CHIMERIX

HC WAINWRIGHT 20TH ANNUAL GLOBAL
INVESTMENT CONFERENCE

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Forward-Looking Statements

These slides and the accompanying oral presentation contain forward-looking statements and information within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to risks, uncertainties and other factors, including the possibility that there may not be a viable continued development path for brincidofovir, that any clinical trials we may conduct will not demonstrate adequate efficacy and safety of brincidofovir, that the FDA and other regulatory authorities may not approve brincidofovir or brincidofovir-based regimens, and that marketing approvals, if granted, may have significant limitations on their use. As a result, brincidofovir may never be successfully commercialized. In addition, Chimerix may be unable to file for regulatory approval for brincidofovir with other regulatory authorities. Similar risks and uncertainties apply to our development of CMX521. These risks, uncertainties and other factors could cause actual results to differ materially from those referred to in the forward-looking statements. The reader is cautioned not to rely on these forward-looking statements. These and other risks are described in detail in Chimerix's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 and other documents subsequently filed with or furnished to the U.S. Securities and Exchange Commission. All forward-looking statements are based on information currently available to Chimerix, and Chimerix assumes no obligation to update any such forward-looking statements.

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CMRX: Developing Solutions for Immunocompromised Patients

- Experienced and committed management team with successful track records developing significant antiviral drugs and first-in-indication commercial launches
- Proprietary lipid-conjugate technology and large chemical library has led to three clinical-stage compounds
  - Brincidofovir (CMX001, BCV) first broad-spectrum antiviral in development
  - CMX157, licensed to ContraVir for hepatitis B
  - CMX521: newest investigational nucleoside for norovirus in Phase 1
- Well-capitalized to achieve planned milestones with $196M at the end of 2Q 2018
- Patent protection into 2034 for brincidofovir and 2036 for CMX521

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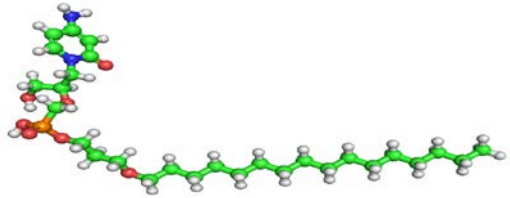
Lead Compound: Brincidofovir (BCV, CMX001)



- Broad-spectrum antiviral with high *in vitro* potency against all herpes viruses, adenovirus subtypes, and other DNA viruses that cause human disease
- Oral suspension, oral tablets, and IV formulations in development
  - All formulations deliver BCV to blood and cells known to carry DNA viruses
  - Cleavage of lipid side-chain occurs in the cell, delivering the active antiviral directly to the site of viral replication
  - Not associated with kidney toxicity or hematologic toxicity[1,2]
- Potential indications:
  - Treatment of serious AdV infection and disease
  - Treatment of BK virus in kidney and hematopoietic stem cell transplant (HCT) recipients
  - Prevention of serious viral infections in HCT recipients including HHV6
  - Treatment of smallpox

BCV is the only broad spectrum antiviral with demonstrated potency against a variety of DNA viruses, a high barrier to resistance, no kidney or hematologic toxicity, and patent protection until 2034

1. Papanicolaou G, et al. European Society for Blood and Marrow Transplantation (EBMT), April 2014.
2. Morrison M, et al. World Transplant Congress, July 2014.

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Why Do We Need a Broad-Spectrum Antiviral?

- Patients with significant immune compromise, such as recipients of a stem cell transplant, face up to a 1-in-5 risk of mortality from infection in the first year after transplant
- There is a growing population of patients on biologics and long-term therapies for cancer or autoimmune disease that increase the risk of viral diseases
  - Ex: JC virus and PML reported in patients on long-term biologics
- An increasing understanding of the relationship between viral infection and risks of some cancers may provide an opportunity for intervention at an earlier stage of disease
  - Ex: HPV-associated head-and-neck cancers
- Emerging therapies are presenting new risks for viral infections

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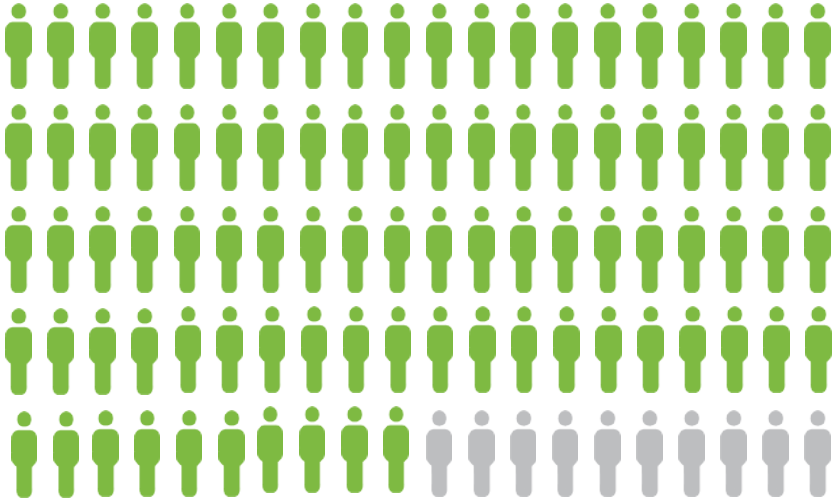
Stem Cell Transplant Recipients are at High Risk of Multi-Viral Disease and Mortality



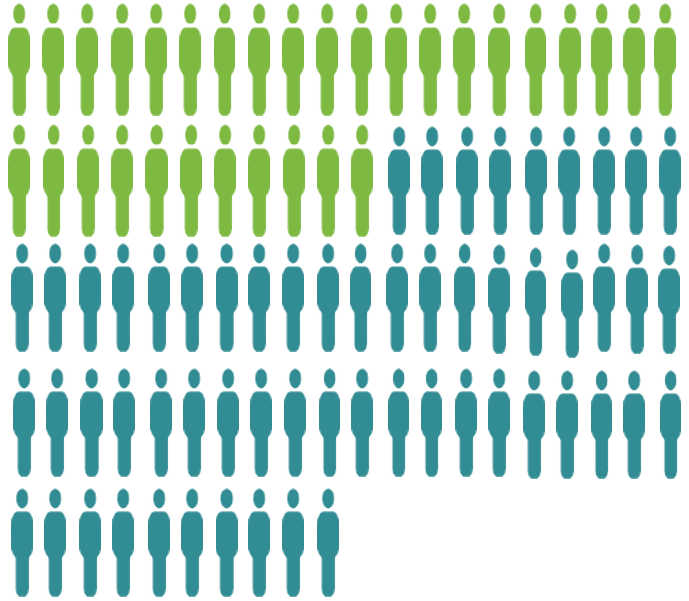
At least one DNA Virus in 363/404=

90%

2/3 have two or more DNA viruses

66%

1 in 3 HCT recipients had ≥3 DNA viral infections detected



Hill JA et al. Blood. 2017 Feb 16. pii: blood-2016-10-748426. doi: 10.1182/blood-2016- 10-748426.

