Chimerix, Inc. (CMRX) — Overweight

An Elegant Solution to a Viral Problem. Initiating at Overweight, $33 PT

CONCLUSION

We are initiating coverage of CMRX with an Overweight rating and $33 PT (118% upside from current levels). Brincidofovir is a lipid-conjugate of cidofovir which significantly improves the compound's safety profile while preserving its potent efficacy against double-stranded DNA (dsDNA) viruses. The drug is being evaluated in the Phase III SUPPRESS study for prevention of CMV (cytomegalovirus) reactivation in patients undergoing allogeneic stem cell transplantation (SCT), a procedure which leaves patients transiently immunocompromised and vulnerable to infection. Positive results from the Phase II study bode well for the drug. Brincidofovir has also demonstrated activity against adenovirus in a smaller Phase II study and is likely to have additional applications given its broad-spectrum activity. SUPPRESS data will be available in 2015, but there are likely to be meaningful catalysts in 2014 as CMRX advances new indications for brincidofovir (smallpox, adenovirus and potentially more) and as enrollment updates in SUPPRESS should impress.

- **Look for success in SUPPRESS.** The Phase II study of brincidofovir for prevention of CMV reactivation in SCT patients showed a >50% reduction in risk versus placebo. The Phase III study has been further optimized with earlier onset of therapy and a dose-management strategy to deal with side effects (specifically diarrhea).

- **U.S. allo stem cell transplant setting supports a $250M/yr+ product:** Specialists are eager to gain access to a well tolerated CMV prophylaxis regimen and anticipate broad adoption of brincidofovir pending approval. WIth 7K allogeneic transplants annually in the U.S. and a price which we conservatively project in the $40-50K range, we believe peak sales for this indication can surpass $200M. While brincidofovir use in adults may be limited to patients at risk of CMV infection (70%), use in the pediatric setting for whom adenovirus is also a problem, adoption may be broader.

- **Myriad of expansion opportunities:** CMRX has the potential to extend the utility of brincidofovir into other geographies and new indications including autologous transplants (13K/yr in the U.S.), solid organ transplants (16K/yr kidney transplants in the U.S.) and various other settings in which approved antiviral agents are inadequate. CMRX also has a contract with BARDA to explore the utility of brincidofovir for smallpox and could land a lucrative strategic national stockpile supply contract.

RISKS TO ACHIEVEMENT OF PRICE TARGET

Brincidofovir may fail to reach the primary endpoint in the SUPPRESS study or safety concerns could limit its approvability or commercial potential. CMRX may need additional cash to fund brincidofovir launch.

COMPANY DESCRIPTION

CMRX is a antiviral drug development company leveraging its lipid-antiviral-conjugate platform.

PRICE: US$15.10
TARGET: US$33.00

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Changes	Previous	Current
Rating		Overweight
Price Tgt		US$33.00
FY13E Rev (mil)	—	5.7
FY14E Rev (mil)	—	4.0
FY13E EPS	—	(1.88)
FY14E EPS	—	(1.98)

52-Week High / Low	US$27.00 / US$12.96
Shares Out (mil)	29.1
Market Cap. (mil)	US$439.4
Avg Daily Vol (000)	119
Book Value/Share	US$3.97
Net Cash Per Share	US$4.67
Debt to Total Capital	1%
Yield	0.00%
Fiscal Year End	Dec

Price Performance - 1 Year

Source: Bloomberg

YEAR	REVENUE (m)						EARNINGS PER SHARE ( )					
	Mar	Jun	Sep	Dec	FY	FY RM	Mar	Jun	Sep	Dec	FY	FY P/E
2012A	3.1	6.2	0.0	0.0	33.7	13.0x	—	—	—	—	(0.81)	NM
2013E	1.8A	0.8A	0.9A	1.0	5.7	77.1x	(22.58)A	(0.91)A	(0.26)A	(0.35)	(1.88)	NM
2014E	1.0	1.0	1.0	1.0	4.0	109.9x	(0.47)	(0.51)	(0.50)	(0.50)	(1.98)	NM

CMRX: Snapshot

- Brincidofovir is a simple, but elegant antiviral agent
  - Cidofovir is a potent antiviral, but nephrotoxic.
  - CMRX added a lipid chain to cidofovir to make it safe and highly competitive with other antiviral agents. (Slides 9-11).

- Viral infections (especially CMV) are a problem in stem cell transplants (SCT); Brincidofovir in Phase III for this indication
  - Current options for CMV disease prevention in SCT patients are suboptimal; Brincidofovir offers CMV prophylaxis and also utility against other viruses (Slides 12-18).
  - Phase III data in mid-2015; Positive Phase II results bodes very well for success (Slides 19-27).
  - $200-250M U.S. market opportunity for this indication (Slides 28-29).

- Brincidofovir activity against other viruses also appealing
  - Activity shown against adenovirus in Phase II study (Slides 29-30).
  - Activity against BK virus could expand use into other transplants (Slides 31-34).
  - And even more applications such as smallpox may come into view in 2014 (Slide 35).

CMRX: Simple But Elegant, Brincidofovir Poised For Success

Company Description

CMRX's brincidofovir is a lipid-conjugate of cidofovir which significantly improves the drug's safety profile while preserving its potent efficacy, thereby optimizing its antiviral utility for dsDNA viruses. Current treatment options for dsDNA viruses such as cytomegalovirus (CMV), adenovirus, BK virus and JC virus are limited, and these can all be of particular concern for patients receiving potent immunosuppressive regimens for stem cell or solid organ transplantation. The drug has already demonstrated compelling Phase II results for both CMV prevention and adenovirus reactivation treatment, and the company is receiving a continuous flow of compassionate use requests for the drug.

- **Phase III SUPPRESS study for prevention of CMV reactivation is underway; data in mid-2015**
  - Patients undergoing allogeneic transplantation who are at risk for CMV reactivation.
  - Clear signs of efficacy in Phase II with well tolerated profile; considerable physician enthusiasm for the product.
  - No SPA, but the FDA has agreed on the primary endpoint being used.
  - Allogeneic stem cell transplant opportunity in the U.S. could surpass $250M/yr.

- **Brincidofovir likely to have utility in additional settings**
  - Phase II results suggest utility in immunocompromised patients with adenovirus reactivation.
  - May have utility as an antiviral agent in patients undergoing solid organ transplantation.
  - Potential role in the Strategic National Stockpile for smallpox prevention.

CMRX: Our Investment Recommendation

Investment Thesis

We believe CMRX is poised for success as a company and an investment opportunity as brincidofovir advances through clinical development and into commercialization. The drug has multiple potential applications given its unique activity against multiple dsDNA viruses and the high unmet medical needs these represent. Key drivers for success include:

1. **Brincidofovir for CMV prevention in adult patients undergoing allogeneic stem cell transplantation and at high risk for CMV infection. The Phase III SUPPRESS study is expected to report results in 2015. Based on the drug's profile in Phase II combined with a compelling Phase III design and endpoint selection, we believe probability of success is high. This indication alone in the U.S. represents an achievable $250M+/yr in revenue and should support upside to current levels. Minimal incremental data is needed to expand the brincidofovir label to the pediatric stem cell transplant setting.**

2. **CMRX will evaluate the utility of brincidofivir in the sizeable solid organ transplantation setting.**

3. **CMRX also has a biodefense effort with BARDA to develop brincidofovir for the National Stockpile as a smallpox bioterror prophlactic agent. Success with this program could lead to a contract for hundreds of millions of dollars worth of product.**

4. **Beyond brincidofovir, CMRX has a lipid-conjugate version of tenofovir for HIV partnered with MRK.**

We estimate the stem cell transplant indication represents a $250M+ opportunity in the U.S. alone. On a global basis across multiple indications, brincidofovir could achieve peak global sales approaching $1B.

