CHIMERIX

1Q2018 EARNINGS CALL
MAY 7, 2018

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 March 31, 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.

CHIMERIX

Data-Rich 2018 and 2019 Ahead of Regulatory Decisions

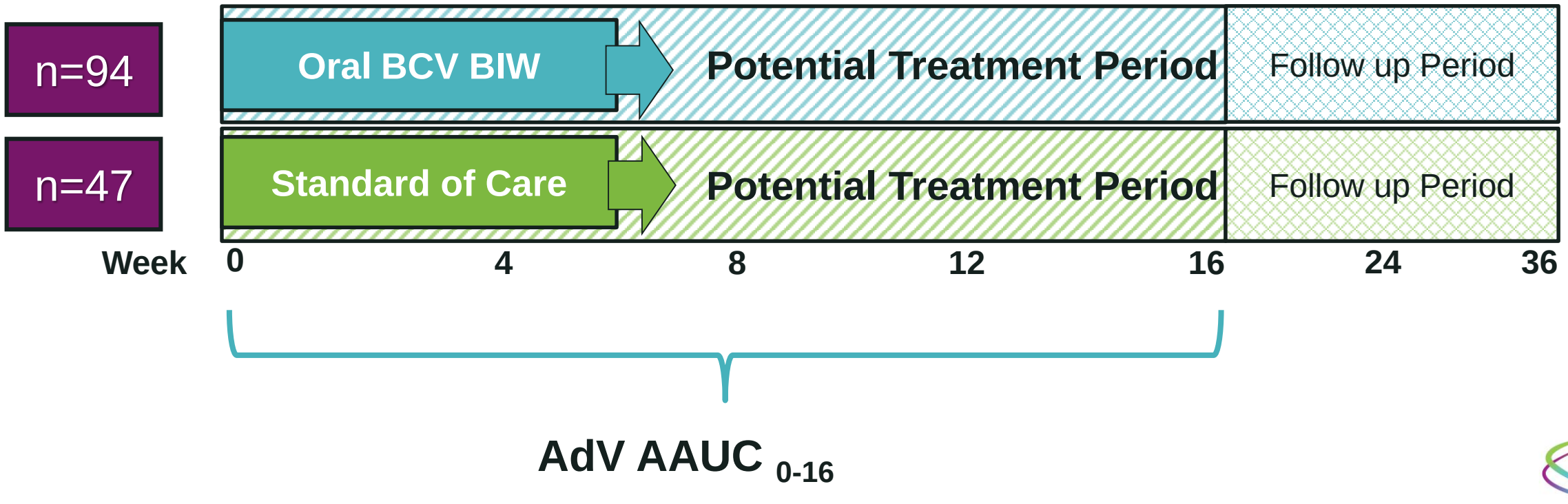
Compound	Indication	1H 2018	2H 2018	2019
Oral BCV	Adenovirus	❖ Enrolling AdAPT ❖ AdVance Data	❖ Enrolling AdAPT	❖ Enrolling AdAPT ❖ **AdAPT Data**
	Smallpox	❖ Agree pivotal mouse study	❖ Pivotal mouse study ❖ Pivotal rabbit study	❖ MAA submission ❖ NDA submission
IV BCV	Adenovirus and CMV	❖ Initiate Phase 2 in adult HCT	❖ Phase 2 in adult HCT	❖ Initiate MVP pivotal trial
CMX521	Treatment of Chronic Norovirus	❖ Ph 1 single dose study	❖ Ph 1 multiple dose study	❖ Norovirus: Challenge / Proof-of-Concept trial
	Prevention of Norovirus Outbreaks			

CHIMERIX

AdAPT: Adenovirus after Allogeneic Pediatric Transplantation

Primary endpoint:

AdV Average Area Under the Curve over 16 weeks = AdV $AAUC_{0\text{-}16}$



CHIMERIX

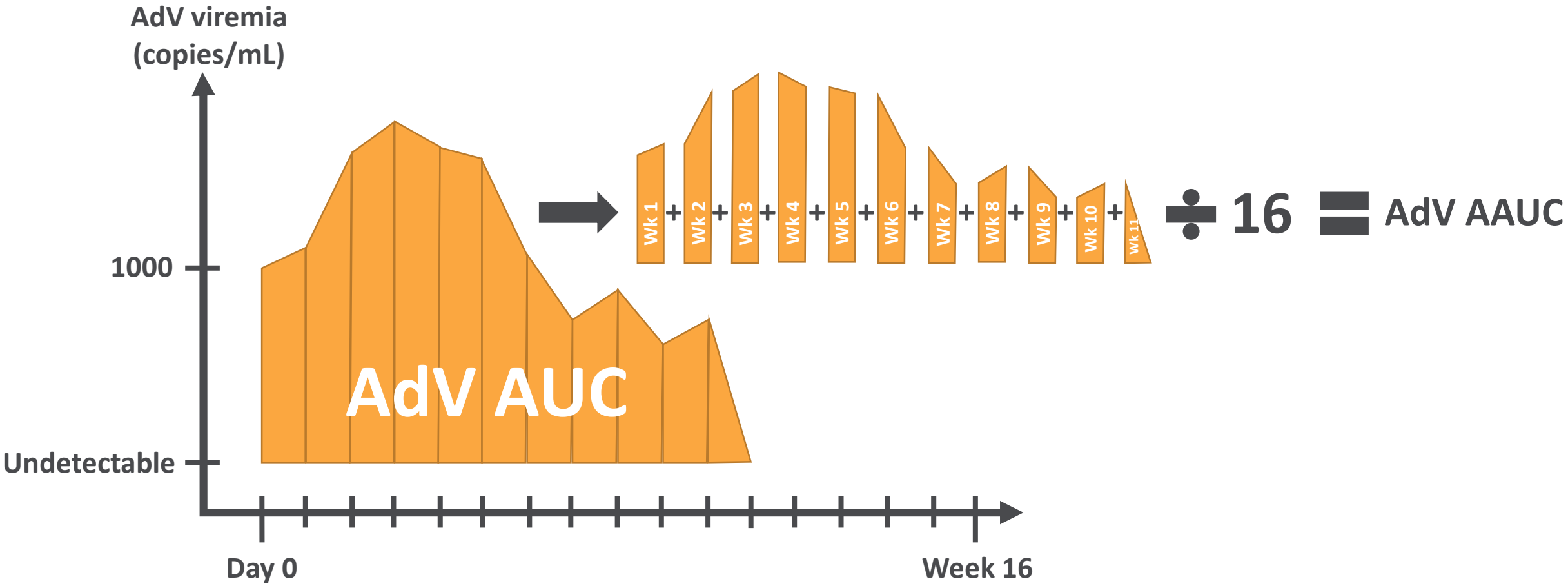
The AdVance Study

- AdVance is 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