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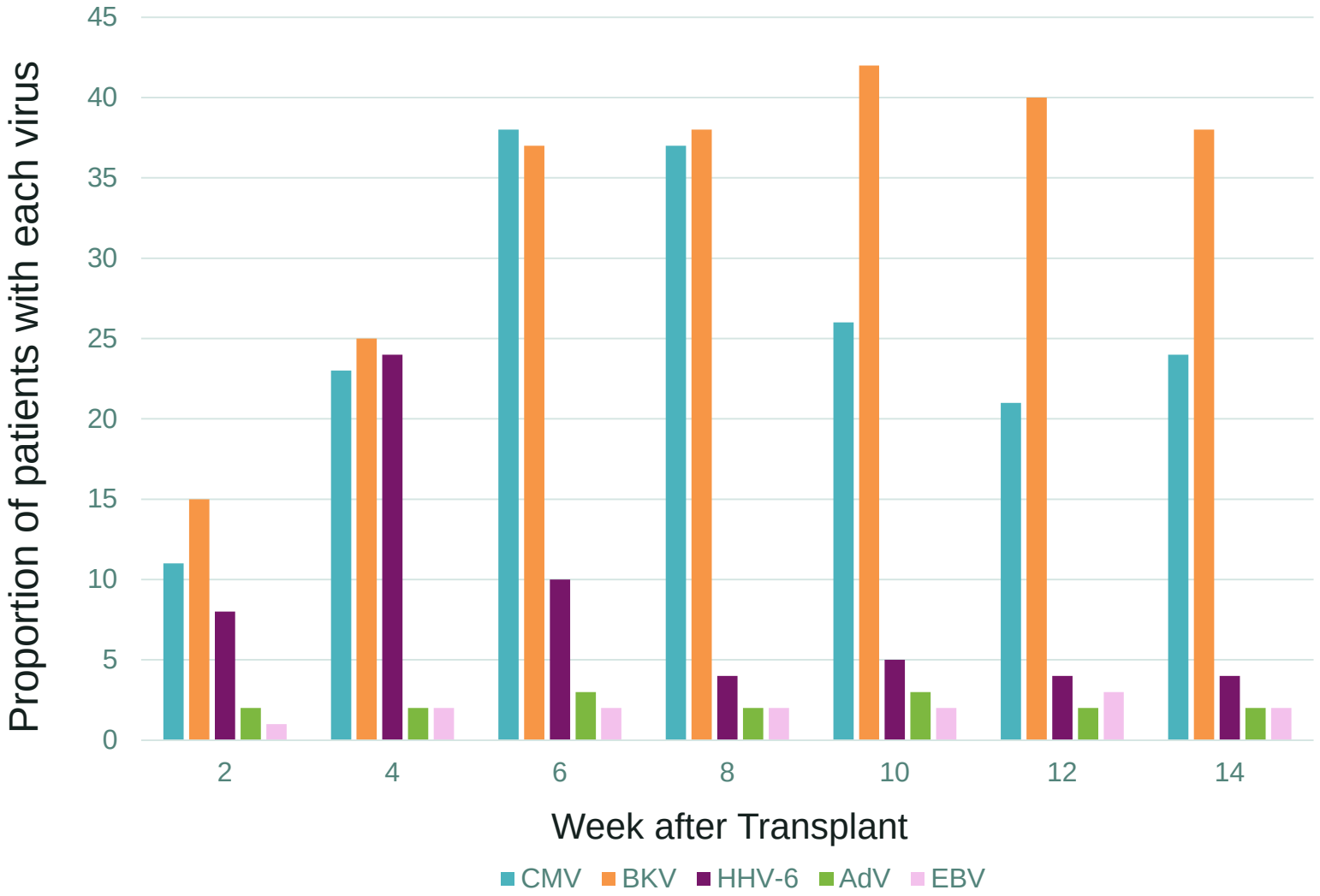
Stem Cell Recipients Are at Risk for Multiple Viral Infections



Cumulative Incidence First 100 Days:

CMV	64%
BKV	54%
HHV-6	47%
AdV	10%
EBV	9%

Hill JA et al. Blood. 2017 Feb 16. pii: blood-2016-10-748426. doi: 10.1182/blood-2016- 10-748426.

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Brincidofovir: Potent Broad Spectrum Antiviral

Viral Family	Virus	BCV	Cidofovir	Maribavir	Letermovir	Ganciclovir*	Foscarnet	Acyclovir
Adenovirus	Adenovirus (AdV)	0.02	1.3	—	>10	4.5-33	Inactive	>100
Polyoma	BK Virus (BKV)	0.13	115	—	—	>200	Inactive	>200
	JC Virus (JCV)	0.045	>0.1	—	—	—	Inactive	—
Papilloma	Human Papillomavirus (HPV)	17	716	—	—	Inactive	—	Inactive
Herpes Viruses	Herpes Simplex Virus 1	0.01	3.0	Inactive	>10	0.7	92-95	3.8
	Herpes Simplex Virus 2	0.02	6.5	Inactive	>10	2.5	91-96	4.4
	Varicella Zoster Virus (VZV, HHV3)	0.0004	0.5	Inactive	>10	1.3	39.8	3.6
	Epstein-Barr Virus (EBV, HHV4)	0.03	65.6	0.63	>10	0.9	<500	6.2
	Cytomegalovirus (CMV, HHV5)	0.001	0.4	0.31	0.005	3.8	50-800	>200
	Human Herpesvirus 6	0.003	2.7	Inactive	>10	5.8	16	10
	Human Herpesvirus 8	0.02	2.6	Inactive	—	8.9	177	>100
Pox	Variola	0.1	27	—	—	—	—	—
	Vaccinia	0.8	46	—	—	>392	Inactive	>144

Potency expressed as EC_{50} = concentration in µM required to reduce viral replication by 50% *in vitro;* "—" indicates no data.
*Valganciclovir is rapidly converted to ganciclovir *in vivo*; ganciclovir is the relevant compound for cell activity studies.
Source: Data are compiled from multiple sources and include multiple materials and methodologies.

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Brincidofovir: Oral & IV Formulations Provide Opportunity to Address Significant Unmet Medical Need

Viral Family	Virus	BCV	
Adenovirus	Adenovirus (AdV)	0.02	>1500 patients treated, AdVise, AdAPT (ongoing)
Polyoma	BK Virus (BKV)	0.13	New data in animal model confirms BCV activity (to be presented at Kidney Week), Ph 2 dose-ranging in planning
	JC Virus (JCV)	0.045	IV BCV achieves higher CNS penetration, increasing need in growing population on biologics
Papilloma	Human Papillomavirus (HPV)	17	Data from expanded access trials
Herpes Viruses	Herpes Simplex Virus 1	0.01	Clearance of acyclovir-resistant HSV-1 after HCT[1]
	Herpes Simplex Virus 2	0.02	Clearance of acyclovir-resistant HSV-2 after HCT[2]
	Varicella Zoster Virus (VZV, HHV3)	0.0004	Prevention demonstrated post HCT[3]
	Epstein-Barr Virus (EBV, HHV4)	0.03	Viremia after HCT increases risk of PTLD
	Cytomegalovirus (CMV, HHV5)	0.001	Antiviral activity demonstrated in Ph 2[4] and Ph 3[5] trials
	Human Herpesvirus 6	0.003	Common cause of encephalitis in high-risk HCT recipients[6]
	Human Herpesvirus 8	0.02	
Pox	Variola	0.1	Ongoing pivotal animal studies in collaboration with BARDA
	Vaccinia	0.8	Disseminated vaccinia cleared with BCV treatment[7]

1. Voight S et al. Transpl Infect Dis 2016;18:791–794
2. El-Haddad D et al. Antiviral Res. 2016;134:58-62.
3. Lee YJ et al. Transpl Infect Dis. 2018 Aug 18:e12977. doi: 10.1111/tid.12977. [Epub ahead of print]
4. Marty FM et al. N Engl J Med. 2013;369:1227-1236.
5. Marty FM et al. Biol Blood Marrow Transplant 2016;22(3):S23.
6. Ogata M et al. Bone Marrow Transplant. 2015;50:1030-6.
7. Lederman E et al. J Infect Dis. 2012;206:1372-85.