CMRX Valuation: $33/share

- **DCF analysis of estimated free cash flow (modeled through 2022)**
  - Slight premium 11% discount rate reflects clinical/commercial risk which we assume to be relatively low for CMV prevention and adeno prevention.
  - Terminal multiple of 13x reflects our conservative assumption for eventual generic threats (composition of matter patent through 2031). This multiples implies a terminal growth of 3% versus our modeled EPS growth of 19% in 2022. Upside to our growth projections would be recognized from the potential to expand brincidofovir into additional indications. Our terminal multiple may also prove conservative.
- **We assume:**
  - Contribution from brincidofovir for U.S. adult allogeneic high risk stem cell transplant patients, peak of ~$160M in 2022. Max penetration of 70% into target market with price point starting ~$40K.
  - Contribution from brincidofovir for U.S. pediatric allogeneic high risk stem cell transplant patients, peak of ~$80M in 2022. Max penetration of 65% into target market with price point starting ~$40K.
  - Contribution from 'other' brincidofovir applications peaking at $135M in the U.S. in 2022.
  - Peak ex-U.S. brincidofovir revenue of $260M across all indications.
  - We do not assume any contribution from brincidofovir for the solid organ transplant applications, for smallpox strategic national stockpile, or for the HIV program partnered with MRK.

What Makes CMRX A Unique Opportunity

- **Proof of concept established in two Phase II trials for 2 separate dsDNA viruses in the immunosuppressed transplant setting mitigates downside risk**
  - Phase II study for CMV prevention showed clear antiviral activity and Phase III program is optimally designed to prove a benefit in CMV reactivation in allogeneic stem cell transplant patients.
  - Phase II study for adenovirus treatment also showed clear antiviral activity.

- **Multiple upside opportunities for brincidofovir**
  - Brincidofovir could have much broader utility as CMRX explores its role in the solid organ transplant setting and beyond. We expect increasing clarity on the potential applications of brincidofovir in 2014.
  - Activity against smallpox could support procurement contract from BARDA for hundreds of millions of dollars worth of drug for national stockpile.

- **Potential fast path to market for adenovirus indication**
  - Given the ultra-high unmet need for immunocompromised patients with adenovirus reactivation, the Phase II data might suffice for accelerated approval although we do not currently assume this.

- **Modest valuation leaves plenty of room for upside**
  - As part of the 2013 IPO class, CMRX's valuation (~$400M Mkt cap, ~$300M EV) remains modest/attractive even after the recent share outperformance.

CMRX Risks

- **Development risks:**
  - Brincidofovir may fail to replicate the positive Phase II results in Phase III studies.
  - New safety signals could emerge that offset the drug's efficacy.
  - CMRX may fail to unlock broader indications beyond CMV prevention in allogeneic transplant for brincidofovir.

- **Regulatory risks:**
  - Avoidance of pre-emptive therapy may not be an acceptable regulatory endpoint for some authorities if the rest of the results do not support brincidofovir's utility.

- **Commercial risks:**
  - New therapies for dsDNA viruses could be emerge that are more attractive than brincidofovir.
  - Pricing of brincidofovir may not be accepted particularly as valgancyclovir goes generic
  - Prophylactic therapy may not be viewed as desirable relative to pre-emptive therapy.

CMRX Pipeline

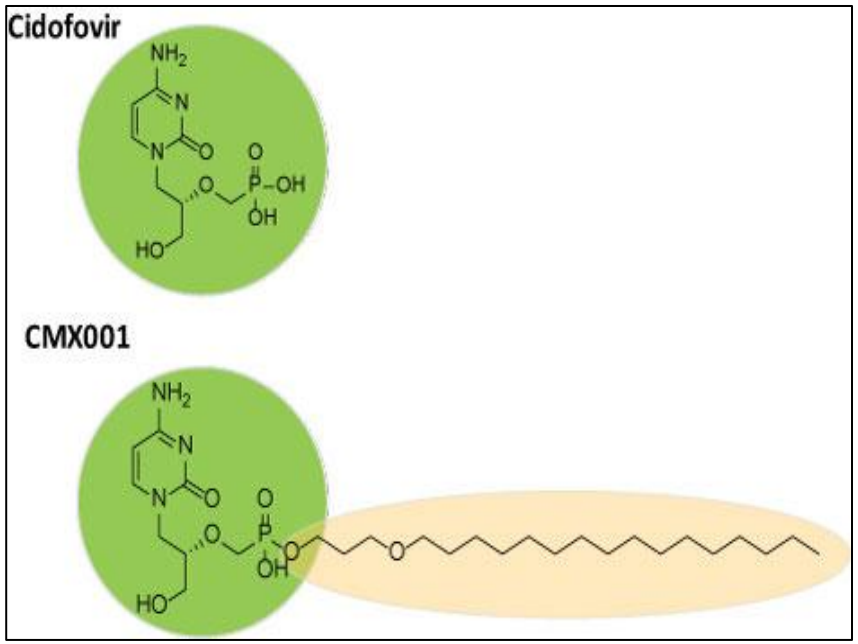
Brincidofovir (CMX001)	Preclinical	Phase 1	Phase 2	Phase 3	Milestones	Worldwide Rights
CMV prevention in HCT				PHASE 3 (SUPPRESS)	Phase 3 data 2015	Chimerix
AdV preemptive therapy in HCT				PHASE 2 COMPLETED (Study 202)	Phase 2 data ICAAC 9/10/13	Chimerix
Smallpox under Animal Efficacy Rule				DEVELOPMENT ONGOING (BARDA)		Chimerix
CMX157						
HIV						Out-licensed to Merck
Chimerix Chemical Library						
Influenza, antifungals, CMV/BKV						Chimerix

We expect additional applications for brincidofovir to be identified in 2014.

Source: Company presentation

Introduction To Brincidofovir (CMX001)– The Lead Drug In Development

Brincidofovir Is An Elegant Yet Simple Improvement Over Cidofovir



Cidofovir is transported into kidney cells by uptake via the HOAT-1 transporter; this results in nephrotoxicity. With the addition of a lipid conjugate, **brincidofovir** (CMX001) does not enter the kidney cells so is not nephrotoxic, but still has potent antiviral activity. Brincidofovir has patent protection through 2031 and CMRX owes a low-single digit royalty to University of California.