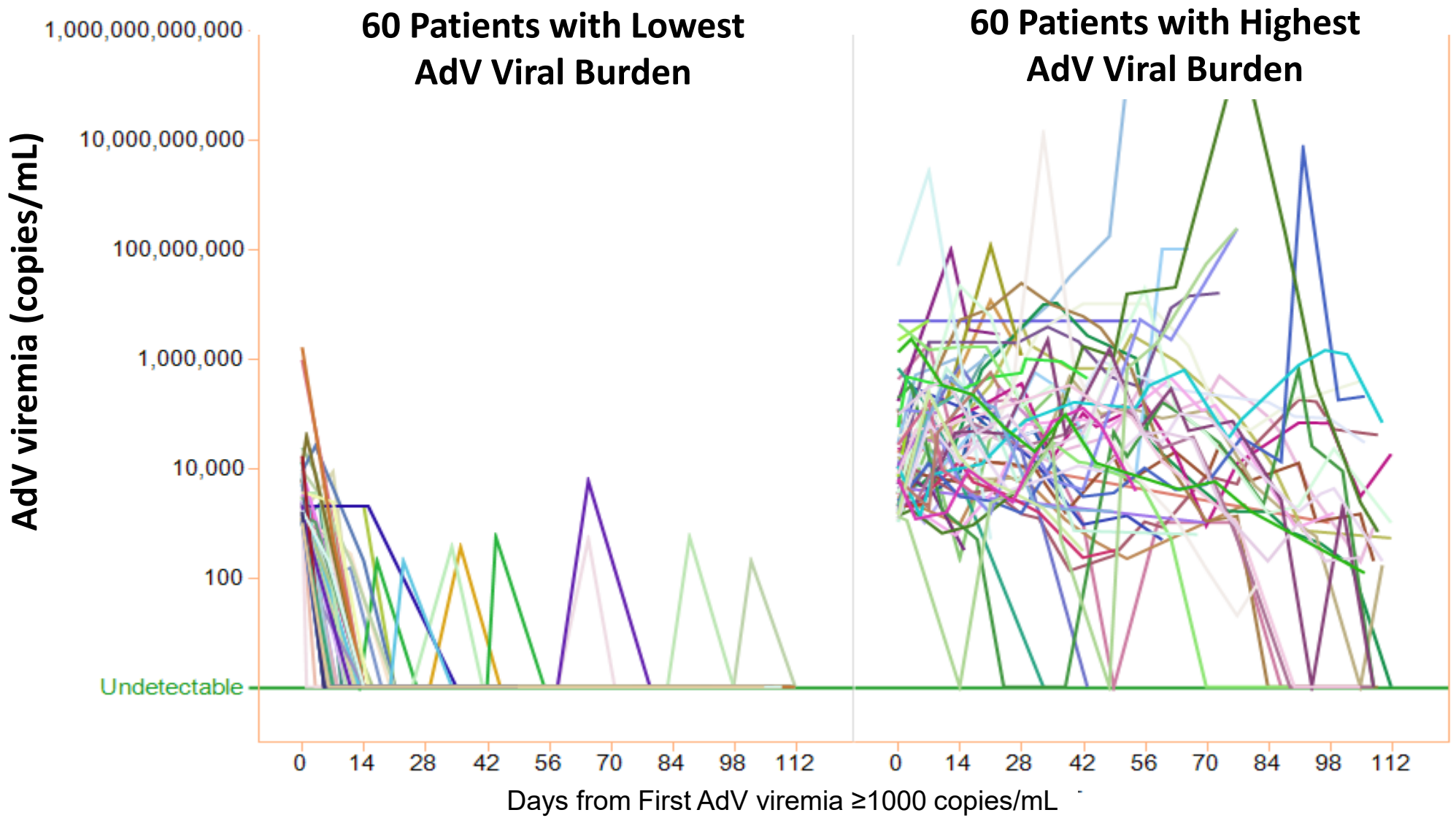
ADVANCE

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



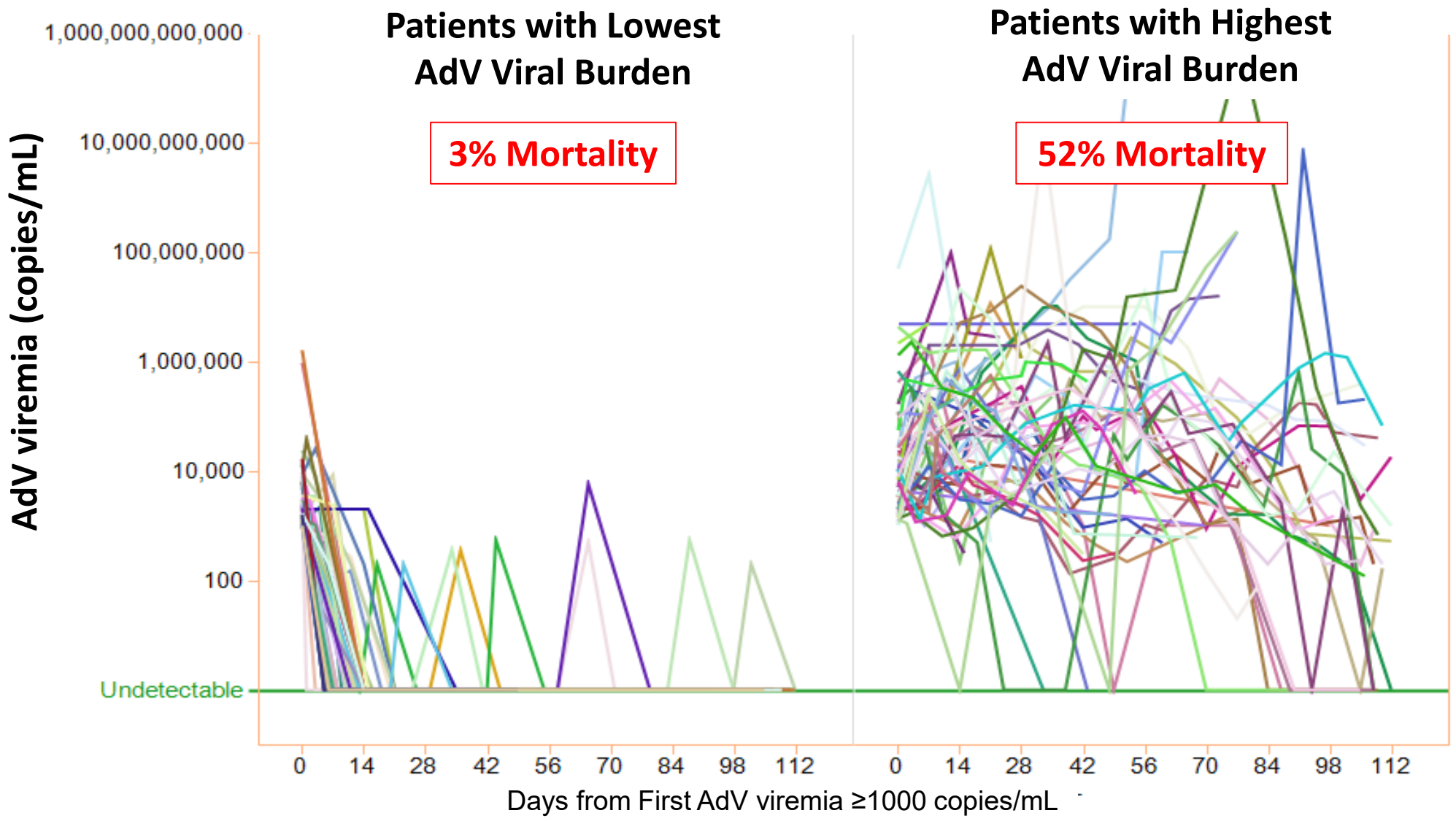
ADVANCE

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



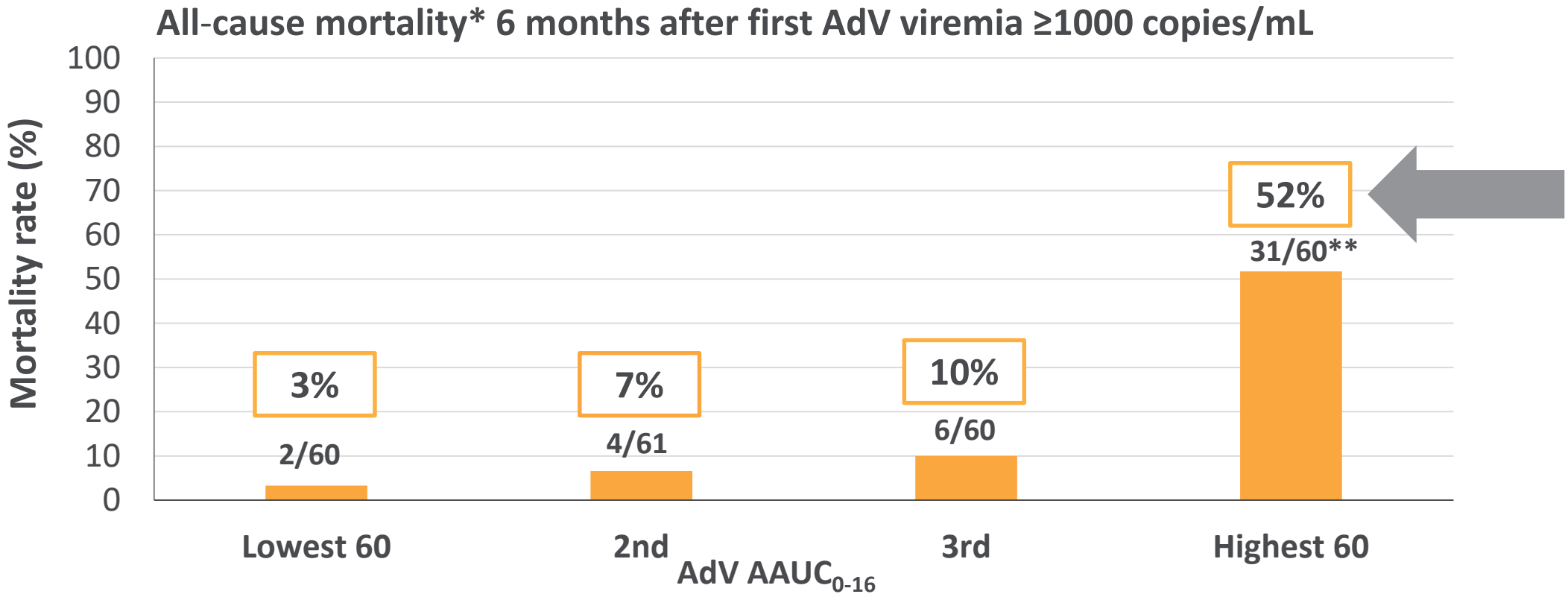
ADVANCE

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



ADVANCE

AdV Viral Burden Correlates with Higher Mortality



*Of the children who died, 79% (34/43) still had AdV viremia at the last measurement