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Multiple Key Milestones Expected in 2018 and 2019

- AdAPT trial of **oral BCV for adenovirus**: full enrollment expected in 2019
  - If positive, data should support first regulatory approval in EU and US
  - AdVance data support the virologic primary endpoint and demonstrate clinical impact of AdV viral burden
- **IV BCV initiating** Phase 2 patient studies in US, UK and Europe with interim data in 2H2018
  - Multi-viral prevention remains an unmet need in high-risk HCT, and longer duration of protection may be supported by the improved tolerability of IV BCV
  - Dose-ranging studies for multiple DNA viruses including BKV, CMV, HHV-6 under discussion
- Efficacy data expected in 2019 from animal model studies in smallpox

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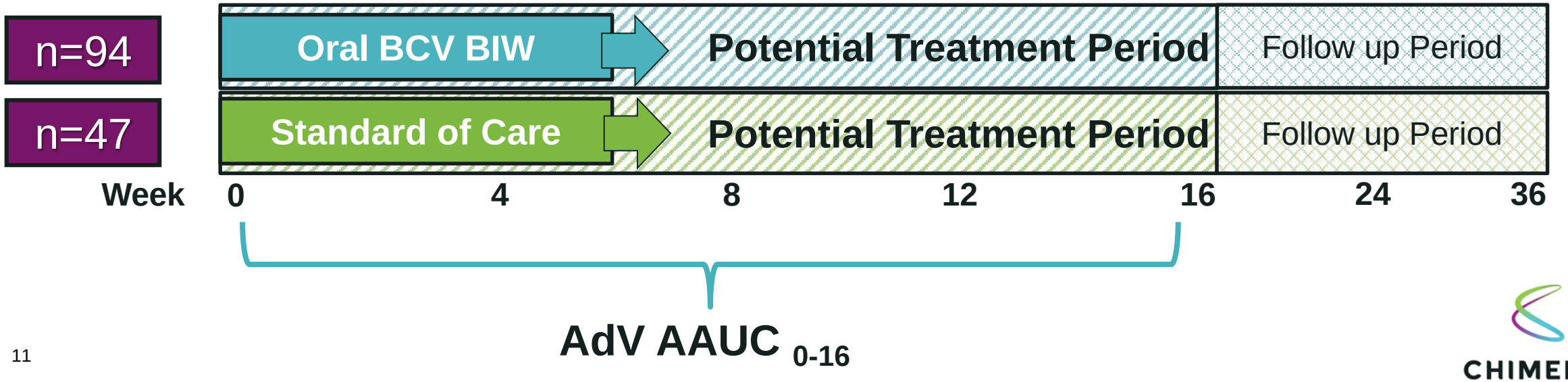
AdAPT: Adenovirus after Allogeneic Pediatric Transplantation

- **Open label, comparative study of oral BCV vs. standard of care (SoC) in AdV viremia**
  - Pediatric T-cell depleted allo-HCT recipients in 1st 100 days of HCT with AdV ≥1000 copies/mL
- **Short course therapy: "Treat-to-clear" paradigm**
  - BCV (or SoC) administered until AdV is cleared from plasma
- **Primary endpoint: AdV Average Area Under the Curve over 16 weeks (AdV $AAUC_{0\text{-}16}$)**
  - Powered to detect 0.6 $\log_{10}$ difference in AdV $AAUC_{0\text{-}16}$
- **Small study: N=141 (2:1 randomization)**



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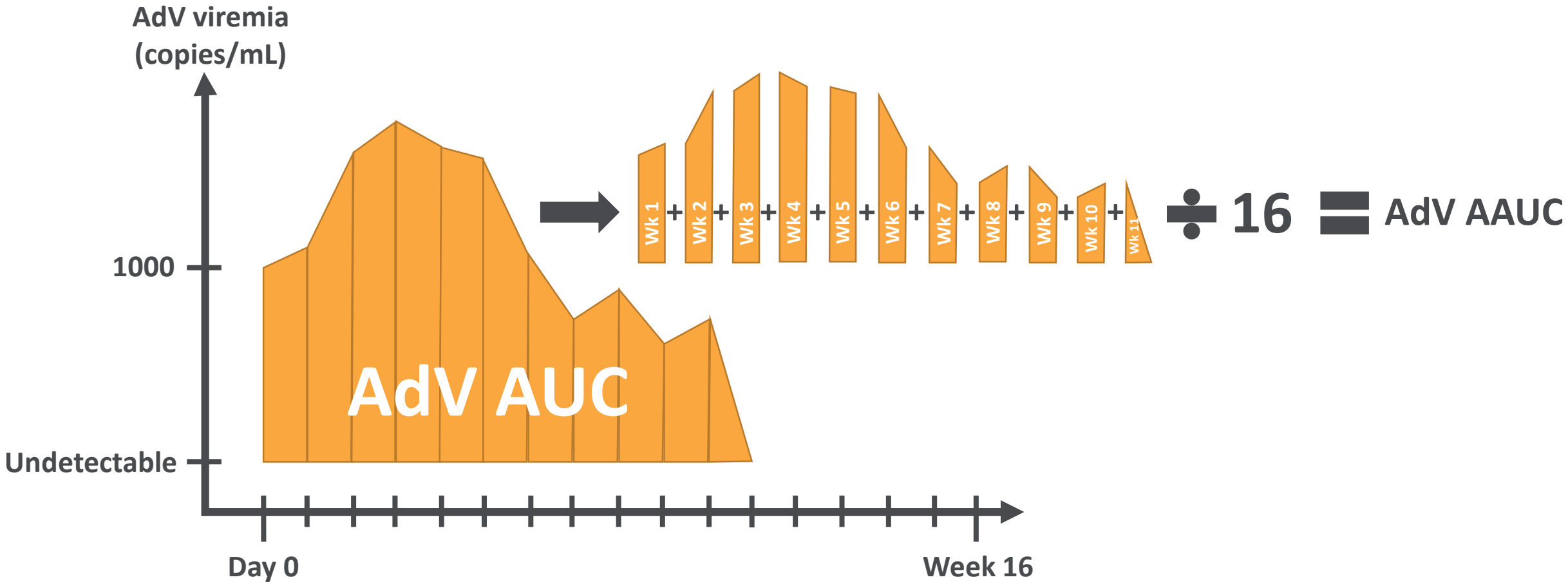
The AdVance Study

- AdVance is a landmark study: the largest multicenter, multinational study of the incidence, management, and clinical outcomes of AdV infection in allo-HCT recipients
- AdVance represents current standard of care
  - Data were collected from allo-HCT transplants that occurred between January 2013 and September 2015 at 50 participating centers