Source: CMRX S-1

Brincidofovir Is Differentiated In the Field Of Antiviral Agents

	CMX001	Cidofovir	Ganciclovir	Valganciclovir	Foscarnet	Acyclovir	Maribavir	Letermovir	TransVax
Safety/ Tolerability	Diarrhea, Rx with dose interruption	Nephrotoxicity, myelotoxicity	Myelotoxicity	Myelotoxicity	Nephrotoxicity	N/A	Dysgeusia; TBD	N/A	Local reaction
Route of administration	Oral	IV, hydration, probenecid	IV	Oral	IV, hydration	Oral, IV	Oral	Oral	Injection
Dosing schedule, duration	Twice weekly	Weekly	Twice weekly	Daily	Twice daily	Twice daily	Twice daily	Daily	Q3M
CMV potency (EC50)	0.001	0.4	3.8	3.8	50-800	>200	0.31	0.05	N/A
Resistance in CMV	None, hard to generate in vitro	Rare	Up to 10%	Up to 10%	Rare	GCV cross resistance	None	None	N/A
dsDNA Coverage	All 5 families	All 5 families	CMV, HSV, VZV, HHV6	CMV, HSV, VZV, HHV6	CMV, HSV	CMV, HSV, VZV, EBV	CMV, EBV	CMV	CMV
Status	Entering Phase III	Approved	Approved	Approved	Approved	Approved	Phase II	Phase II	Phase III

Source: CMRX S-1

Brincidofovir is unique in its profile of broad dsDNA virus activity, oral dosing, potency, and strong safety profile. As with valganciclovir, brincidofovir might benefit from considerable off-label use for dsDNA virus infections in non-transplant immunocompromised patients.

Brincidofovir Is More Potent Than Other Drugs For dsDNA Viruses

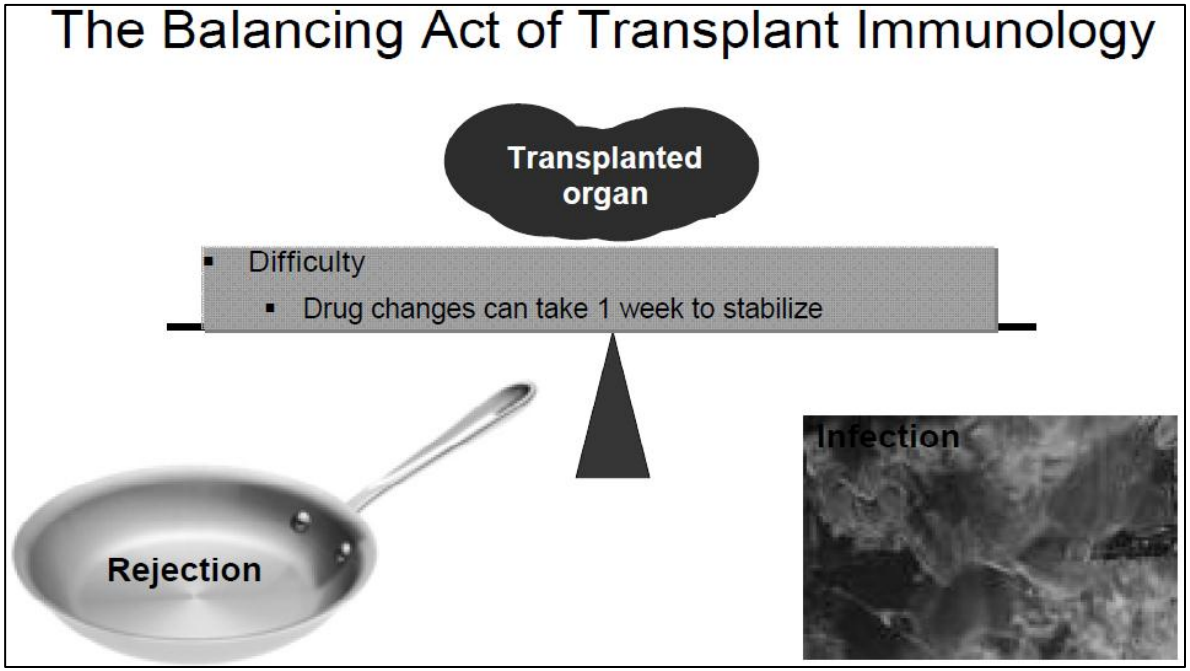
Viral Family	Virus	Brincidofovir	Cidofovir	Ganciclovir*	Foscarnet	Acyclovir	Maribavir	Letermovir
Herpes	Cytomegalovirus (CMV)	0.001	0.4	3.8	50-800	>200	0.31	0.0051
	Epstein-Barr Virus (EBV)	0.03	65.6	0.9	<500	6.2	0.63	>10
	Human Herpesvirus 6A (HHV-6A)	0.003	2.7	5.8	16	10	Inactive	>10
	Human Herpesvirus 8 (HHV-8)	0.02	2.6	8.9	177	>100	Inactive	No data
	Herpes Simplex Virus 1 (HSV-1)	0.01	3.0	0.7	92-95	3.8	Inactive	>10
	Herpes Simplex Virus 2 (HSV-2)	0.02	6.5	2.5	91-96	4.4	Inactive	>10
	Varicella Zoster Virus (VZV)	0.0004	0.5	1.3	39.8	3.6	Inactive	>10
Adenovirus	Adenovirus 7 (AdV7)	0.02	1.3	4.5-33	Inactive (AdV2)	>100	No data	>10 (AdV2)
Polyoma	BK Virus (BKV)	0.13	115	>200	Inactive	>200	No data	No data
	JC Virus (JCV)	0.045	>0.1	No data	Inactive	No data	No data	No data
Papilloma	Human Papillomavirus 11 (HPV-11)	17	716	Inactive	No data	Inactive	No data	No data
Pox	Variola	0.1	27	No data	No data	No data	No data	No data
	Vaccinia	0.8	46	>392	Inactive	>144	No data	No data

Source: Company Presentation

Pan-dsDNA virus activity is a differentiating feature in the stem cell transplant setting where patients are at risk for multiple infections, and also suggests brincidofovir should have broader applications beyond stem cell transplants.

Background On Stem Cell Transplants (SCTs)

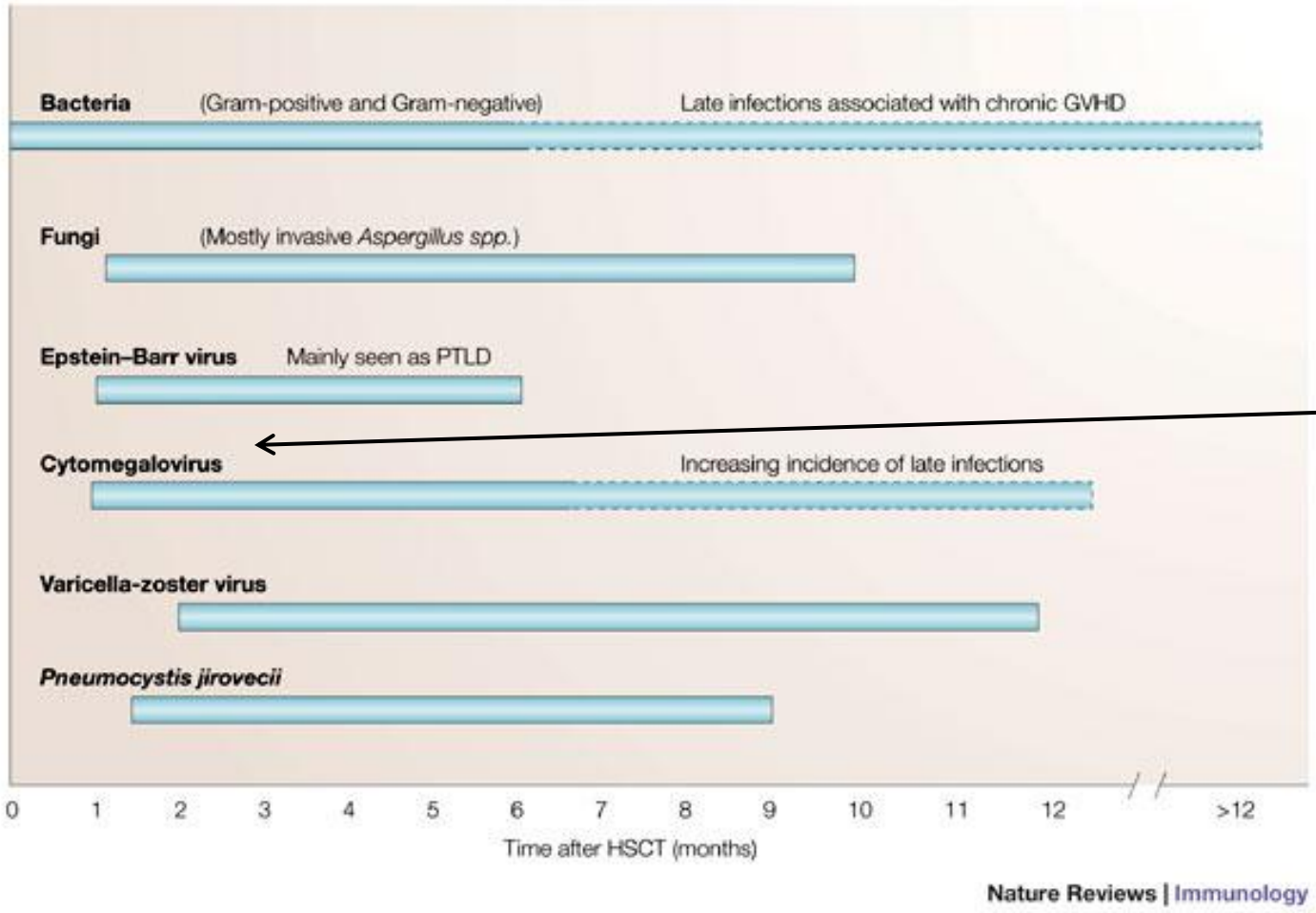
Stem Cell Transplant Patients Require Balanced Immunosuppression; Not Too Much and Not Too Little