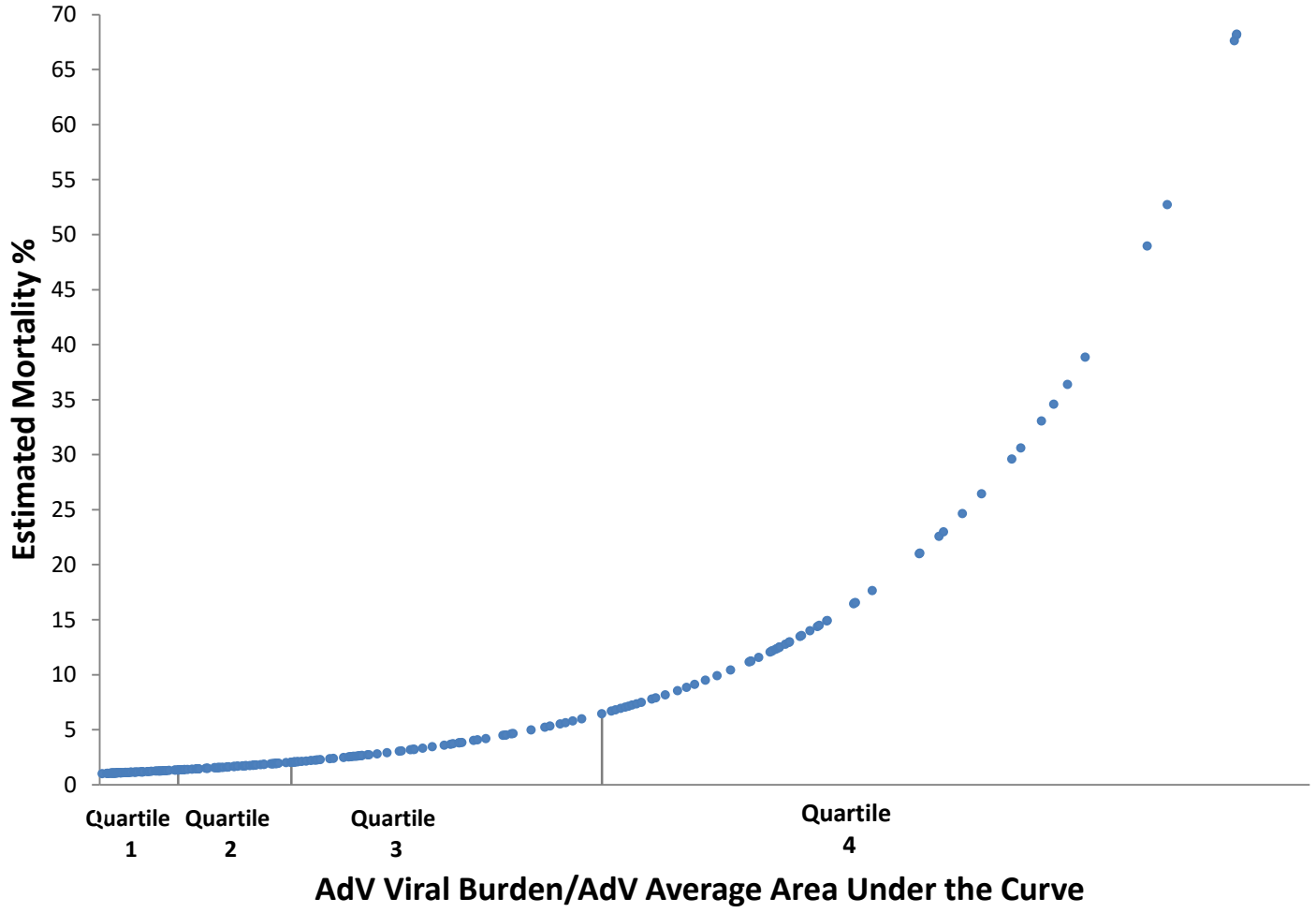
**In those with the highest AdV AAUC, 97% (30/31) of the children who died still had AdV viremia at the last measurement

M. Zecca et al EBMT 2018, Lisbon, Portugal

ADVANCE

Higher AdV Viral Burden Correlates with Higher Mortality

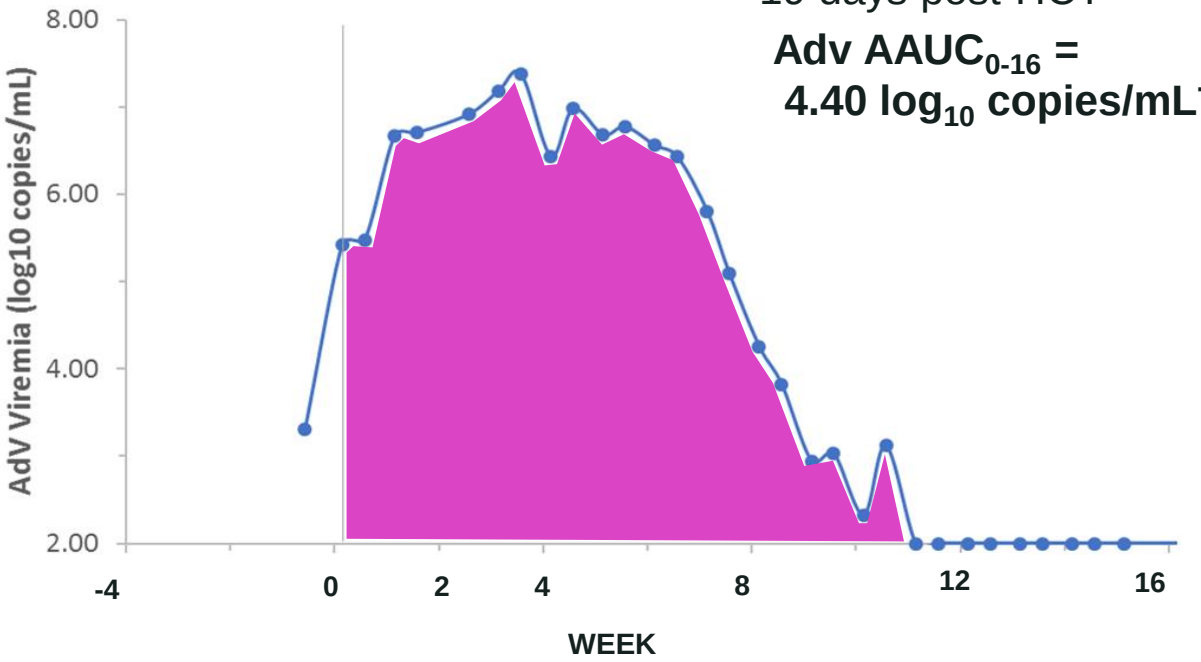
- Each dot on curve represents an individual, with their AdV AAUC plotted against their estimated mortality
- Important to note: patients received current standard of care
- Each tenfold increase in AdV $AAUC_{0\text{-}16}$ doubles the risk of mortality
- Implication: better control of AdV viremia should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



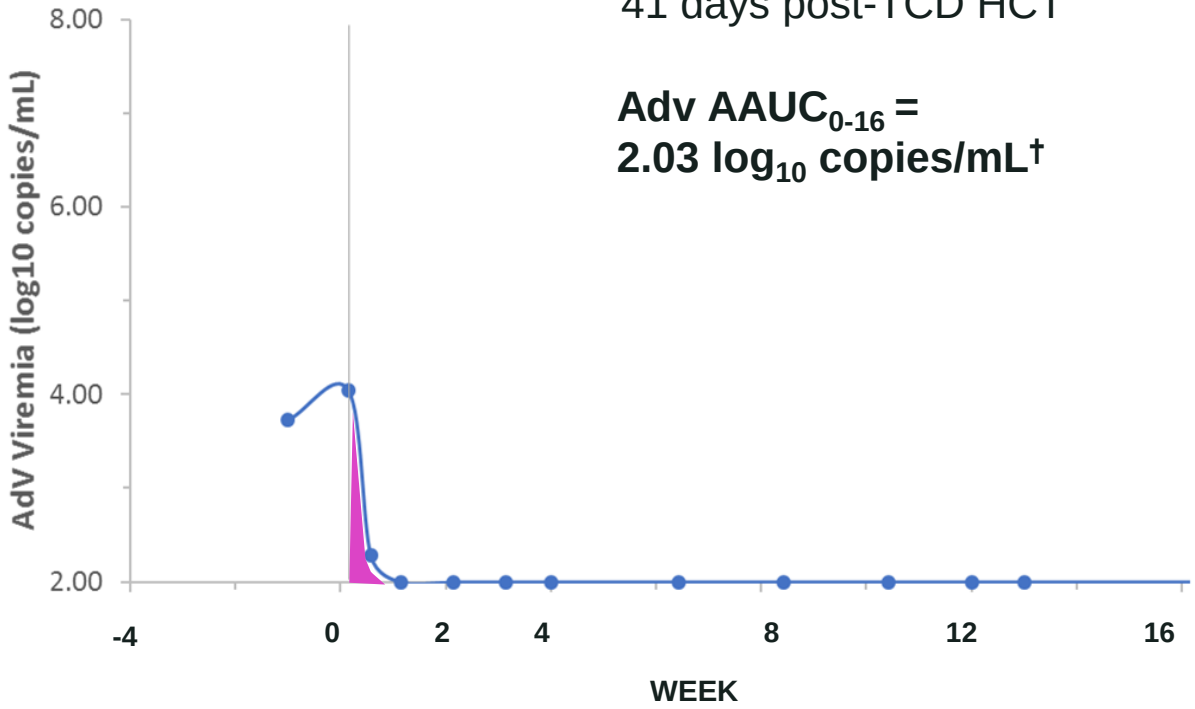
ADVANCE

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

CHIMERIX

AdVance: Data Increases Confidence for AdAPT

- These data increase confidence that AdAPT's primary virologic endpoint is clinically relevant

- More rapid control of AdV viremia with BCV should decrease adeno burden (AdV AAUC)

- Lower adeno burden (AdV AAUC) should decrease AdV-related mortality

Norovirus Represents a Large and Significant Unmet Need

- Worldwide: ~700 MM cases of norovirus each year (~20 MM in U.S.)
  - ~219,000 deaths per year[1]
- Economic toll of norovirus is >$60 Billion per year[2]
  - $4.2B in direct health system costs
  - >60% of outbreaks in US occur in long term care facilities
- Nothing approved for prevention or treatment
  - Norovirus genetic diversity and limited immunity are significant hurdles for antivirals and vaccines
  - Ideal therapy should have “pan-genotype” activity, i.e., it should work against all strains

1 PLoS Med 13(4):e1001999
2 PLoS ONE 11(4):e0151219

CHIMERIX

The Number of Chronic Norovirus Infections Are Expected to Increase As Transplant Rates Increase Over Time




TRANSPLANTS PER YEAR	U.S.	European Union (28)	ROW	TOTAL
HCT				
Allogeneic	8,700	16,400	10,154	35,254
Autologous	15,000	21,700	6,515	43,215
HCT TOTALS	23,700	38,100	16,669	78,469
SOT				
Kidney	19,860	20,000	40,700	805,60
Liver	7,800	7,400	10,500	25,700
Other SOT	5,940	4,500	1,400	11,840
SOT TOTALS	33,600	31,900	52,600	118,100
TOTAL TRANSPLANT	57,300	70,000	69,269	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., HSCT in Europe 2014, nature.com/bmt, 2016. ROW HCT: 2013 HCT figures from The WBMT Global Survey presented by Helen Baldomero at WBMT meeting in Riyadh 2017, slide 11 (South East Asia/Western Pacific and Eastern Mediterranean/Africa). TOTAL HCT: US + EU + ROW. EU & TOTAL SOT: Newsletter Transplant – International Figures On Donation And Transplantation 2014; EDQM, volume 20, 2015. ROW SOT: Total - EU - US

CHIMERIX

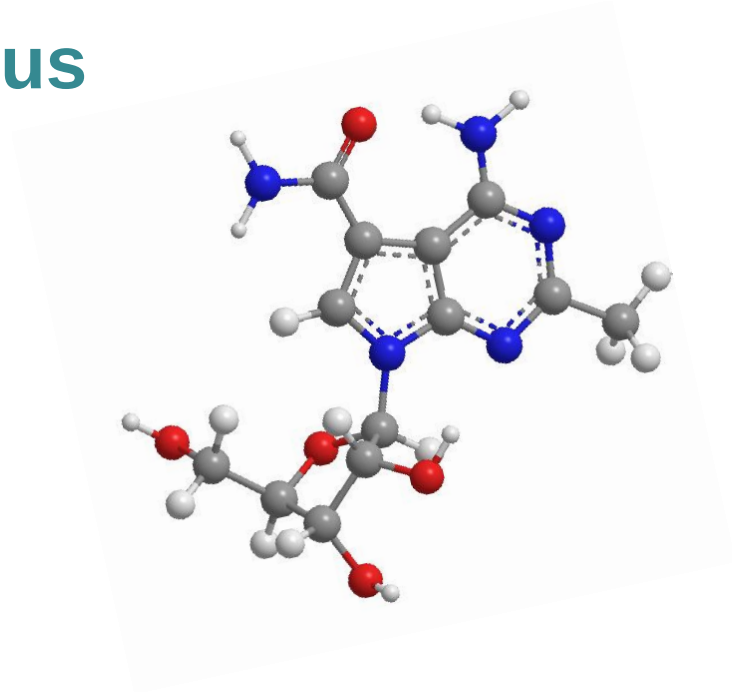
Two Distinct Segments for Norovirus Opportunity Identified

- **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

CHIMERIX

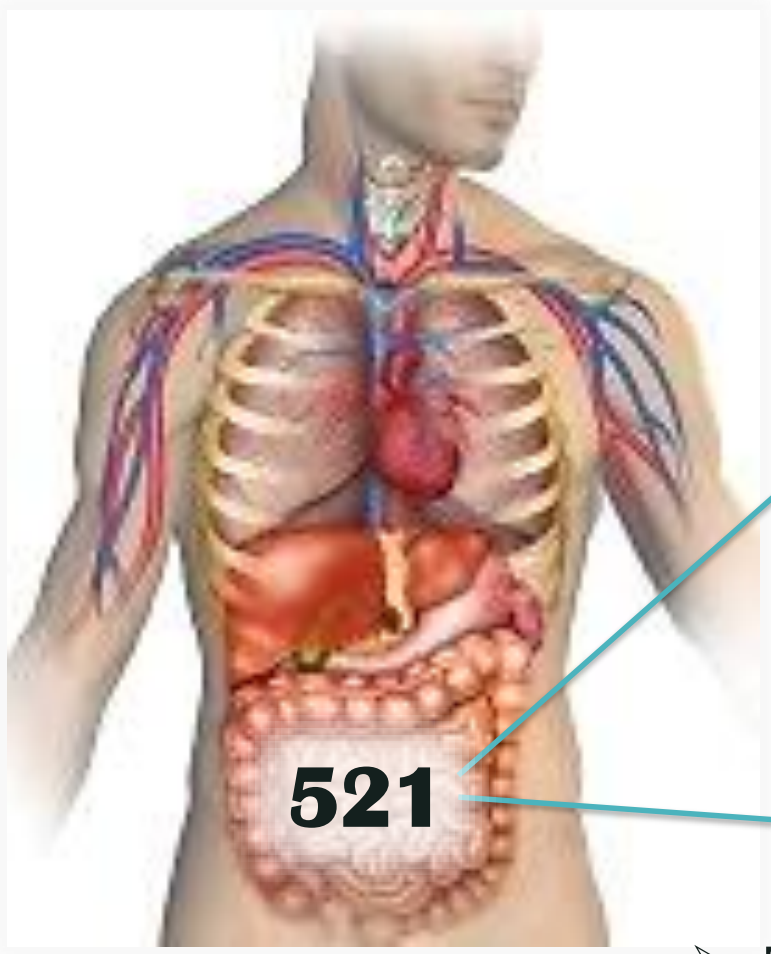
CMX521: a Small Molecule Antiviral for Norovirus

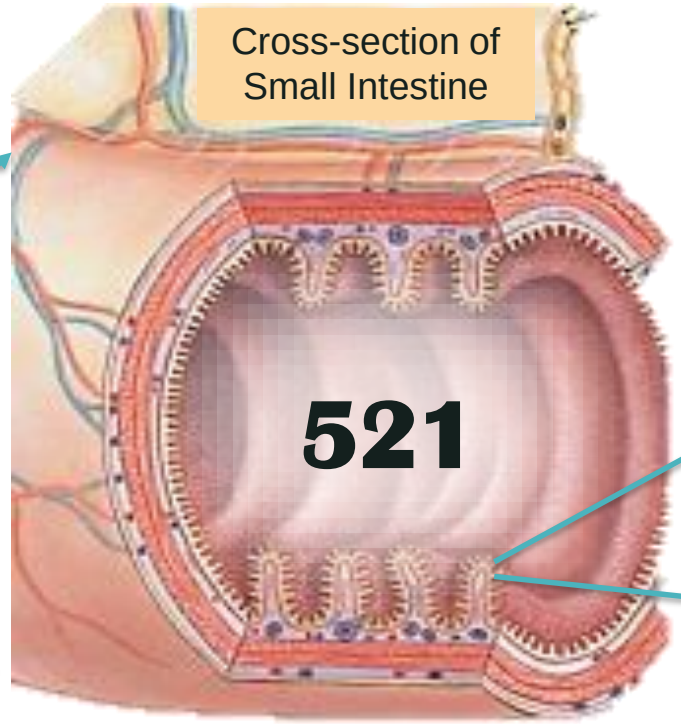


- Nucleoside with pan-genotype activity
  - Targets region of virus that is common to all strains
- Safety profile looks very promising
  - In vitro and in vivo
- High probability of clinical efficacy for a drug in Phase 1
  - Preferential delivery of drug to target cells
- Patent protection until 2036

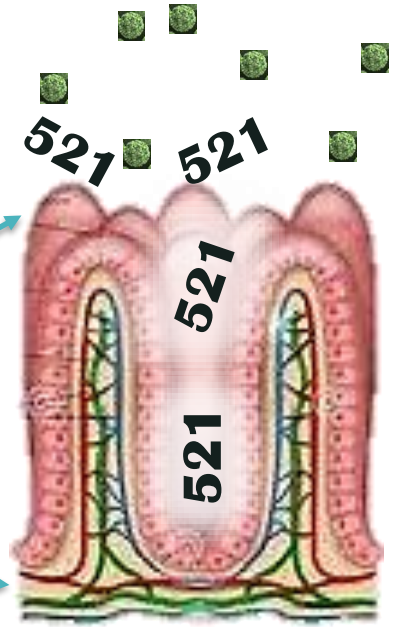
CHIMERIX

CMX521 Preferentially Delivered to Target Cells with Oral Dosing





Norovirus (■) infects the epithelial cells of the gut (▬)



- More drug in target sites increases efficacy
- Less drug in non-target sites increases safety

CHIMERIX

Reasons to Believe in Clinical Success of CMX521

- Pan-genotype activity
  - Effective in vitro against all noroviruses tested to-date
  - Should cover all current and emerging strains

- Preferential delivery to the cells that norovirus infects
  - Improves odds of clinical efficacy: more drug in right place
  - Improves odds of clinical safety: less drug in wrong place

Debut oral presentation at the International Conference on Antiviral Research

Porto, Portugal June 11-15

CHIMERIX

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 in patients 2018	2022
CMX521	Norovirus					SAD/MAD in 2018	2023

- Chimerix remains well-capitalized with $209M at the end of 1Q18
- Patent protection into 2034 for brincidofovir, and 2036 for CMX521

CHIMERIX