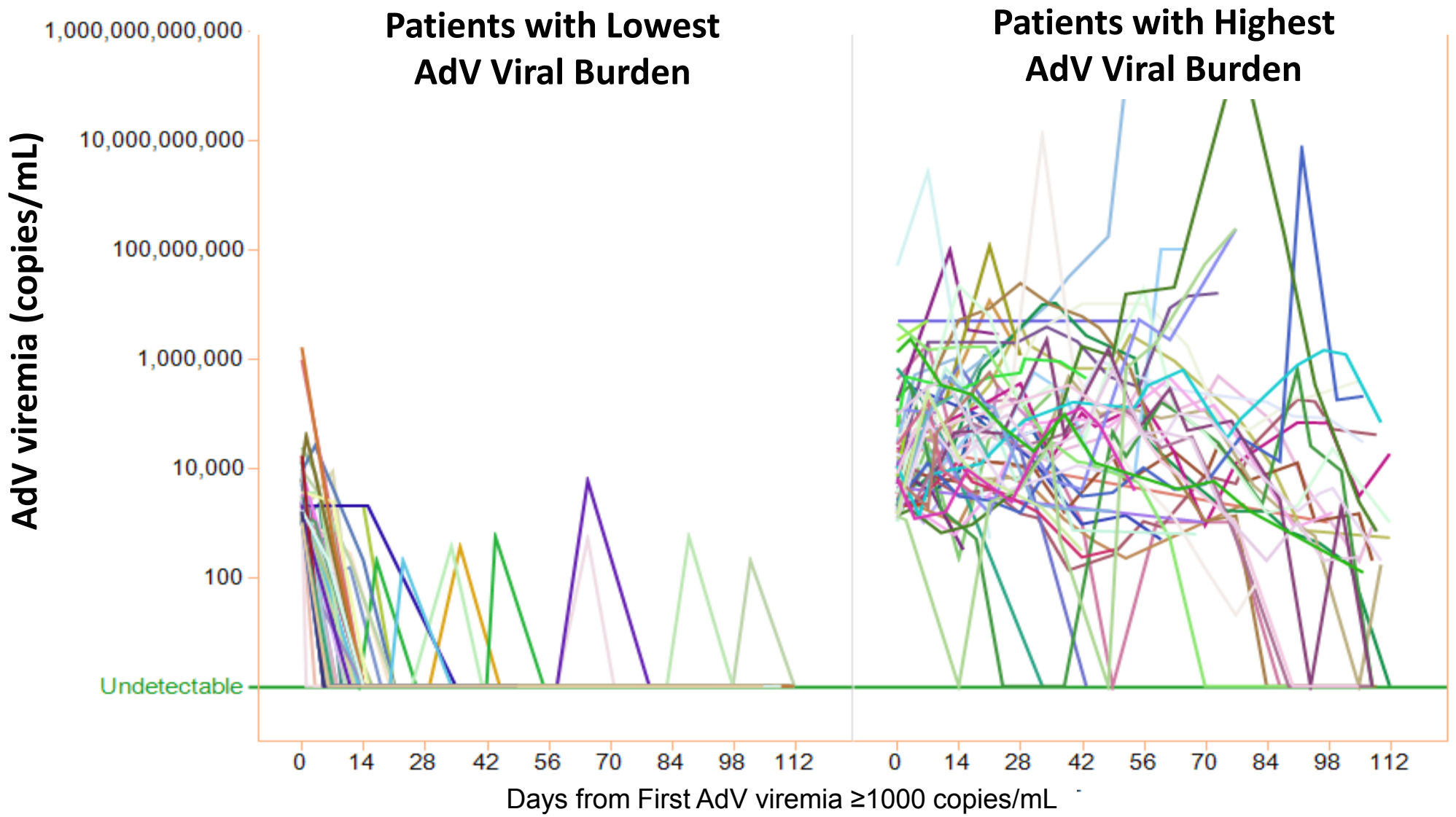
ADVANCE

Calculating AdV Average Viral Burden = AdV $AAUC_{0\text{-}16}$



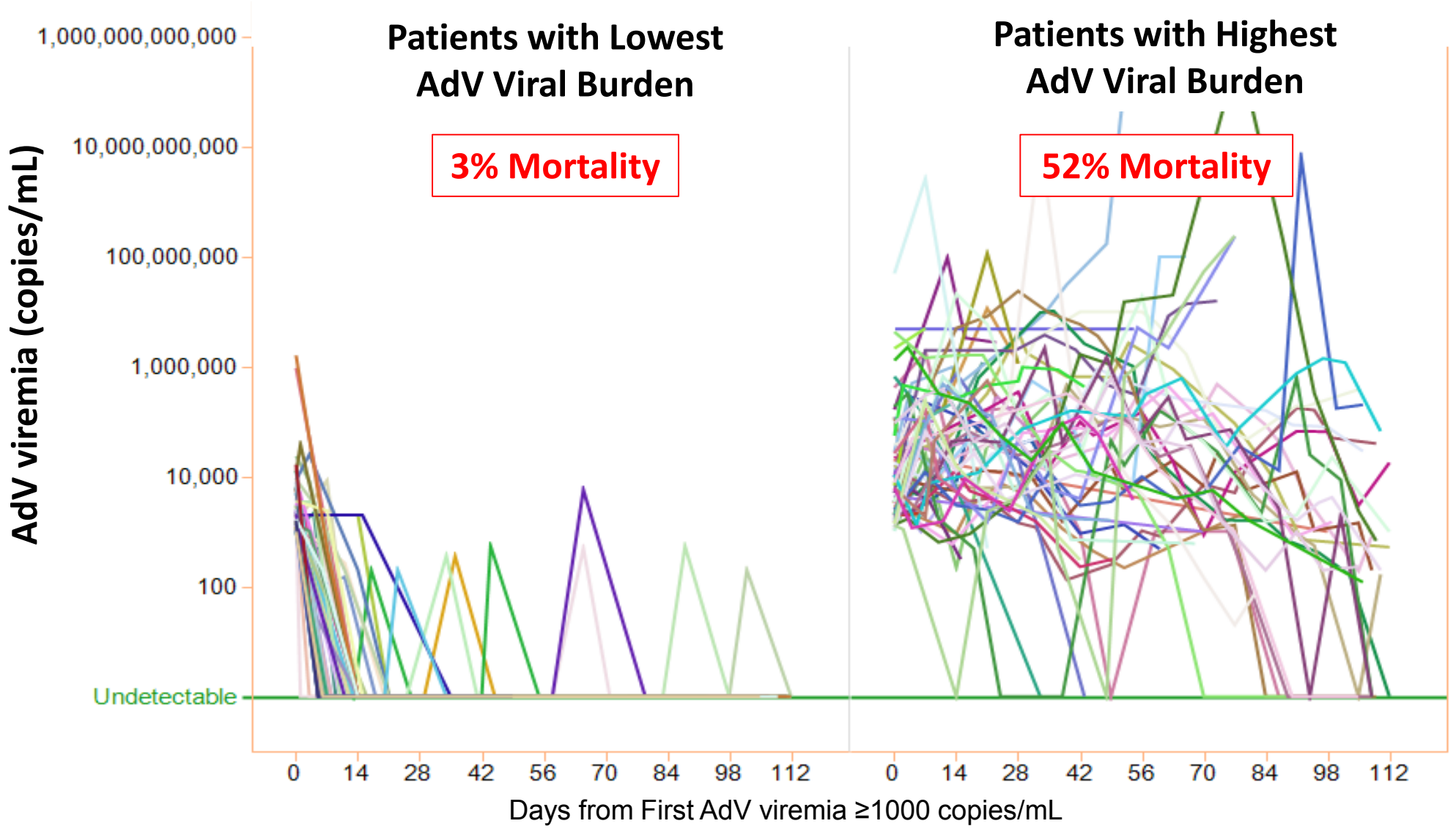
ADVANCE

High and Persistent AdV Viral Loads → Increased AdV $AAUC_{0\text{-}16}$



ADVANCE

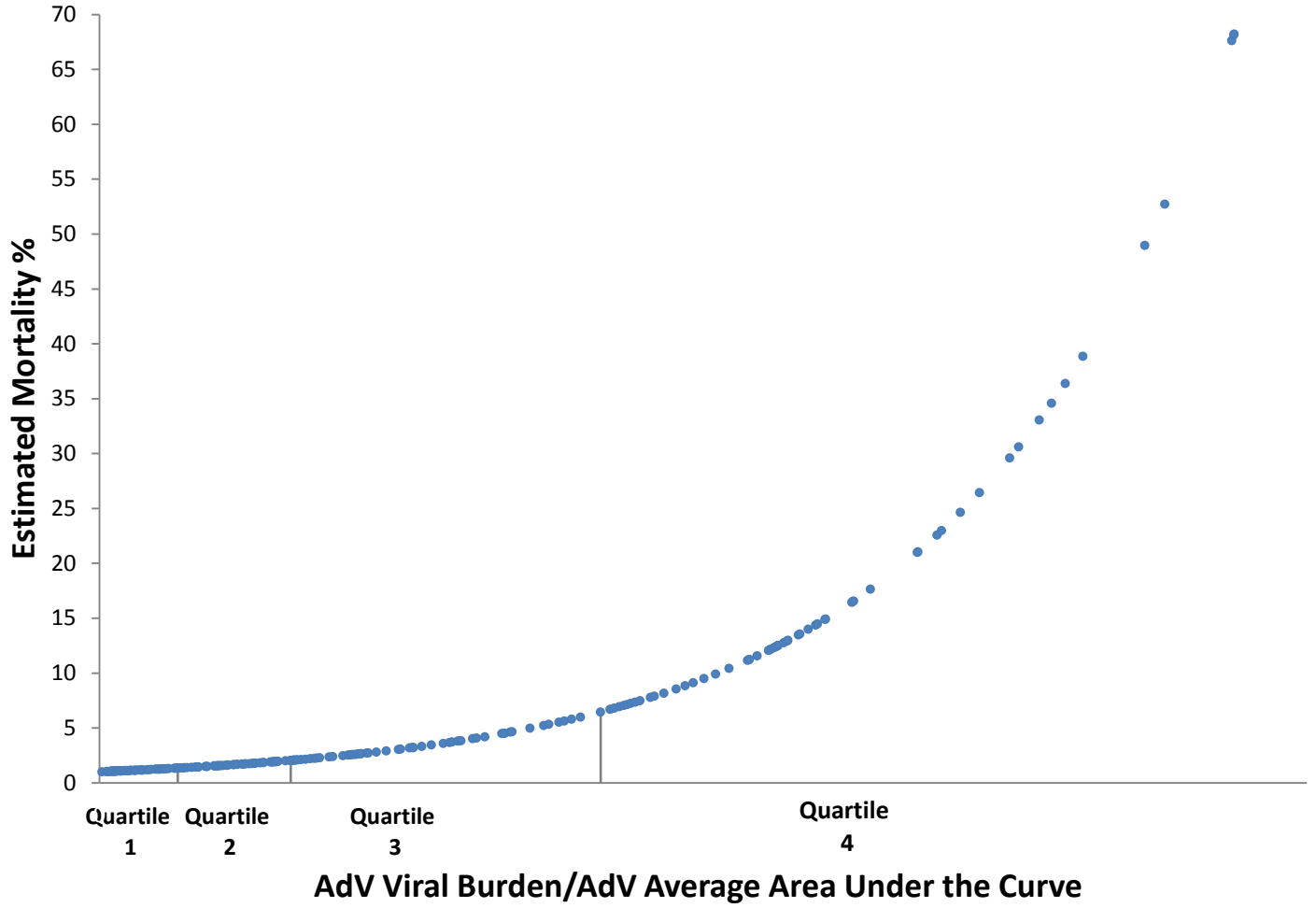
Higher AdV $AAUC_{0\text{-}16}$ Correlates with Higher Mortality



ADVANCE

Higher AdV Viral Burden Correlates with Higher Mortality