Allogeneic stem cell transplants evolve essentially ablating a patient's bone marrow and replacing it with that of a donor. This is done for indications including malignancies and genetic diseases. With the new bone marrow, immunosuppressive therapies are needed to prevent graft-versus-host disease, where the new white cells recognize the body as foreign and attack it. The immunosuppression puts patients at risk for CMV infections.

Source: http://www.mayomedicallaboratories.com/mediax/articles/hottopic-pdfs/2010/2010-03b-viral-load-handout.pdf

Immunosuppressive Regimens Leave Patients Vulnerable To Multiple Infections, Including CMV

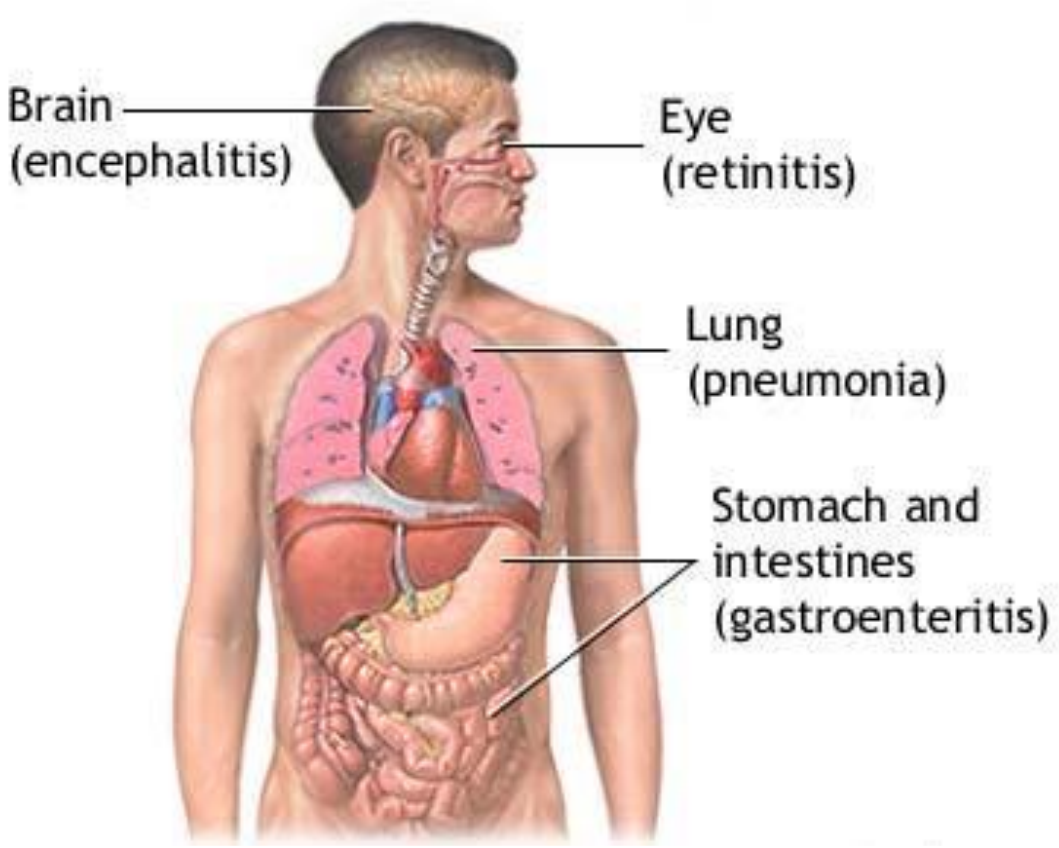


There is a wide window following stem cell transplant where patients are at risk of CMV and other infections; frequent monitoring over this period is required due to the lack of suitable prophylactic options. Brincidofovir's safety/efficacy should shift the paradigm to prophylaxis against CMV.

Source: Moss, Nature Reviews Immunology 2005

Background On Cytomegalovirus (CMV)

CMV Can Cause Disease In Various Organs Of SCT Patients



Source: beltina.org

Under immune suppressed conditions, CMV can reactivate and be detectable in the blood ("CMV infection"). If left unchecked, this infection can cause damage to specific organs ("CMV disease").

CMV infection and disease can have negative consequences on graft function, can increase graft-versus host disease, and can increase risk for other infections.

Risk Of CMV Infection Determined By Serostatus

Type	CMV Serostatus[1]	Risk of CMV Infection[2]	Non-Relapse Mortality[2]
Allogeneic	R+	80%	21%
	D-/R-	<5%	17%
	D+/R-	30%	18%
Autologous	R+	40%	27%

