

# TealDANCE

Investing in innovative technologies

Data Algorithms Networks Cloud Equipment

May, 2018, Beijing

# HIV Treatment and Prevention Is Still A Big Global Challenge

AIDS is a large and still growing problem affecting the entire world, including the US\*

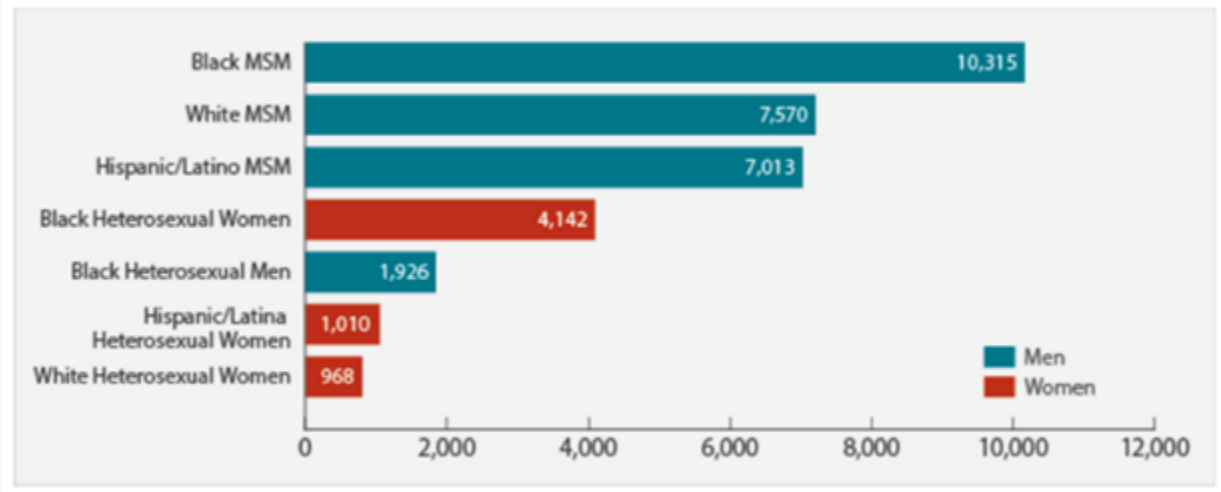
## Global summary of the AIDS epidemic | 2015

Number of people living with HIV in 2015	<b>Total</b>	<b>36.7 million</b>	[34.0 million – 39.8 million]
	<b>Adults</b>	<b>34.9 million</b>	[32.4 million – 37.9 million]
	<b>Women (15+)</b>	<b>17.8 million</b>	[16.4 million – 19.4 million]
	<b>Children (&lt;15 years)</b>	<b>1.8 million</b>	[1.5 million – 2.0 million]

People newly infected with HIV in 2015	<b>Total</b>	<b>2.1 million</b>	[1.8 million – 2.4 million]
	<b>Adults</b>	<b>1.9 million</b>	[1.7 million – 2.2 million]
	<b>Children (&lt;15 years)</b>	<b>150 000</b>	[110 000 – 190 000]

AIDS deaths in 2015	<b>Total</b>	<b>1.1 million</b>	[940 000 – 1.3 million]
	<b>Adults</b>	<b>1.0 million</b>	[840 000 – 1.2 million]
	<b>Children (&lt;15 years)</b>	<b>110 000</b>	[84 000 – 130 000]

## New HIV Diagnoses in the United States for the Most-Affected Subpopulations, 2015



\*UNAIDS.org 2016 report

Less than 50% of 36.7 million patients globally are on antiretroviral therapy (ART)

Less than 0.2% - on Pre-exposure Prophylaxis (PrEP)