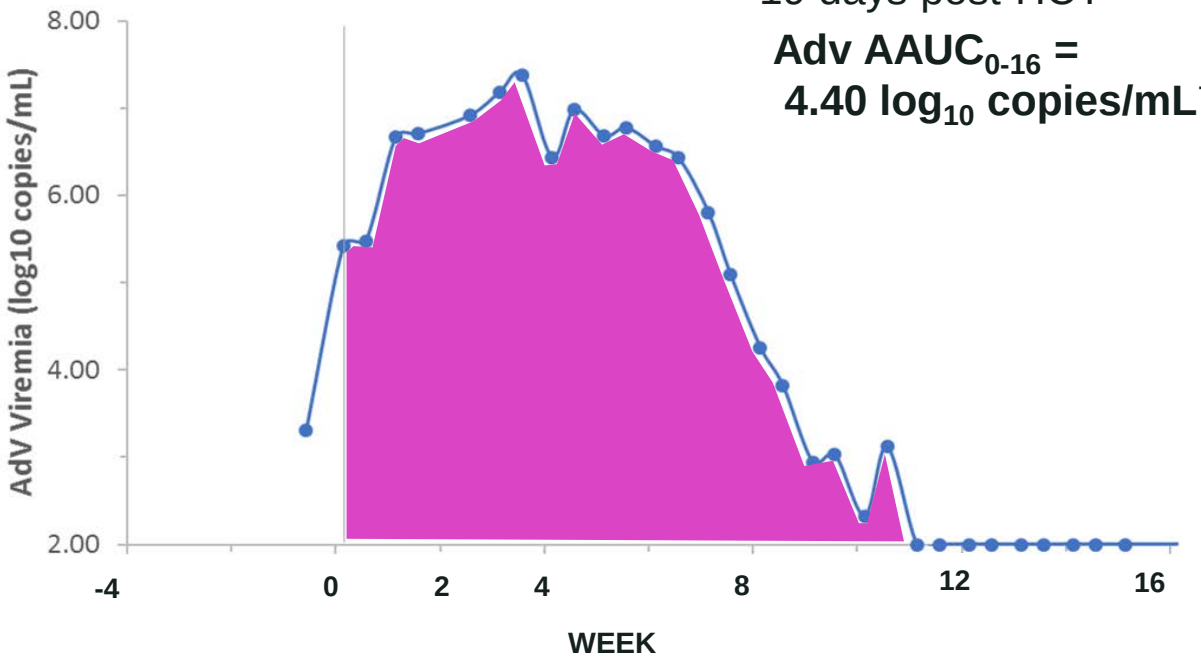
- Each dot on curve represents an individual, with their AdV AAUC plotted against their estimated mortality
- Important to note: patients received current standard of care
- Each tenfold increase in AdV $AAUC_{0\text{-}16}$ doubles the risk of mortality
- Implication: better control of AdV viremia should decrease mortality due to AdV



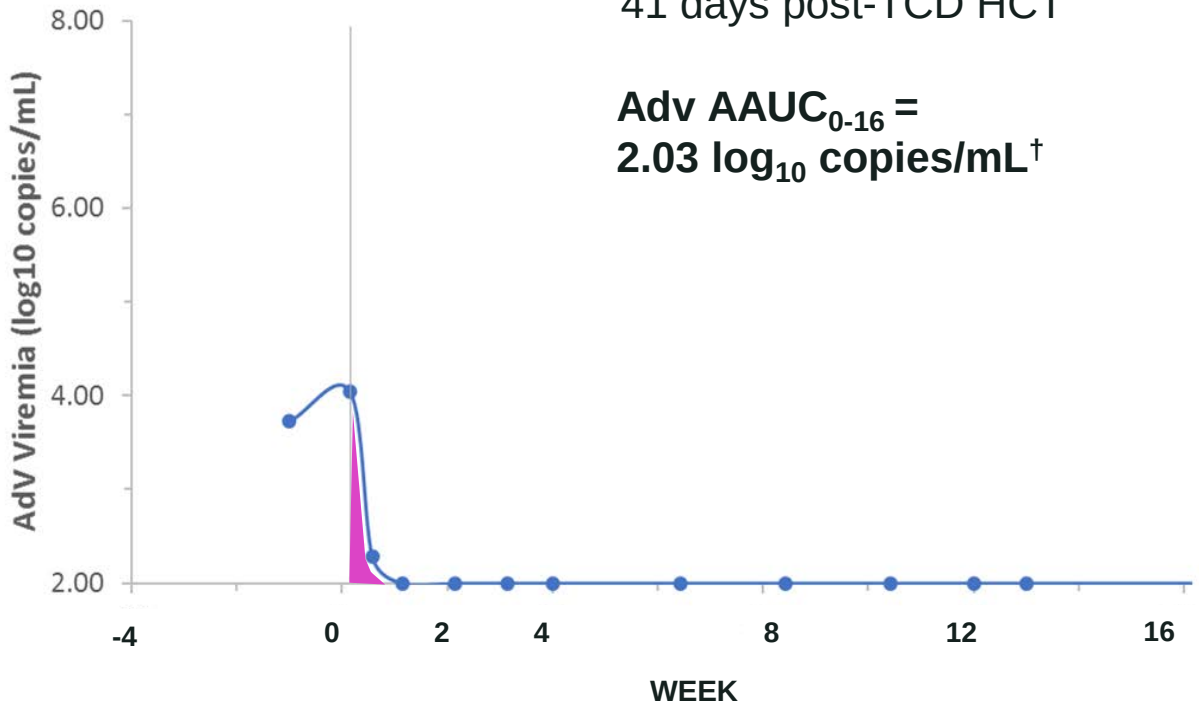
ADVANCE

AdAPT Is Designed for Success

Local Standard of Care (SoC) from AdVance*
2 yr old pt
19 days post-HCT
Adv AAUC$_{0\text{-}16}$ = 4.40 log$_{10}$ copies/mL†



Oral BCV from AdVise
3 yr old pt
41 days post-TCD HCT
Adv AAUC$_{0\text{-}16}$ = 2.03 log$_{10}$ copies/mL†



Modeled control – modeled BCV = potential difference in AdAPT
4.40 - 2.03 = 2.37 log$_{10}$

*Local standard-of-care may include reduction of immunosuppressants or off-label IV cidofovir
† Lower limit of detection: 2 log$_{10}$ copies/mL

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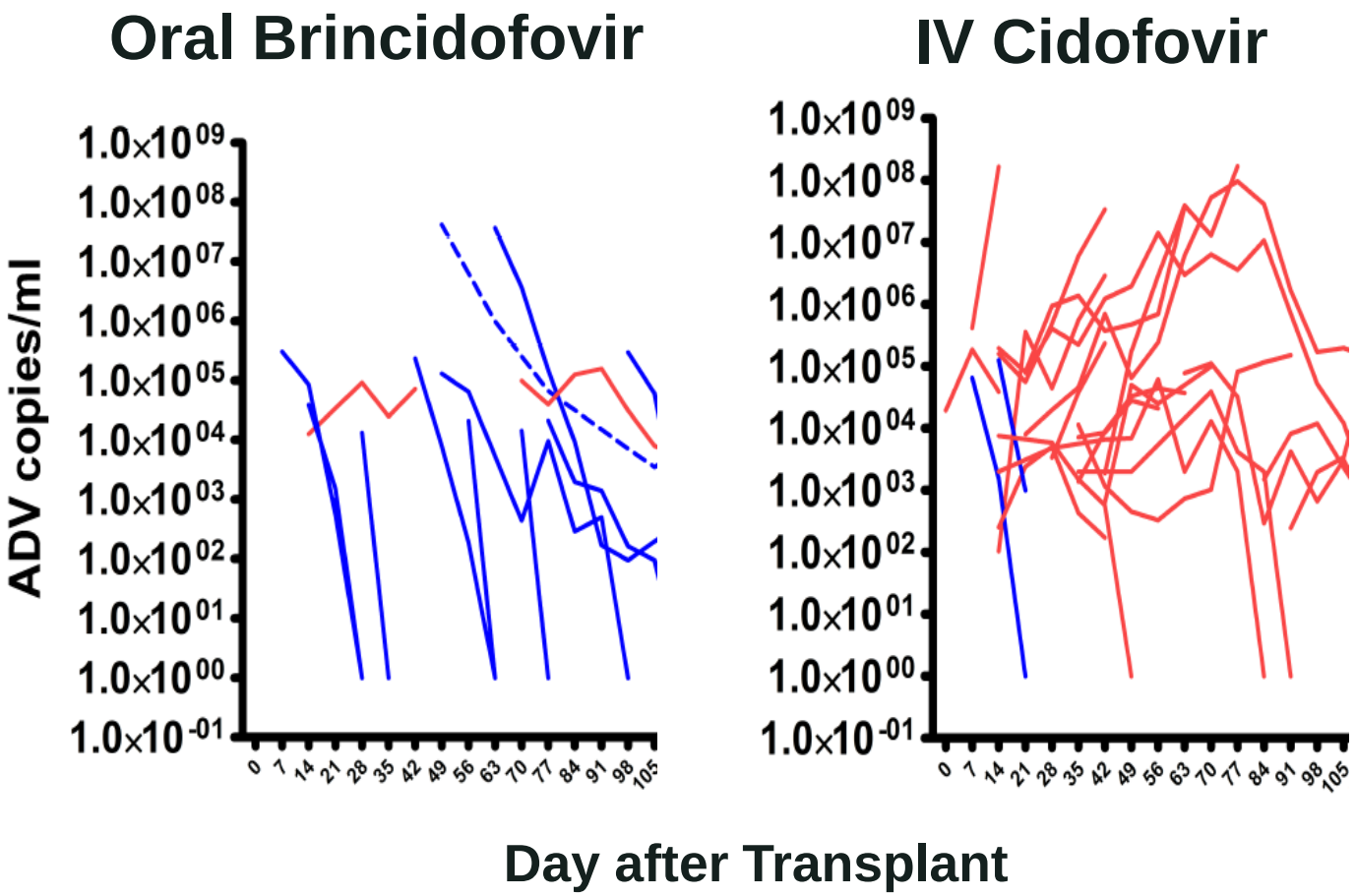
Rapid AdV Plasma Clearance and Tolerability Differentiates Oral BCV from Off-Label IV Cidofovir



- 80% of pediatric HCT patients cleared with BCV (median 4 wks)
  - Only 35% cleared with IV CDV (median 9 wks)
- Differences were greatest in first 100 days post-HCT (before immune reconstitution)
- Differentiated tolerability:
  - With short course therapy only 1/18 discontinued BCV for GI AEs
  - Cidofovir: renal toxicity observed in 9/23 patients

Adapted from Hiwarkar P et al. Blood 2017 Feb 2. pii: blood-2016-11-749721. doi: 10.1182/blood-2016-11-749721.

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Maximizing the Probability of Success for AdAPT

- Study design incorporates key learnings for oral brincidofovir:
  - Includes highest risk patients: pediatric recipients of T-cell depleted HCT prior to immune reconstitution
  - Short-course oral BCV therapy begun within the first three weeks of adenoviremia
    - Rapidly clears virus
    - Minimizes side effects
  - Primary endpoint is AdV burden over time, the most sensitive measure to differentiate the antiviral effect of oral BCV from SoC
  - >90% power to show superiority of brincidofovir to local SoC
  - Open-label study – randomized but not blinded

- Study sites are experienced with BCV, prospectively monitor for AdV and have expertise in treating AdV infections in high-risk patient populations

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AdAPT Could Provide Regulatory Decisions in EU and US

- EU: AdAPT was designed together with European regulators who have supported the use of a virologic endpoint for this small, randomized trial
- US: FDA considers AdAPT a Phase 2 study; however, there are ample precedents in which virologic endpoints have been accepted for accelerated approvals
  - CMV virologic endpoint accepted by FDA in October 2017 after multiple independent datasets confirmed correlation with clinical endpoints
  - AdVance provides first of multiple independent datasets to be published confirming strong correlation of AdV $AAUC_{0\text{-}16}$ with survival
  - Type C meeting to be requested to discuss growing body of data supporting virologic endpoint for adenovirus
- Use of “real world data” now a focus in US and EU
  - Over 1500 patients have been treated with oral brinci for adenovirus infection

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IV BCV: Fulfilling the Potential for Prevention and Treatment

Early development work shows great promise for the IV formulation

Delivers uniform exposure	→	**Should allow longer duration of therapy with improved tolerability**
Delivers more drug to difficult-to-reach compartments, especially the brain	→	**Supports evaluation for viral brain infections, such as HHV6 encephalitis or JC virus**
Potential for once-weekly dosing	→	**Convenience with improved tolerability**

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IV BCV Multiple Dose Study Demonstrates Improved Tolerability

- MAD dosing complete: 10 mg twice weekly, 20 mg once weekly for 2-4 weeks
  - No diarrhea at 10 mg IV twice weekly
    - IV BCV 10 mg provided plasma drug levels equivalent to oral BCV 100 mg which demonstrated antiviral activity in prior studies
  - No dose-limiting clinical adverse events

- Phase 2 patient studies initiating in the US, UK and Europe
  - Confirm AdV viral decay curves, PK and tolerability of multiple doses in adult HCT recipients
  - Interim data expected 2H 2018

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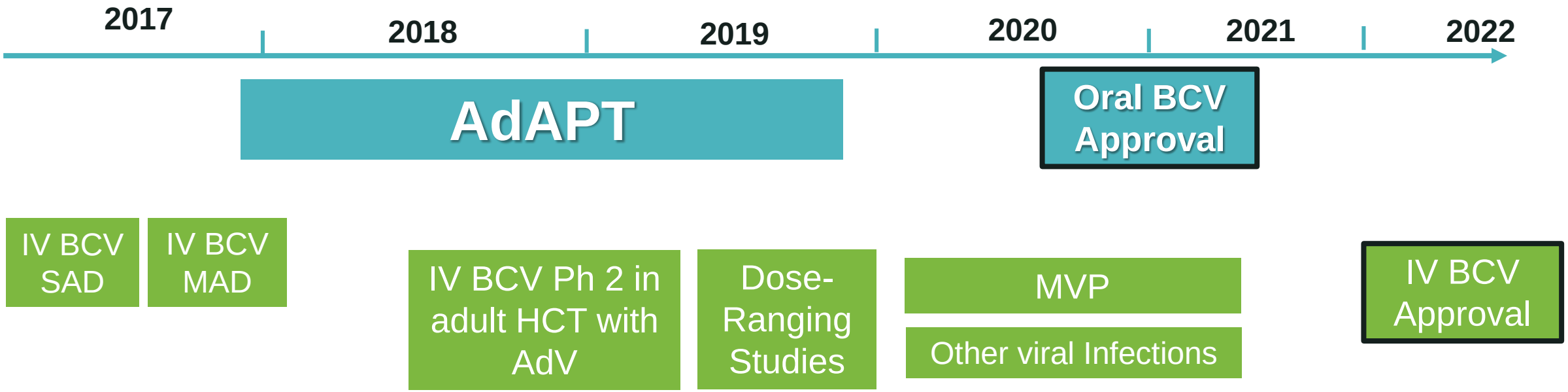
Anticipated Brincidofovir Milestones and Regulatory Decisions



- Open-label Phase 2 IV BCV studies in adult patients to read out in 2H 2018/early 2019
- IV BCV dose-ranging studies in other serious viral infections including BKV and HHV-6
- IV BCV offers the promise of longer duration dosing for prevention of multi-viral infection

All timelines are estimated

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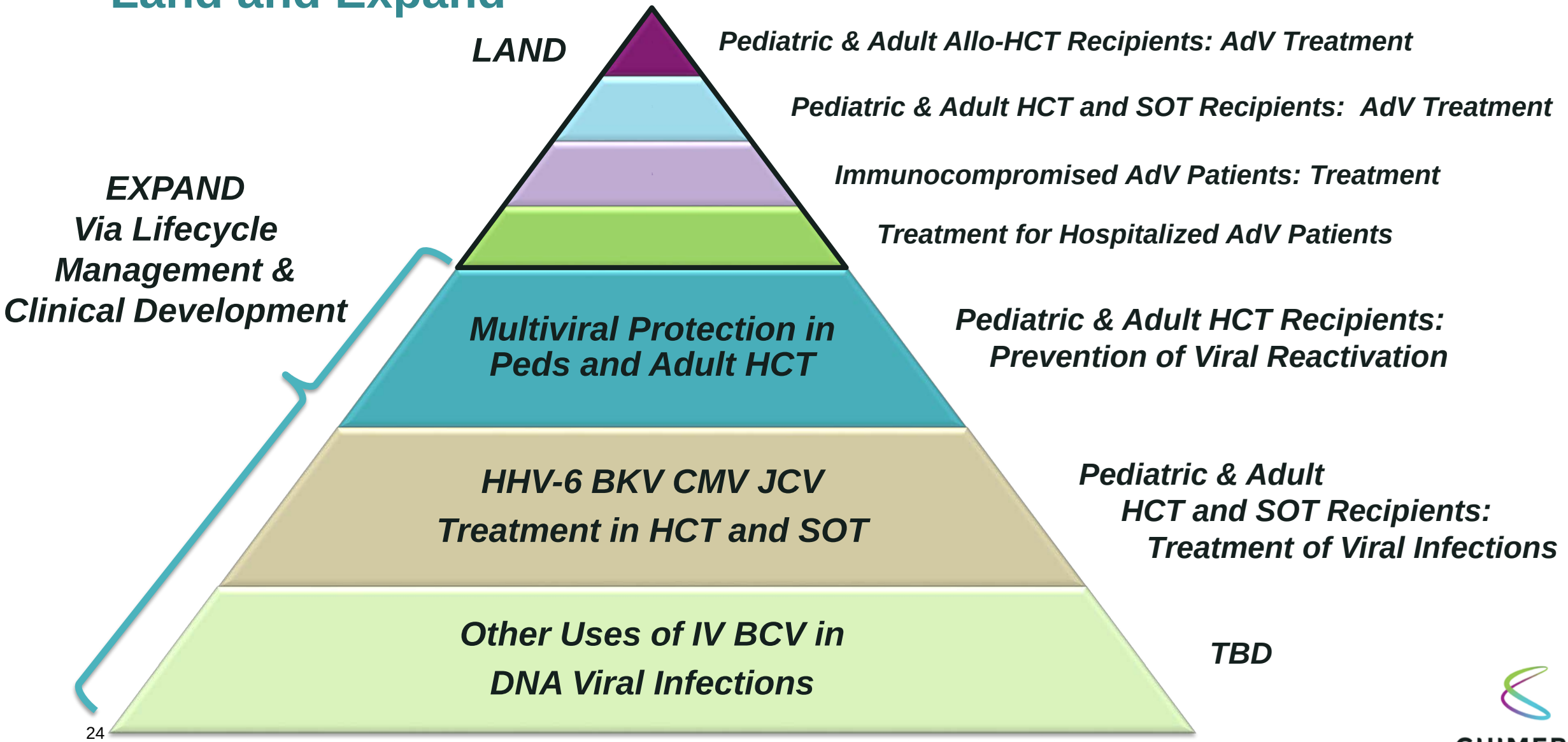
Building Full Potential Value for Oral and IV Brincidofovir: "Land and Expand"



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BCV Market Potential: Global Opportunities in Stem Cell and Solid Organ Transplant





TRANSPLANTS PER YEAR (population)	US (320M)	EU (550M)	Japan (130M)	ROW	Total
HCT					
Allogeneic	8,700	16,400	3,700	6,454	35,254
Autologous	15,000	21,700	1,800	4,715	43,215
HCT TOTALS	23,700	38,100	5,500	11,169	78,469
SOT					
Kidney	19,860	20,000	1,648	39,052	80,560
Liver	7,800	7,400	438	10,062	25,700
Other SOT	5,940	4,500	124	1,276	11,840
SOT TOTALS	33,600	31,900	2,210	50,390	118,100
TOTAL TRANSPLANT	57,300	70,000	7,710	61,559	196,569

US HCT: 2015 figures from CIBMTR. Auto-HCT are increased by 20% to account for under-reporting to CIBMTR. US SOT: 2016 figures from Organ Procurement and Transplantation Network (OPTN)
EU HCT: JR Passweg, et al., HCT in Europe 2014, nature.com/bmt, 2016. ROW HCT: 2013 figures from EBMT Activity Office (Bone Marrow Transplantation 2015 (50);476-482)
Japan: Clarivate Japan assessment (HCT for 2015; Kidney/Liver for 2016; Other SOT for 2015)

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Brincidofovir: Oral Antiviral With Demonstrated Activity Against Smallpox

- Oral BCV has demonstrated survival benefit in two animal models of fatal orthopoxvirus infections:
  1. Rabbitpox virus model: 100% survival demonstrated in animals that received immediate treatment with brincidofovir. Results from this study to be submitted to FDA as “weight of the evidence” with NDA. Adjunct rabbit pox study to be completed 2019.
  2. Mouse pox / ectromelia replicates respiratory infection route of human smallpox infection. Pivotal mouse pox study to be completed in 2019.

- Regulatory submissions planned for late 2019/early 2020

- Procurement opportunities being pursued in the US via BARDA, or following approval in Europe/ROW

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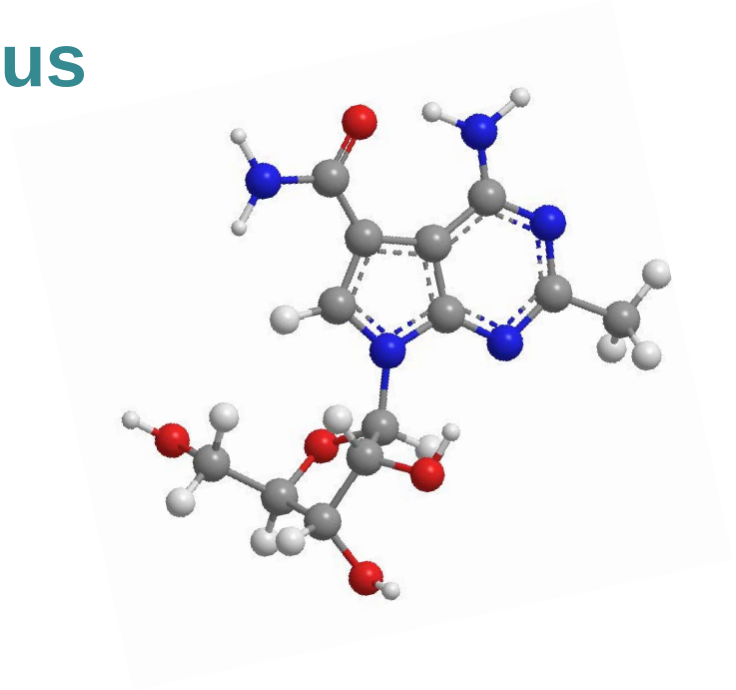
CMX521: a Small Molecule Antiviral for Norovirus



- Nucleoside with pan-genotype activity
  - Targets region of virus that is common to all strains
- Safety profile looks very promising
  - In vitro and in vivo
  - Phase 1 data to be presented at ESCV in September
- Patent protection until 2036
- No approved agents for prevention or treatment

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Two Distinct Segments for Norovirus Opportunity Identified

Worldwide: ~700 MM cases of norovirus each year (~20 MM in U.S.)

- **Treatment** of **Chronic** Norovirus Infection
  - Allogeneic stem cell transplant recipients
  - Solid Organ transplant recipients
  - Other immunocompromised patients
  - Asymptomatic shedders
    - Put others at-risk in public settings
    - Food handlers, hospital or healthcare worker

- **Prevention** of **Acute** Norovirus Infection
  - At-risk individuals who have been exposed to a *confirmed* case of norovirus, e.g. family members, hospital or healthcare workers, co-workers, students
  - Individuals who may be at-risk due to a local outbreak without confirmed exposure
  - Individuals who elect to or need to be protected from a potential outbreak

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CMRX: Four Active Clinical Programs in 2018

Program	Indication	Pre-clinical	Phase 1	Phase 2	Phase 3	Status	Anticipated Approval
Short-course Oral BCV	AdV Treatment					AdAPT enrolling	2021
	Smallpox					Animal Rule models progressing	2020
IV BCV	Multi-viral Prevention					Ph 2 initiated	2022
CMX521	Norovirus					Ph 1 initiated	2023

- Chimerix remains well-capitalized with $196M at the end of 2Q2018
- Patent protection into 2034 for brincidofovir, and 2036 for CMX521

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Q&A

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