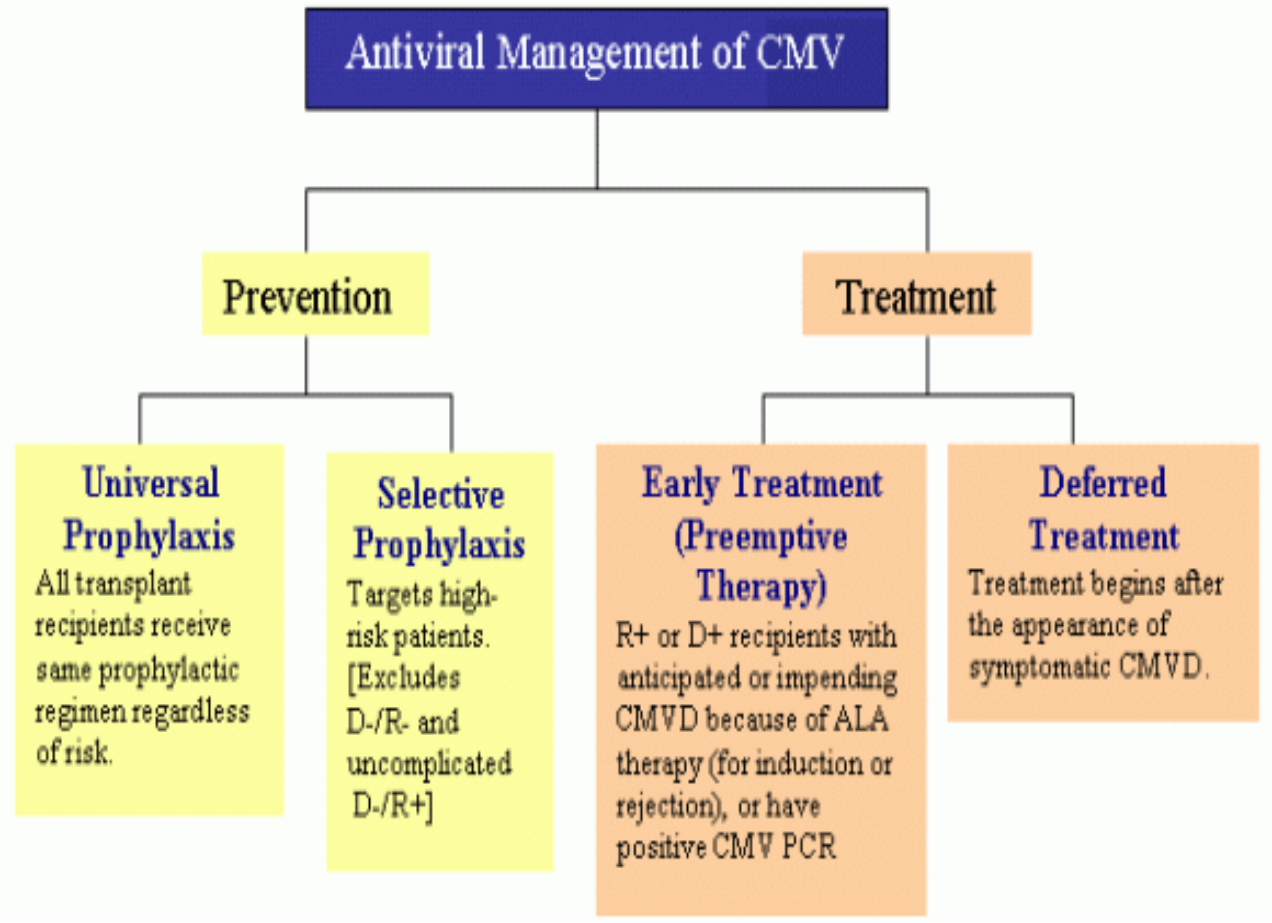
Source: Company presentation

Presence of anti-CMV antibodies ("serostatus") identifies patients who might harbor latent virus and predicts risk for CMV infection and disease.

Allogeneic stem cell recipients who are CMV seropositive (R+) are at high risk for CMV infection/disease. If the stem cell donor is positive but recipient is negative (R-/D+), the risk is considered moderate.

Autologous stem cell transplant patients (where patients' own cells are used to repopulate the marrow after ablation) are also at moderate risk of CMV infection and represents more than half the potential opportunity.

Approaches To CMV: Prophylactic Or Pre-emptive Therapy



Source: thedrugmonitor.com

Weekly blood testing for CMV infection through 100d is the standard paradigm, and if CMV is detected, intravenous gancyclovir (or oral valgancyclovir) is used to prevent the infection from turning into full-blow disease. This is called "preemptive therapy" and is the strategy used in most centers. Others use prophylaxis with valgancyclovir despite lack of approval and limitations of efficacy/myelosuppression and some use a hybrid approach with both prophylaxis and pre-emptive based on patient characteristics.

Brincidofovir Utility Beyond CMV An Advantage

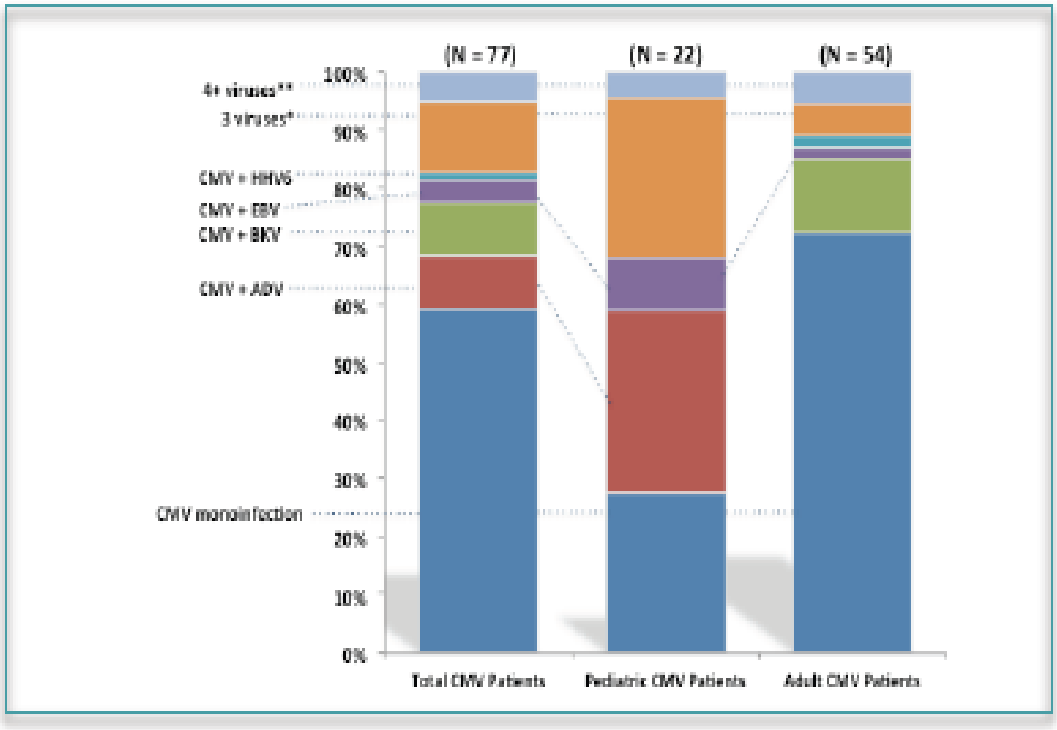
dsDNA Virus Family	Genera	Potential diseases caused by virus
Herpesviridae	CMV (Cytomegalovirus)	Gastroenteritis, pneumonitis, retinitis, encephalitis, marrow suppression
	EBV (Epstein Barr virus)	Lymphoproliferative disease
	VZV (varicella zoster virus)	Shingles, encephalitis
	HSV (herpes simplex virus)	Pneumonitis, encephalitis, rash/ulcers
Adenoviridae	Adenovirus	Pneumonitis, hepatitis, encephalitis, nephropathy. 80% rate of mortality
Polyomaviridae	BK virus	Nephropathy, hemorrhagic cystitis
	JC virus	PML (progressive multifocal leukoencephalopathy)

Source: Piper Jaffray Research

Not as common as CMV, but these other viruses can still be problematic in the transplant setting.

Broad dsDNA Virus Coverage Relevant Because Co-Infections Are Common In Transplant Patients

42% of CMV-infected Patients Co-infected with ≥ 1 dsDNA Virus



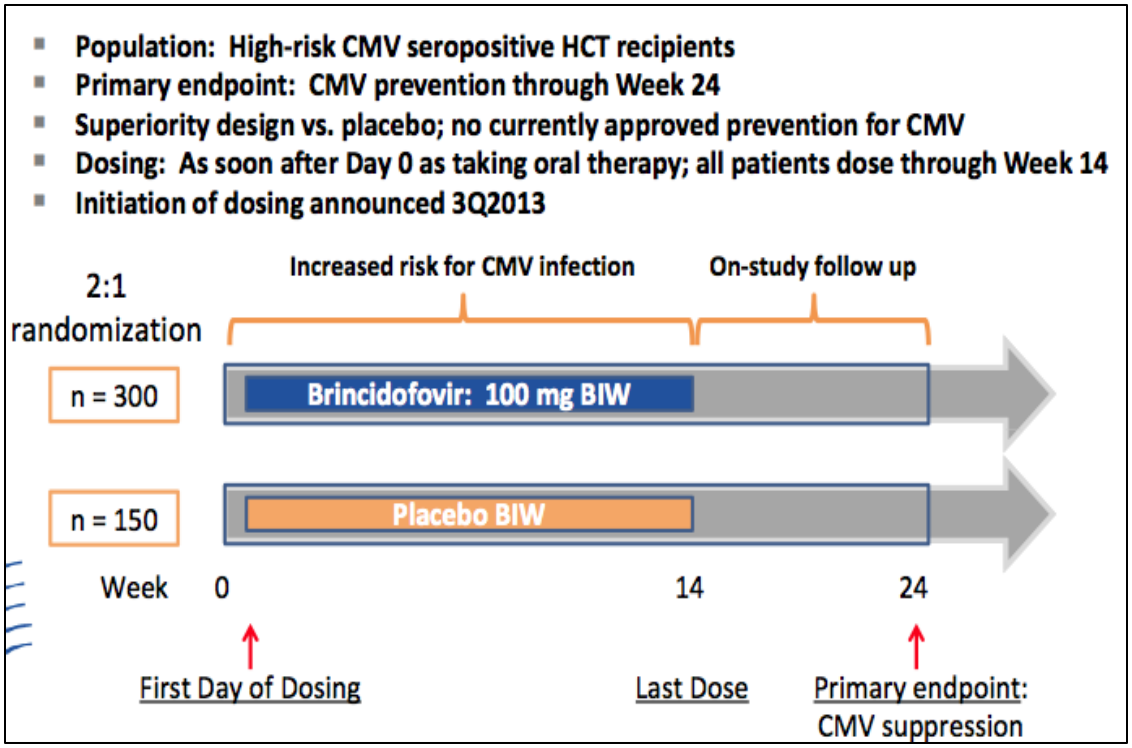
* CMV+AdV+EBV, CMV+AdV+BKV, CMV+BKV+EBV, CMV+BKV+HHV6
** CMV+ADV+EBV+HHV6, CMV+ADV+BKV+EBV, CMV+ADV+BKV+HHV6+JCV

Over 70% of pediatric stem cell transplant patients with CMV infection and nearly 30% of adult stem cell transplant patients with CMV infection have another dsDNA virus as well, supporting the role for a pan-dsDNA antiviral agent such as brincidofovir.

Source: Company presentation

Information On Brincidofovir Clinical Trials

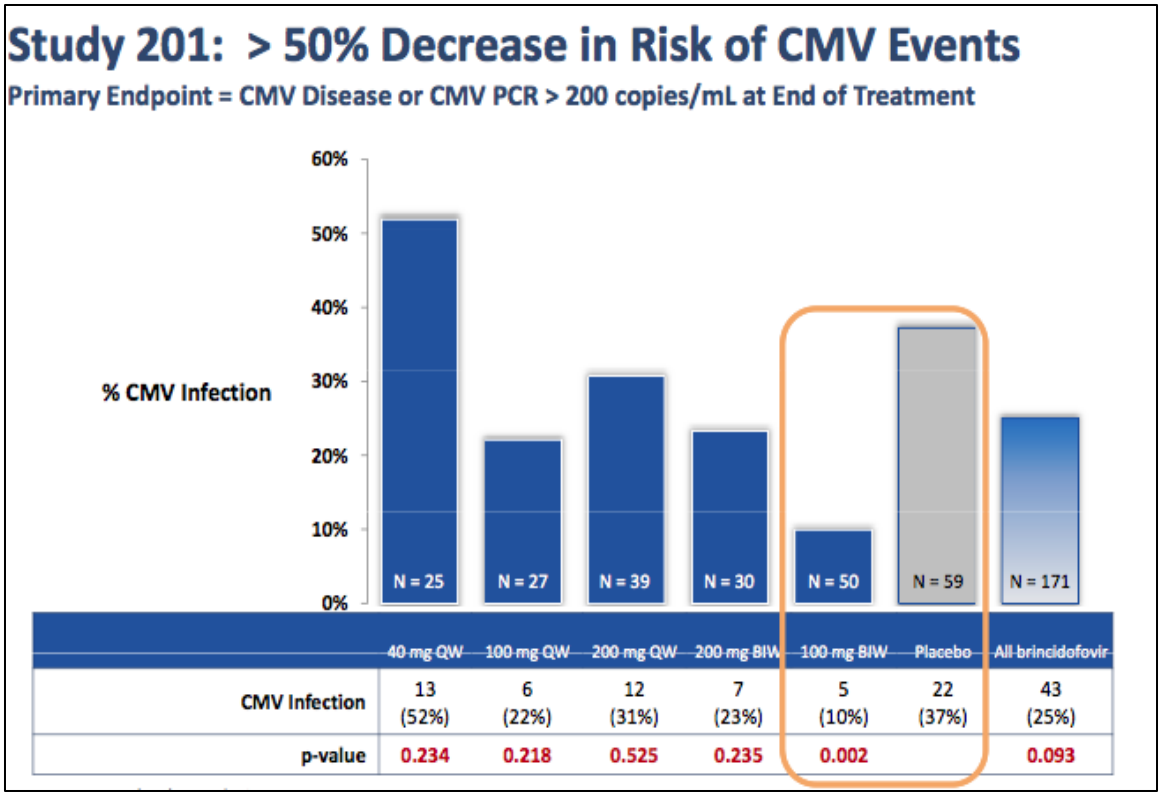
Phase III SUPPRESS Study Underway



Estimated CMV suppression therapy needed for 30% of placebo patients, 15% of brincidofovir patients. Key secondary endpoints will include evaluation of other dsDNA virus complications, CMV-related opportunistic infections and neutropenia from gancyclovir.

Source: Corporate presentation

Phase II (Study 201) Identified Optimal Dosing For CMV Prevention

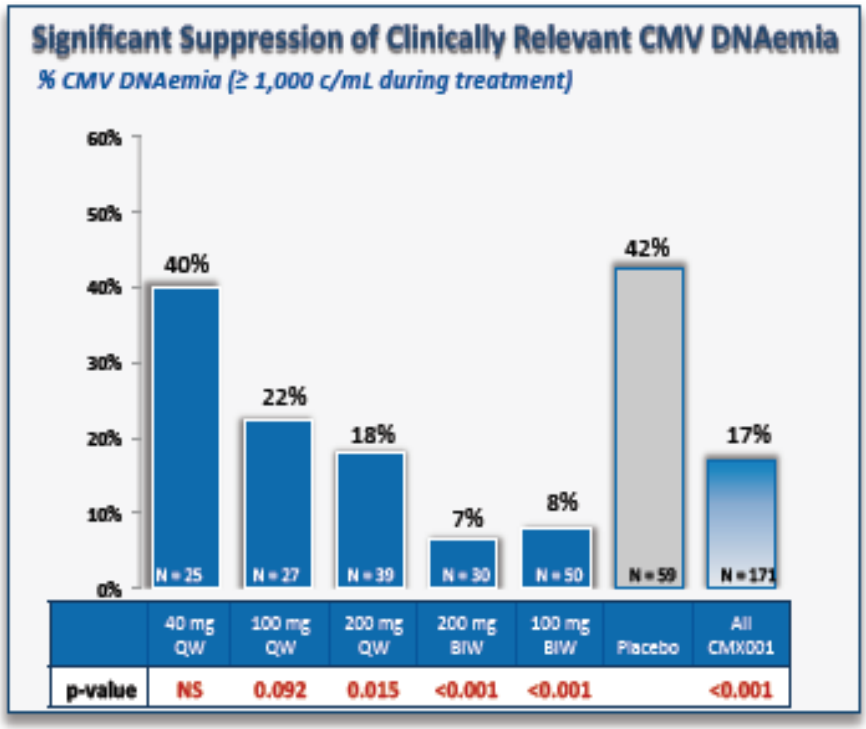


Low rate of CMV reactivation in therapeutic dose arms in the Phase II placebo-controlled prophylaxis study with brincidofovir. Less effective doses were either too infrequent or too high a dose (GI tox led to discontinuations in the 200mg biw arm).

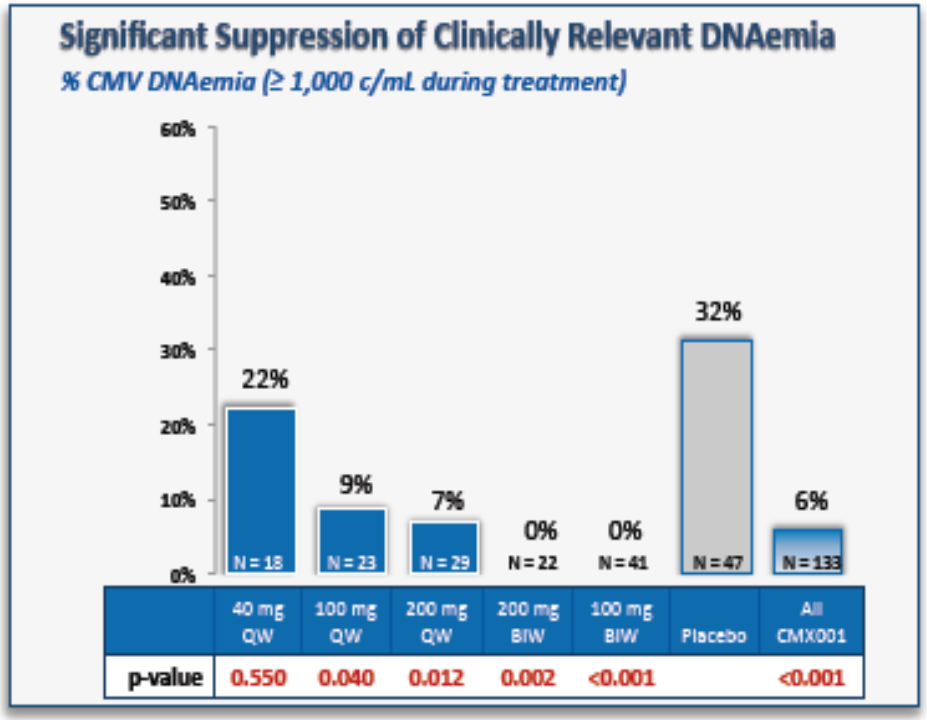
Source: Corporate presentation

Best Results In Patients Without Detectible CMV at Baseline

CMX001 Prevents or Suppresses CMV Viremia (all patients, CMV positive or negative at baseline)



CMX001 Prevents CMV Viremia (patients who were CMV negative at baseline)



Source: CMRX S-1

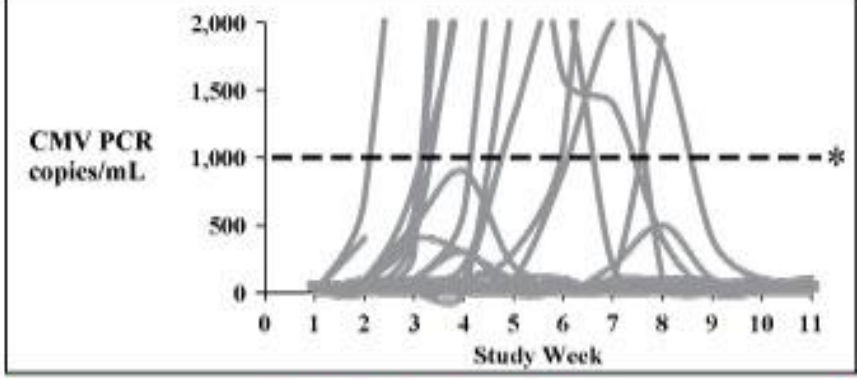
CMRX is taking advantage of this observation in Phase III SUPPRESS by initiating therapy sooner, before CMV has a chance to reactivate in the blood.

Spaghetti Curves More Effectively Illustrate Brincidofovir's Activity

Placebo

- N = 47
- 15/47 CMV PCR ≥ 1,000 c/mL

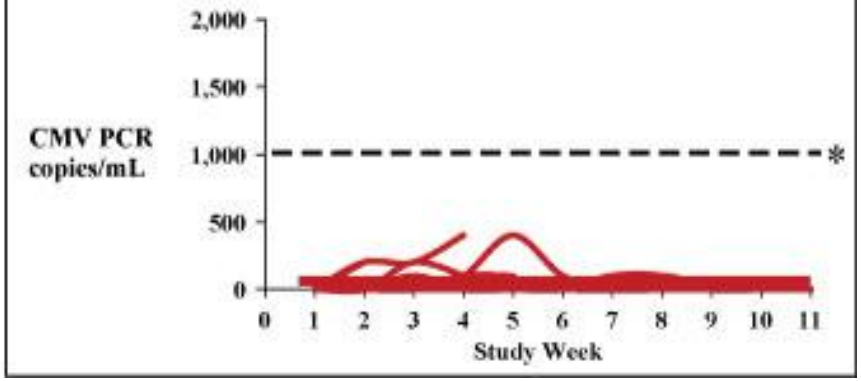
Placebo



CMX001 100 mg BIW

- N = 41
- 0/41 CMV PCR ≥ 1,000 c/mL

CMX001 100 mg BIW



100mg BIW is the dose arm which is being advanced in Phase III. Protocol changes and new formulation to improve GI tolerability may drive even better differentiation versus placebo.

Source: CMRX S-1

Phase II Data Using SUPPRESS Endpoints And Inclusion Criteria

Cohort	Failures[1] ("Worst Case")	Included in Analysis (n)
CMX 40 mg QW	8 (40%)	20
CMX 100 mg QW	9 (38%)	24
CMX 200 mg QW	11 (34%)	32
CMX 200 mg BIW	9 (33%)	27
CMX 100 mg BIW	10 (22%)	45
Placebo	24 (46%)	52

Source: CMRX S-1

Worse case means missing data counts as failure. This includes both CMV DNA positive and negative at baseline. We expect full SUPPRESS data to look better than this.

SUPPRESS Could Highlight Other Benefits of Brincidofovir

Study 201: Toxicities in Patients Receiving Preemptive Therapy	
Bone marrow toxicity	– 70% had moderate-to-severe decreases of white blood cells – 41% experienced low ANC with risk of fungal and bacterial infections – 15% required G-CSF; 7% RBC transfusions; 3% platelet transfusions
Kidney toxicity	– 25% experienced decrease in kidney function
Severe Adverse Events (SAEs)	– 23% required hospitalization for SAEs – 14% switch to second line therapy due to toxicity

Source: Corporate presentation

If brincidofovir is able to reduce pre-emptive therapy rates and as a result demonstrate a benefit on some of these secondary endpoints, the label (and therefore price point and market penetration) of brincidofovir could be improved, and prospects for expansion into other settings such as solid organ transplant may also be more favorable.

Brincidofovir Safety Profile Appears Acceptable

- **ALT >3x upper limit of normal in 30% of patients on 100mg BIW; 16% on placebo**
  - Normalized after completion therapy.
  - No increase in AST or bilirubin.
  - May reflect impaired clearance of ALT as opposed to liver toxicity.
  - Specialists see this as an acceptable risk given the drug's benefit.
- **Diarrhea is dose-limiting toxicity**
  - Managed by dose adjustments, patients can continue on therapy.

Maribavir Precedent Merits Consideration

Trial	Arm	N	CMV infection (antigen)	CMV infection (PCR)	Pre-emptive therapy required	CMV disease
Phase II Winston, Blood 2008	Placebo	28	39%	46%	57%	11%
	100mg bid	28	15%*	7%*	15%*	0%
	400mg od	28	19%	11%*	30%	0%
	400mg bid	27	15%	19%*	15%*	0%
Phase III Marty, Lancet ID 2011	Placebo	227	35%	30%	37%	2.6%
	100mg bid	454	26%	28%	31%	2.4%

** $p<0.05$*

Source: Winston, Blood 2008; Marty, Lancet ID 2011

VPHM's maribavir is a UL97 protein kinase inhibitor which failed in Phase III after positive results in Phase II. We believe there are unique considerations which led to failure of maribavir which distinguish it from brincidofovir.

Failure of Maribavir Can Be Explained By...

- Inadequate dose selection in effort to avoid side effects
  - No dose response evident in Phase II although the higher dose clearly had higher exposure to drug.
- Dosing started too late (took roughly 24 days after engraftment to initiation of therapy).
- Phase II results were erratic and the placebo arm performed worse than would have been expected.
- Never showed the spaghetti curves to substantiate antiviral effect.

Some degree of caution in the SUPPRESS results is merited due to the failure of maribavir, but we believe the totality of the data, including preclinical results, role of cidofovir, antiviral efficacy in the Phase II CMV prevention study and the antiviral activity against adenovirus in a separate Phase II study all bode well for brincidofovir success.

Market Opportunity For Brincidofovir

Highly Specialized, Centralized U.S. SCT Market Needs Only 50 Reps

(HCT) Market	Allogeneic	Autologous
Annual # of US Transplants[1]	7,000	13,000
% of Patients at Risk for CMV[2]	65%	65%
Potential Brincidofovir (CMX001) Initial Market Size for CMV in (HCT)	4,550	8,450

Source: Corporate presentation

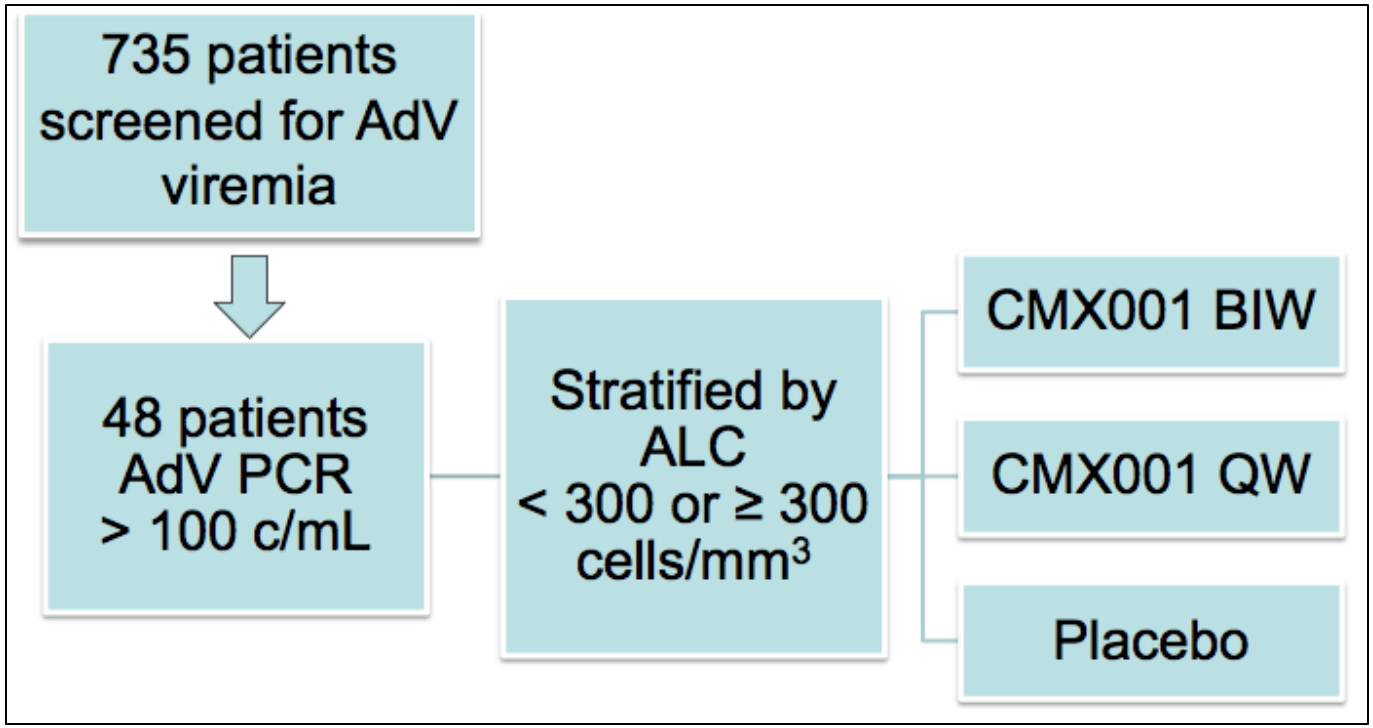
We estimate the U.S. allogeneic market for brincidofovir to be ~$200-250M, but expansion into autologous or solid organ transplant or other indications, as well as global expansion, could drive peak revenue meaningfully higher.

Additional SCT Market Commentary

- **Roche's Valcyte is approved for:**
  - Treatment of CMV retinitis in AIDS.
  - Prevention of CMV disease in solid-organ transplant at high risk (excluding liver).

- **U.S. Valcyte sales in 2012 reached around $325M**
  - Dosed up to day 200 in kidney transplant, day 100 in other. Typically 900mg/d dosing at around $3.5K/M ($23K/course of therapy for kidney).
  - About 20K non-liver solid organ transplants/yr in the U.S. which is 2x the number of allogeneic SCT/yr.
  - