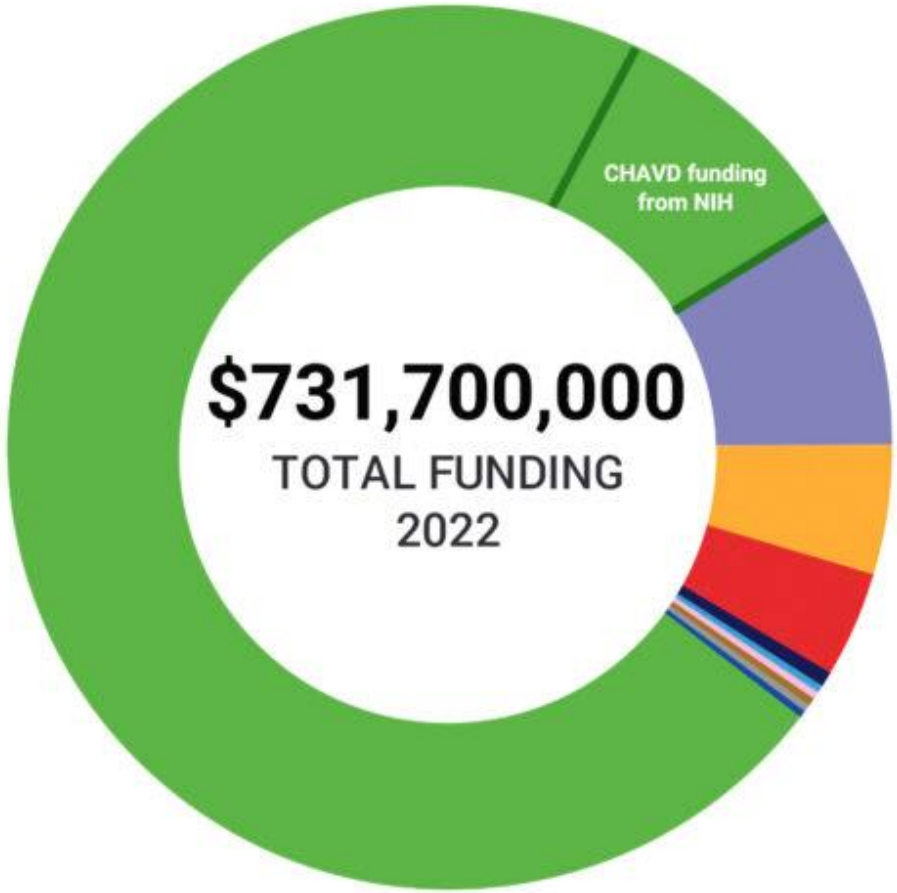
- NIH Funding Cuts
- Eliminated 191 HIV-specific grants worth $200 million
- 56% of active HIV clinical trials halted
- Termination of U.S.-backed international HIV research
- Reduction of NIH personnel dedicated to HIV/AIDS work
- Funding for HIV response $17 billion below what is needed to meet 2030 targets, BEFORE drastic 2025 funding cuts
- Eliminated Consortia for HIV/AIDS Vaccine Development ($67.7 million)
- Proposed White House budget for FY2026 features a $2 billion cut to federal HIV programs

https://www.iavi.org/iavi-report/hiv-vaccine-research-funding-faces-an-uncertain-future/
House funding bill would put America at risk for an HIV crisis
Trump administration's 'catastrophic' cuts to HIV/AIDS funding eliminates $2M Meharry grant • Tennessee Lookout

HIV Vaccine Funding: Impact of Cuts to the Consortia for HIV/AIDS Vaccine Development (CHAVD)

2022 Data (US$ millions)

The CHAVD grants represent approximately 10% ($67.7M) of all funding for HIV vaccine development, and also represents a funding amount that is larger than annual giving by any other donor



- $591.6M National Institute of Health
- $67.7M Consortium for HIV/AIDS Vaccine Development (CHAVD
- $64.3M Gates Foundation
- $34.1M US Military HIV Research Program
- $28.5M USAID
- $3.5M EDCTP
- $2.6M European Commission
- $2.0M DST South Africa
- $1.9M NHMRC Australia
- $1.8M Japan Ministry of Finance
- $1.5M DLR Project Management Agency

AVAC HIV Resource Tracking Data: https://www.hivresourcetracking.org/

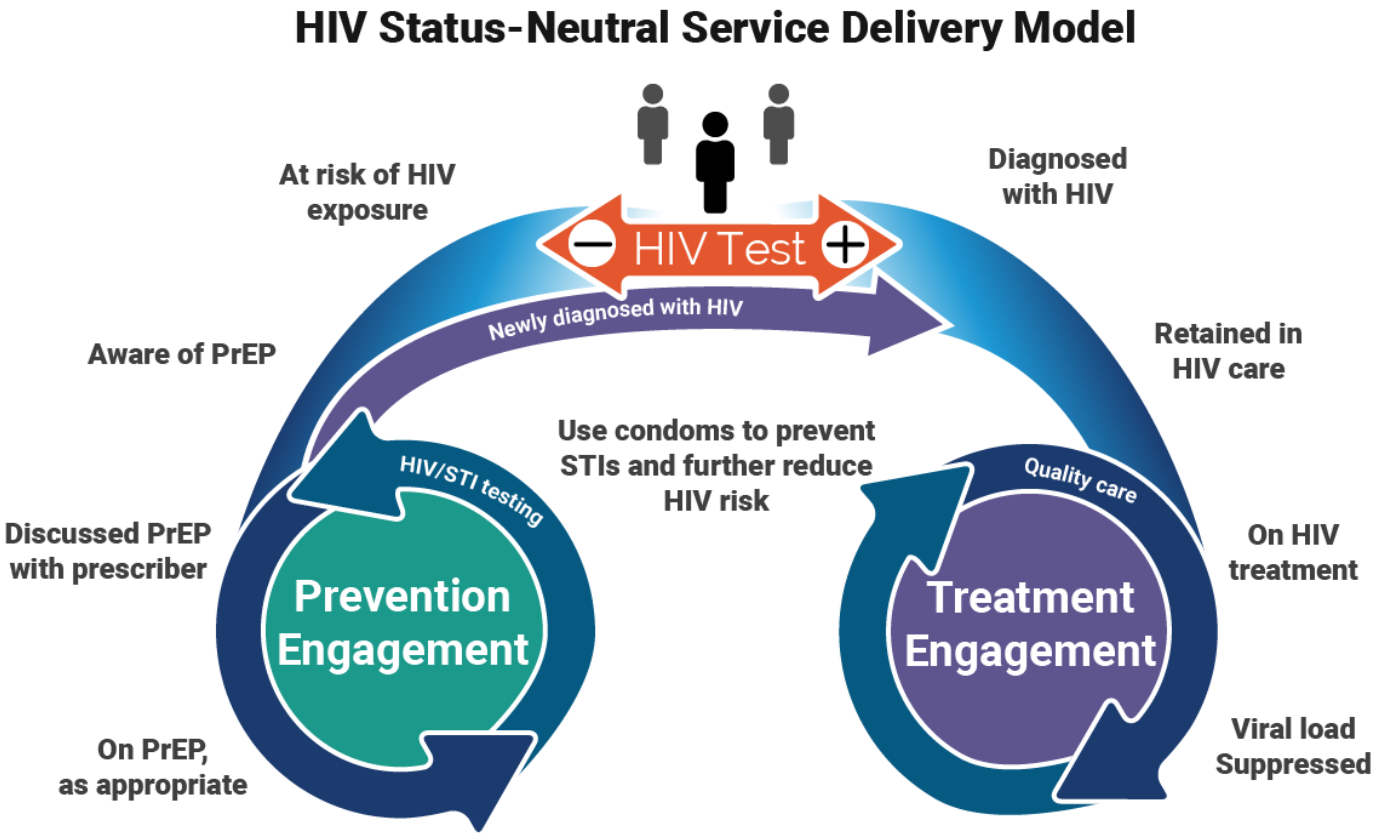
AVAC
Advocacy. Access. Equity.

July 2025

Impact of Cuts to the Consortia for HIV/AIDS Vaccine Development (CHAVD) - AVAC

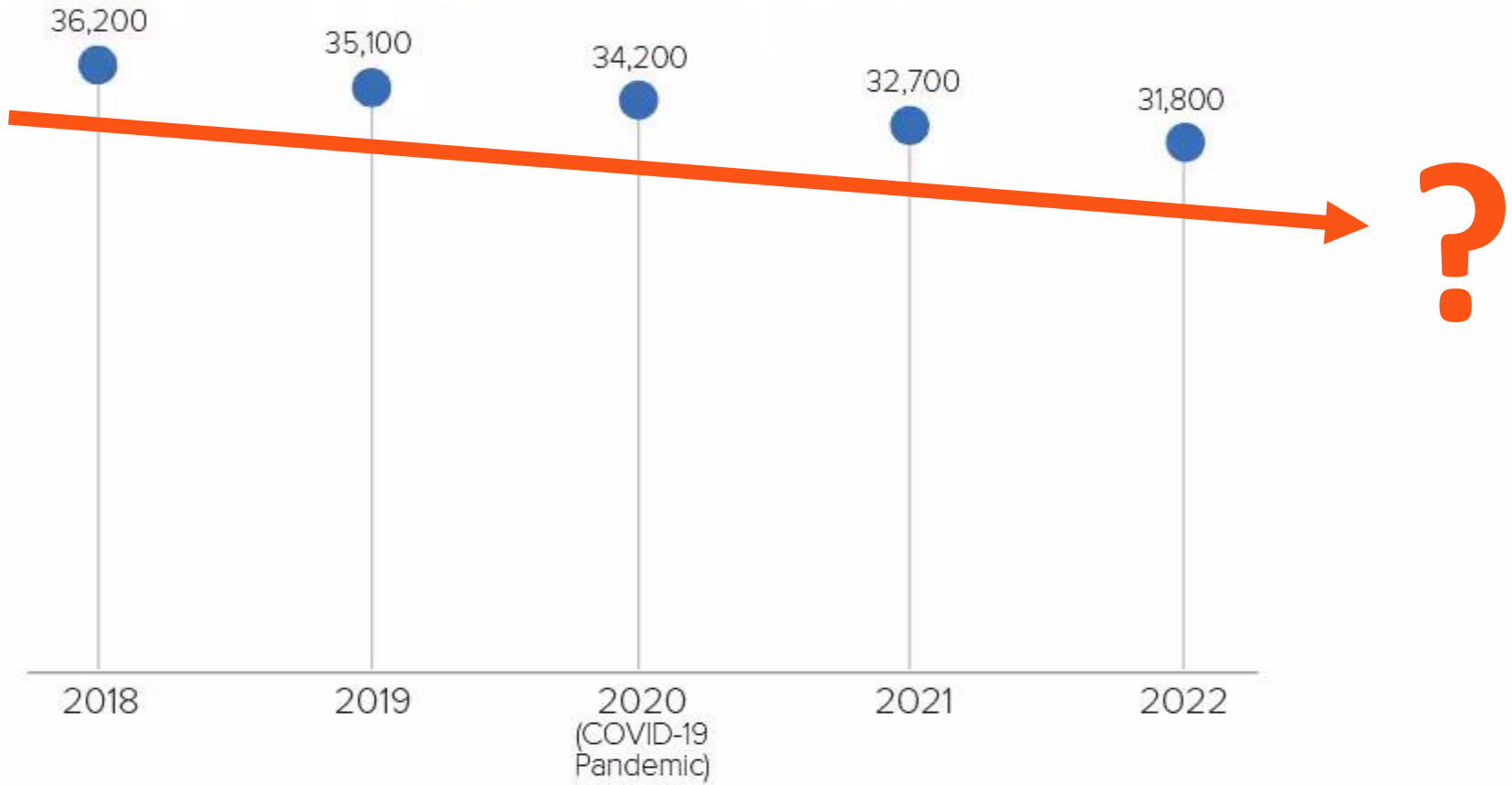
CURRENT STATE OF AFFAIRS

- 20+ HIV vaccine clinical trials ongoing
- Fiscal and budgetary challenges
- Political challenges
- Fate of mRNA vaccine platform research
- Importance of HIV treatment and prevention: U=U, PrEP, barrier protection, safe sex, substance use prevention and treatment, mental health treatment



https://www.iavi.org/iavi-report/hiv-vaccine-research-funding-faces-an-uncertain-future/
An "HIV status neutral" paradigm shift - CAYR COMMUNITY CONNECTIONS

Progress in HIV prevention continues with an overall 12% decline in estimated HIV infections from 2018 to 2022.



Ending the HIV Epidemic

Overall Goal: Decrease the estimated number of new HIV infections to 9,300 by 2025 and 3,000 by 2030.

U.S. Statistics | HIV.gov

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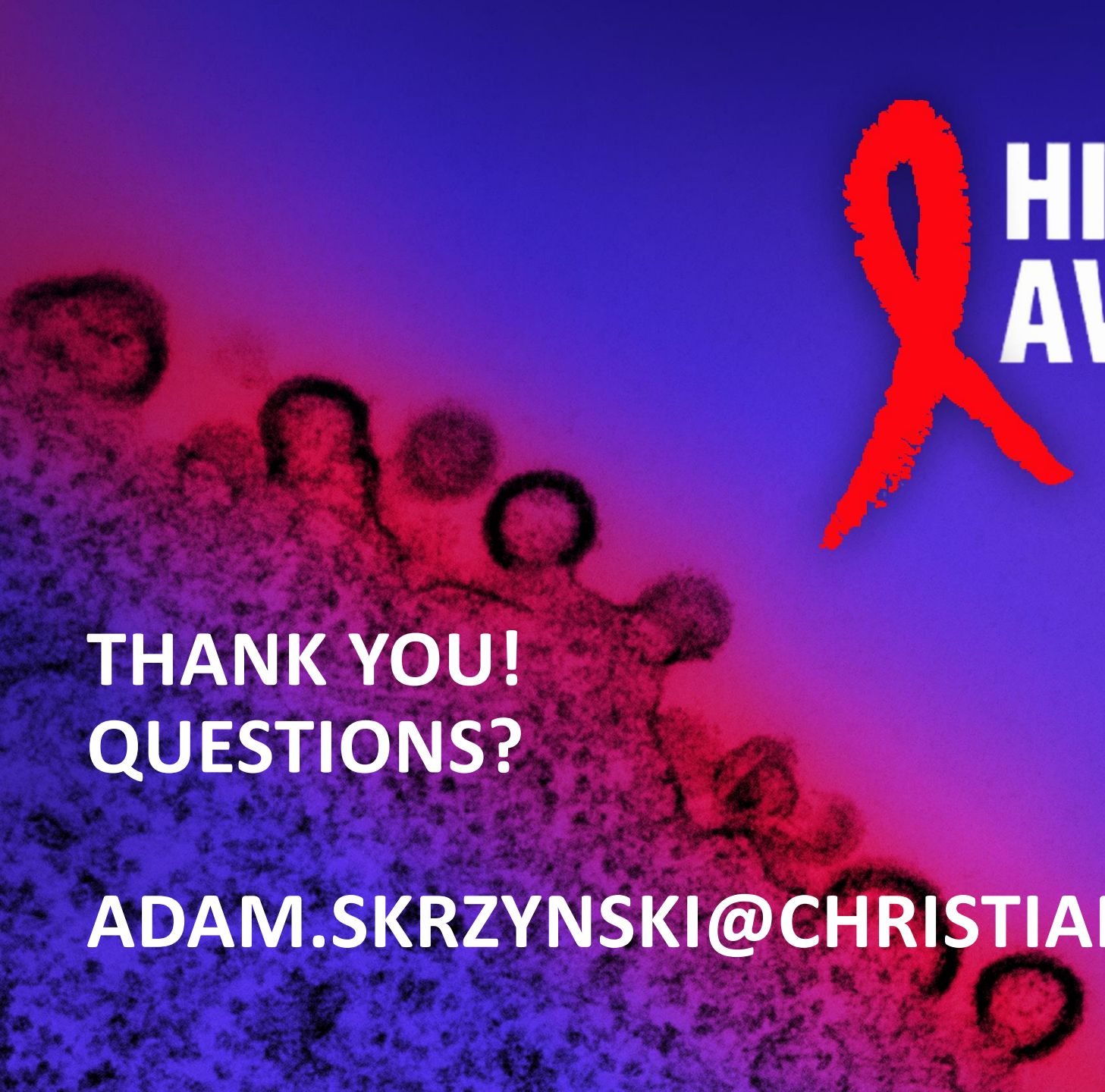
- U.S. Statistics | HIV.gov

HIV VACCINE AWARENESS DAY

MAY 18th



THANK YOU!
QUESTIONS?

ADAM.SKRZYNSKI@CHRISTIANACARE.ORG