# SOLUTION

Give HOPE

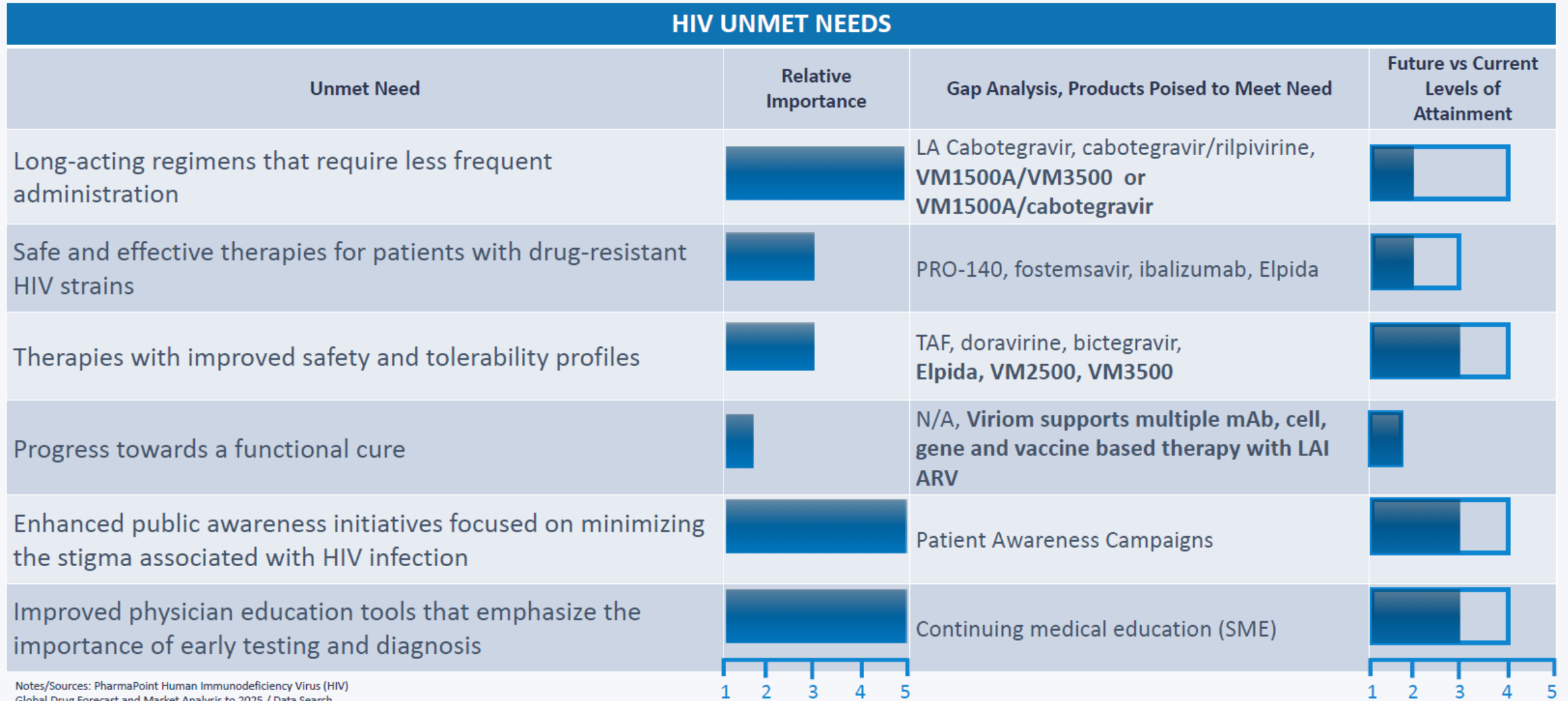
Provide HEALTH

Share HAPPINESS



# Medical Needs For HIV 2017-2030

The most significant unmet need is for long-acting therapies, ideally one injection every three months<sup>3</sup>



Notes/Sources: PharmaPoint Human Immunodeficiency Virus (HIV) Global Drug Forecast and Market Analysis to 2025 / Data Search

1. Level of Importance: ranges from 1 to 5 (1=low, 5=high)

2. Level of Attainment: ranges from 1 to 5 (1=low, 5=high)

3. ViiV and Janssen are currently evaluating novel injectable long-acting INSTI-based formulations

Current Level of Attainment  
 Future Level of Attainment

# Viriom Is Developing A Pipeline of Potential Best-in Class Anti-HIV Drugs



## Best Treatment and Prophylaxis

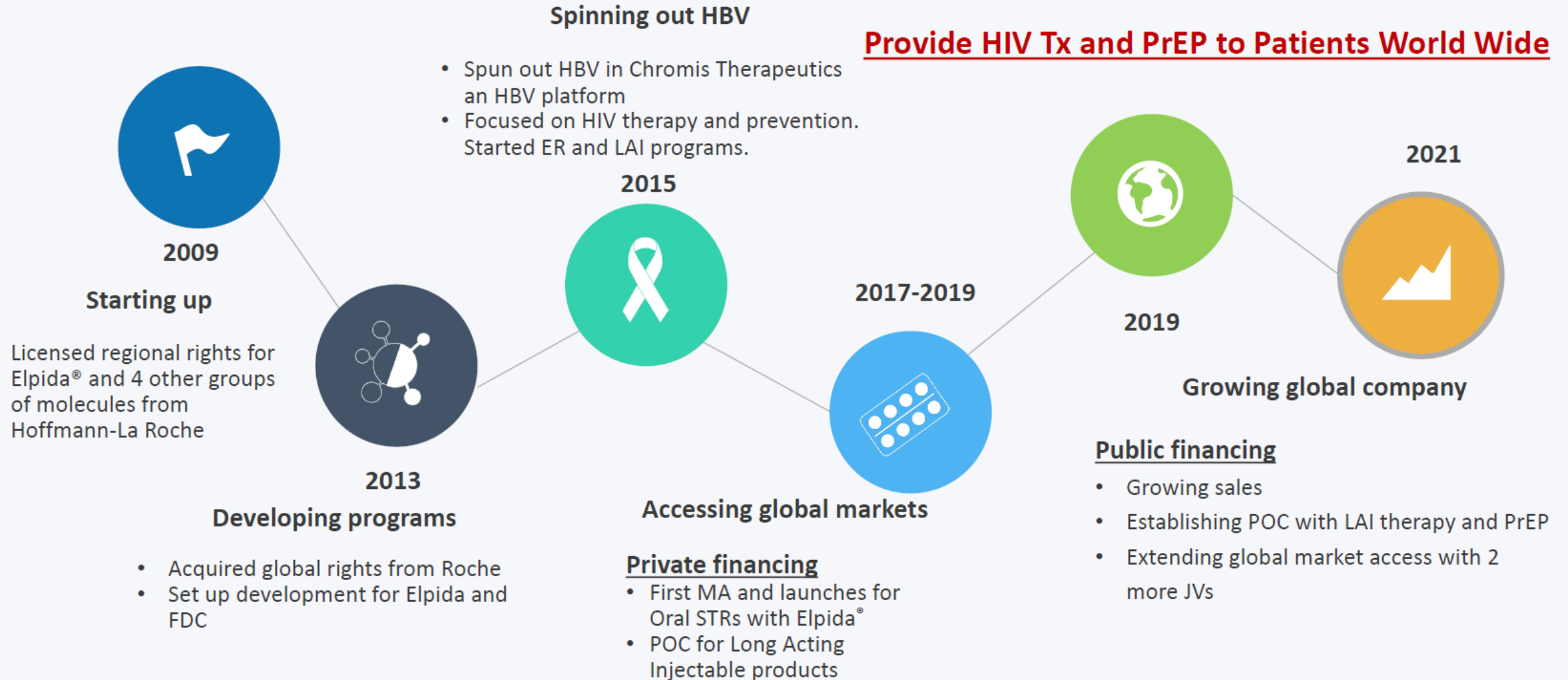
*\*partnering with NIH, UWH, DZNE, NewVac, UMD/AGT, IoSPC*

*† Partnering with SkF*

Invites Partners with

- ✓ New targets pathways
- ✓ Combination therapies
- ✓ Long acting formulation and devices for sustained release
- ✓ Curative therapies
- ✓ Market access

# Viriom's Evolution and Vision: Focus on HIV Therapy, Prevention and Cure



# Elpida®, Elsulfavirine: Novel Best in Class NNRTI\*

## Next NNRTI Generation

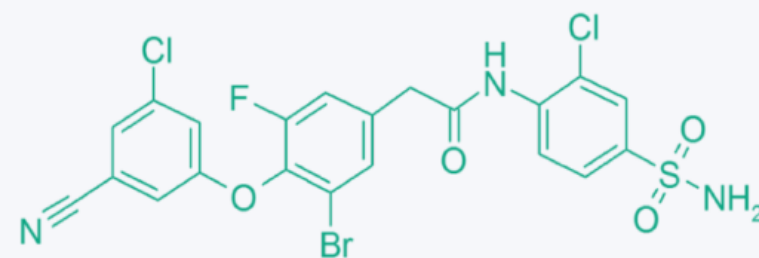
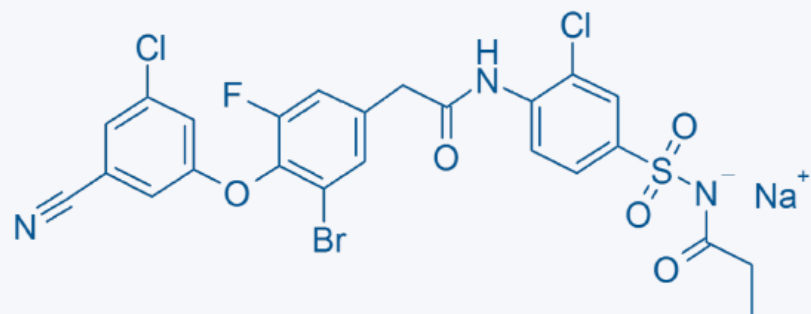
VM1500 (Elsulfavirine, ESV) oral

Pro-drug

Liver

VM1500A

Active Drug



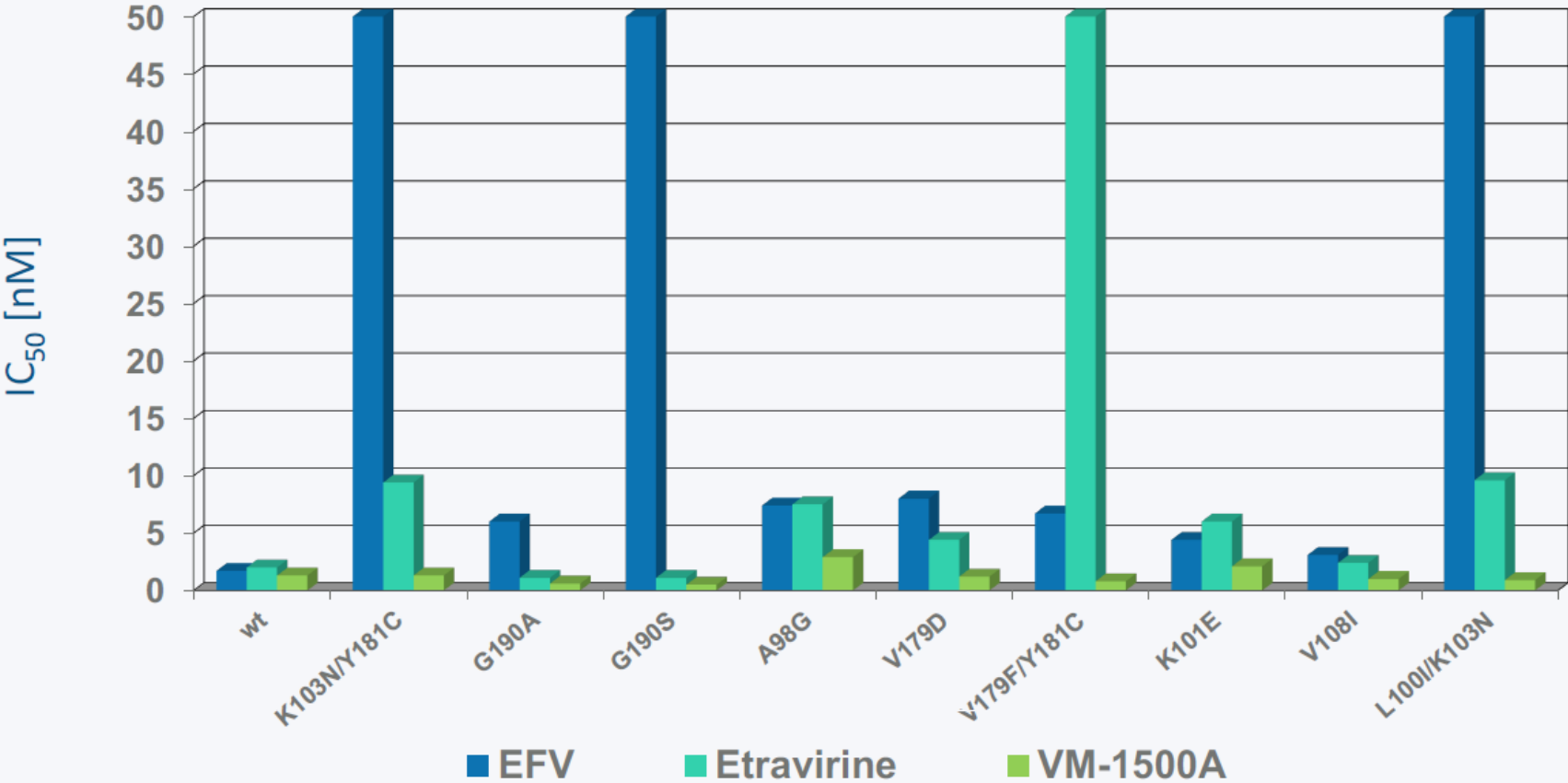
1. High efficacy across HIV isolates
2. High barrier to resistance
3. Unique PK Profile with prolonged Half-Elimination Time ( $T_{1/2} = 7.4$  days) supports robust HIV suppression long acting formulation development for infrequent dosing

\*NNTRI: non-nucleoside reverse transcriptase inhibitor

# VM1500A Antiviral Activity Is Not Affected

By the Most Prevalent NNRTI Resistance Mutations

MUT	K103N	Y181C	G190A/S	A98G/S	V179I/D	K101E/Q/P/R	V108I	L100I
Prevalence* [%]	49	25	22	13	11	11	6.4	5.2

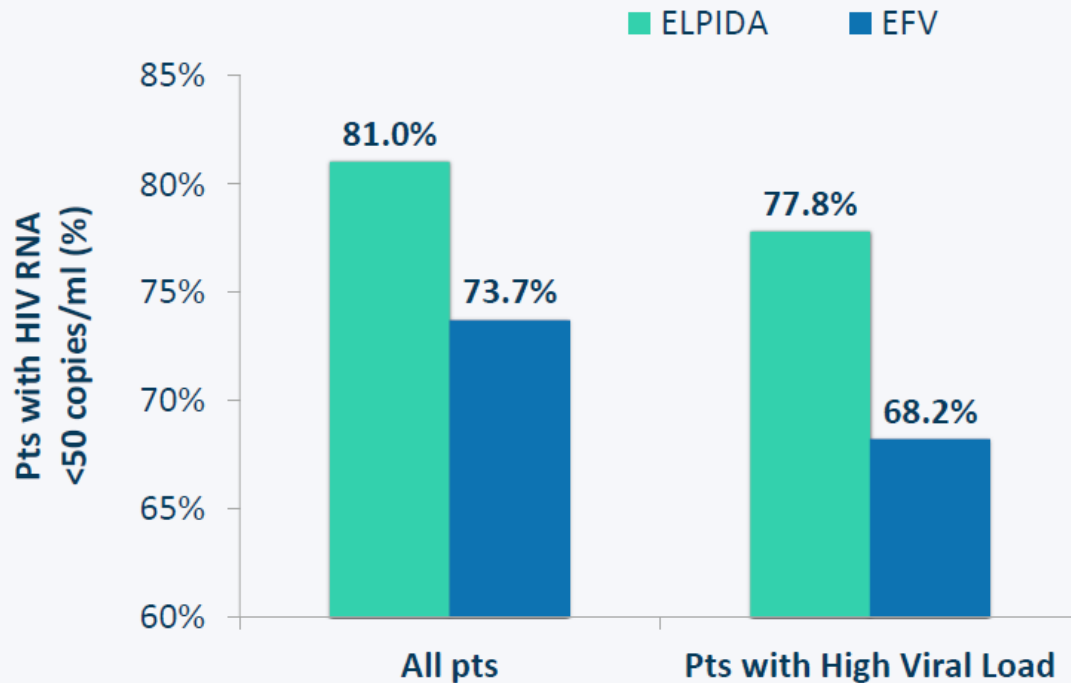




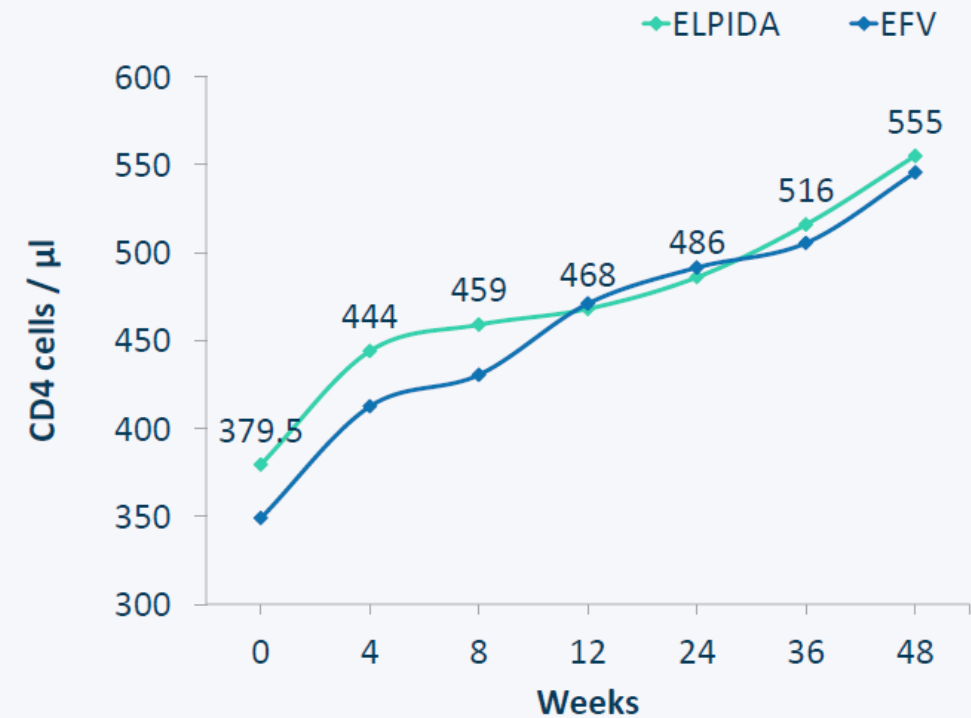
# ELPIDA®: High Antiviral Efficacy (48 and 96 weeks)

## Non-Inferior To EFV, Also in Patients with High Viral Load

Virologic Efficacy

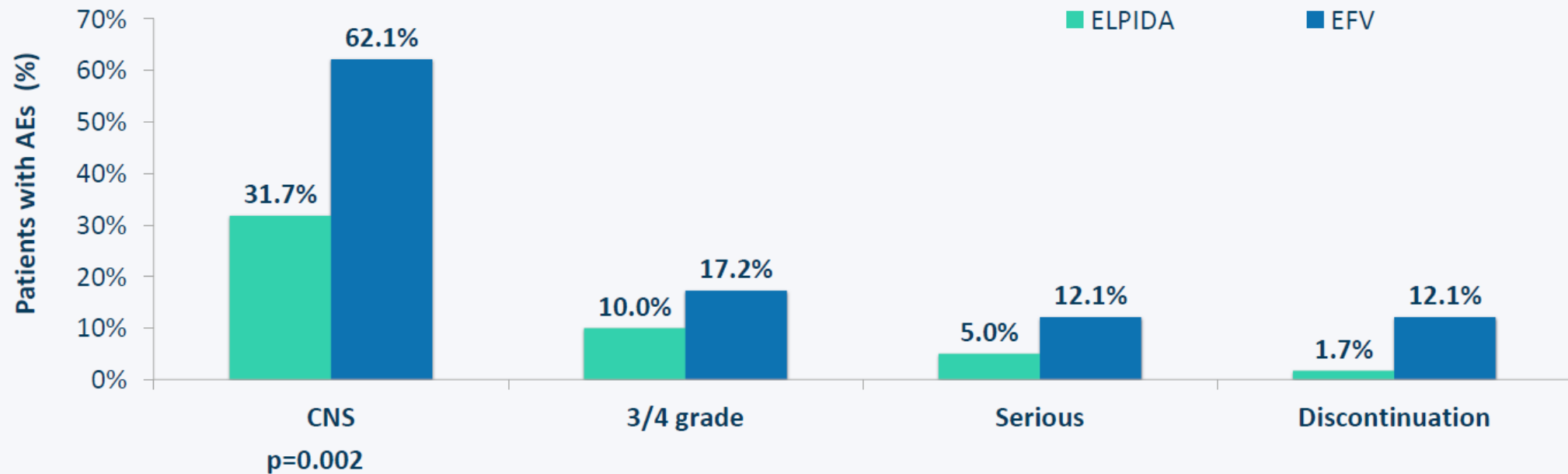


Immunological Efficacy



**No Virologic Breakthrough (Resistance) Observed To Date**

# ELPIDA®: Superior Safety/Tolerability Profile vs EFV

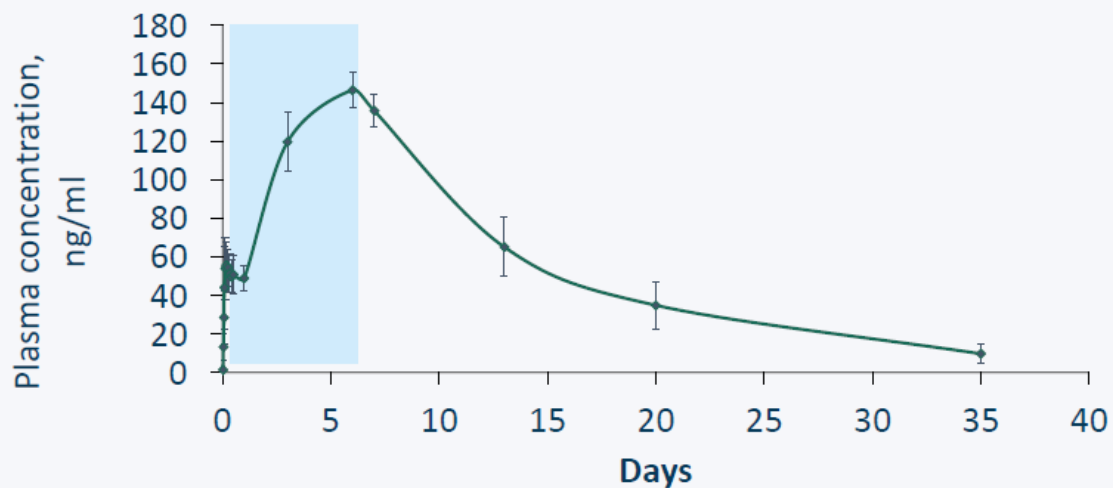


Randomized multicenter partially blind comparative clinical study in 12 centers in 240 patients

# VM1500A: Unique PK Profile

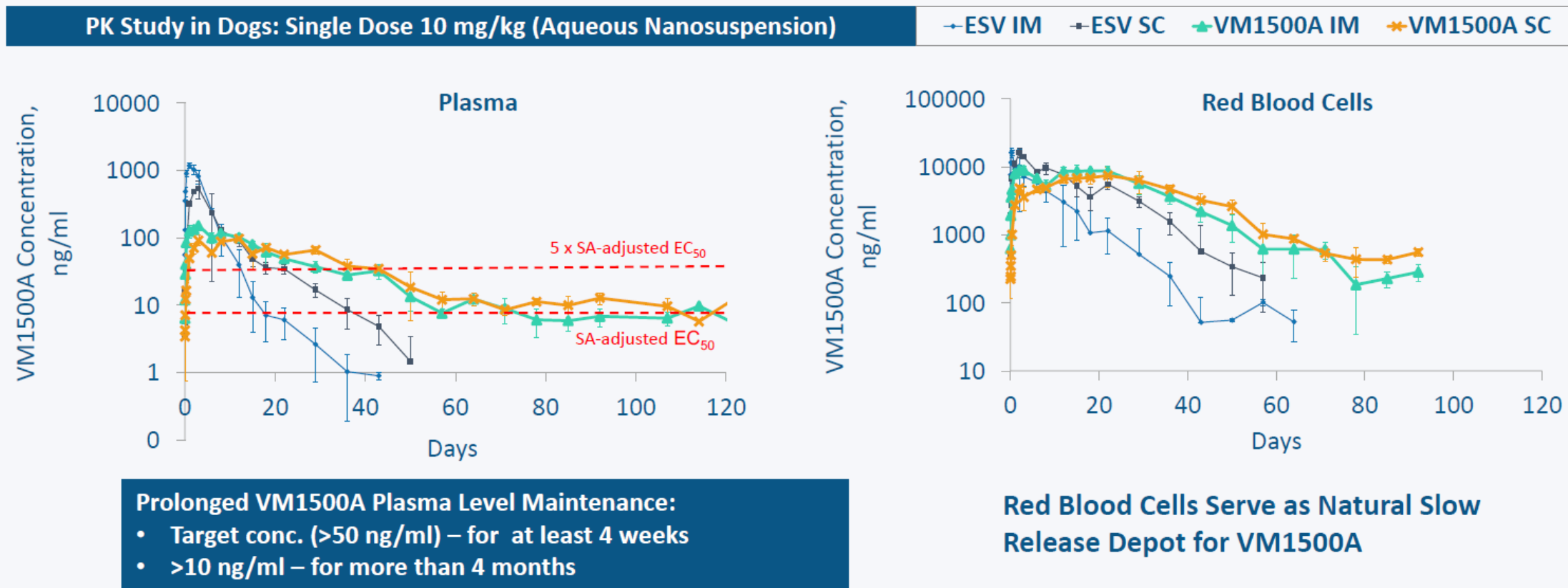
## Prolonged Half-Elimination Time ( $T_{1/2} = 7.4$ Days)

HIV patients, 20 mg QD Elpida, 7-day Monotherapy (n=7)



	VM1500A (Active)
T1/2	7.4 ± 1.6 days
Tmax	6.3 ± 0.5 days
Cmax, ng/ml	148 ± 8

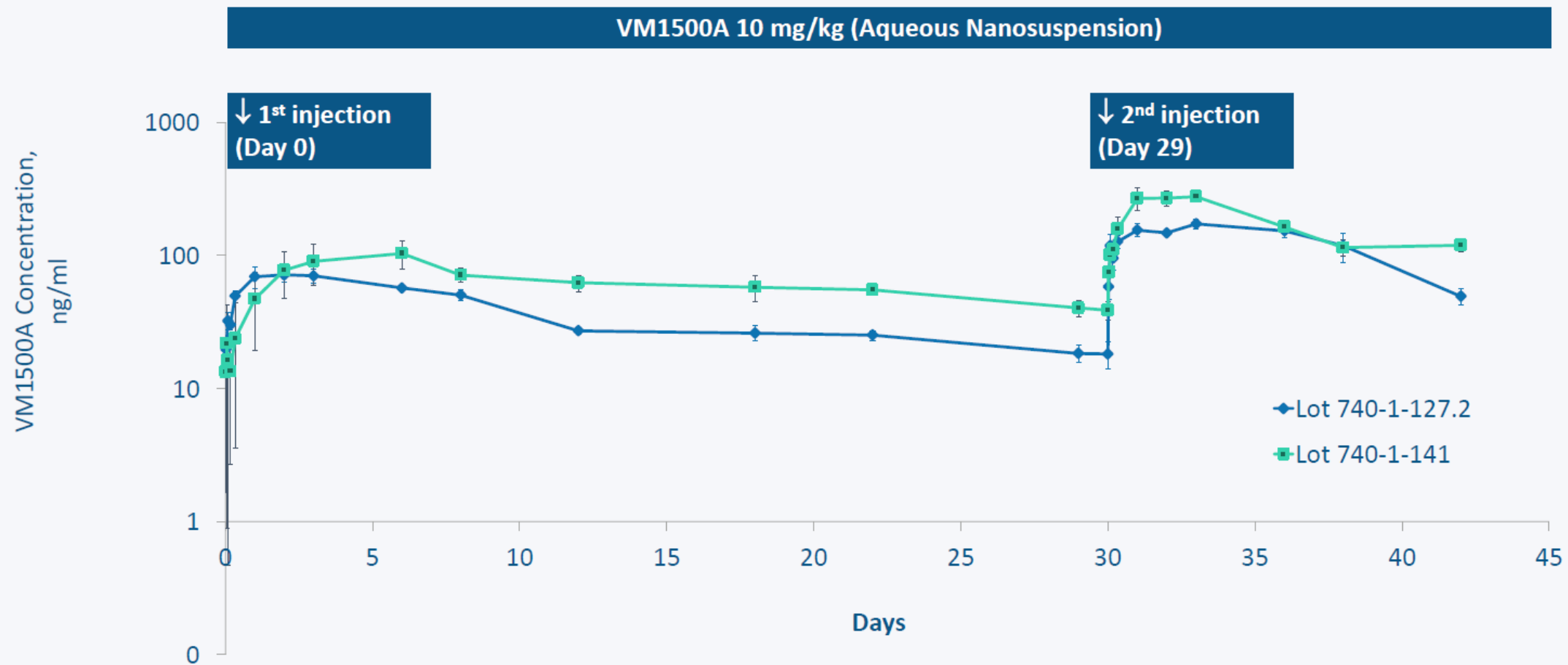
# VM1500A LAI Formulation Development: Proof of Concept



Rogovoy B. et al. EACS Conference 2017, Milan, Poster PE7/3.

Koryakova A. et al. 20<sup>th</sup> ESCV Meeting, 2017, Stresa, Italy, Oral presentation

# VM1500A LAI Formulation: PK study in Dogs After Repeat IM Administration



# Lead Products Elpida® and VM1500A

## well differentiated best in class HAART and potential HIV cure backbone



### Elpida®

- ✓ an effective and well tolerated NNRTI with excellent antiviral efficacy, resistance profile, pharmacokinetic properties and safety profile.
- ✓ **launched in first markets in 2017** as oral once daily 20mg capsules in combination with other ARV therapies, fast progress with additional market registrations
- ✓ developed with a reduced frequency (qw) of administration based on its long plasma half life (>7 d)

### VM1500A

- ✓ developed as a Long Acting Injectable (LAI) for IM or SC administration every or every 3 months. FIM - Q3'2018
- ✓ developed as Long Acting Injectable Pre-Exposure Prophylaxis (PrEP)



### Both Elpida and VM1500A have potential to capture large market shares as:

#### Treatment or PrEP for treatment naïve and treatment experienced patients

- ✓ Administered daily (PO), weekly (PO), monthly (SC, IM), or every 3 months (SC, IM)
- ✓ Nucleoside-based or Nucleoside-sparing dual or triple drug regimens

# Dominant Intellectual Property

## Global Freedom to Operate:



- ✓ Exclusive global license to the family of Hoffmann-La Roche patents with exclusivity to 2030\*
- ✓ Broad and specific coverage with new patents filed on new composition of matter, formulations combinations and methods of treatment Long Acting Injectable and oral extended release medicines and PrEP in NNRTi, pro-drug NRTi, NIST and other classes with exclusivity to 2037

## Access to HBV and antimicrobial development platforms through licensing options:

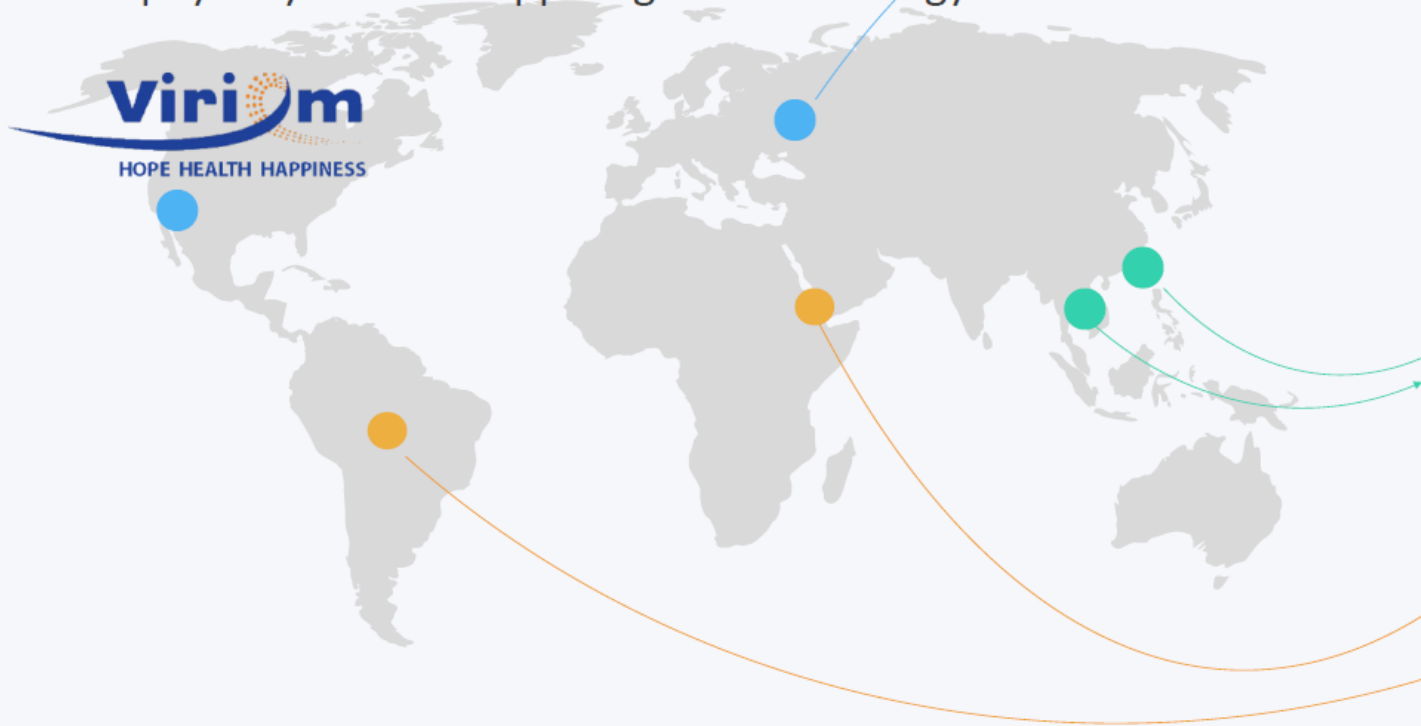


- ✓ Multiple license option agreements for synergistic potentially curative HBV and antimicrobial medicines and respective development platforms
- ✓ Subject to successful commercial and late stage development of HIV platform

\* Certain patents are subject to market specific exclusivity extension

# Joint Venture Partnering for Market Access

- Viriom owns controlling majority stakes at JVs world wide
- JVs shares R&D and Marketing costs with Viriom Inc to accelerate regional market access
- JVs pays royalties to support global IP strategy



## Viriom OO

1  
JV with Pharmstandart for registration, manufacturing and marketing of Viriom products in Russia and EAEU markets

## Viriom EA and SEA

2  
3  
Proposed JV with regional pharma manufacturer and distributor for Viriom products in East and South East Asia

## Viriom SA +CSA

4  
Proposed JV with regional pharma manufacturer and distributor for Viriom products in South Asia and Latin America



# Experienced Management Team

- Over 15 years of joint experience for core founding team
- Over 120 years of international investment and management experience combined
- Corporate Counsel: Eddie Wang Rodriguez, Troutman Sanders LLP



**Robert Murphy**  
**CMO**

Northwestern University  
Feinberg School of Medicine  
Aclires



**Vadim Bichko**  
**CSO**

ChemDiv, Anadys, Idenix,  
Max Plank Institute  
of Biochemistry



**Nikolay Savchuk**  
**eChairman**

Torrey Pines Investment  
TealTech Capital,  
ChemDiv, Avelas, Afraxis



**Ronald Demuth**  
**CFO**

Integrated Genomics,  
Arch Ventures, Afraxis  
Torrey Pines Investment



**MiRa Hygne**  
**Head Clinical**

Conatus, Idun,  
Santarus, Ligand

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Torrey Pines Investment

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Director

Torrey Pines Investment

Augustin Lawlor

Director

Health Care Ventures

Dr. David Pauza

Assoc Director HIV, CSO AGT

Clinical Development and Strategy

Janet Hammond

Hoffmann-La Roche, BMS

Clinical development and regulatory strategy

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Mohidol University, Red Cross

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Antiviral Research

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IriSys, Tanabe Pharmaceuticals  
Avanir, MD Anderson

Drug Formulation and Regulatory

Dr. Seth Berkley

Director GAVI, WHO

Global Strategy

Long term and successful board, consultative and business relationship with SAB members

Looking for solid partner in China



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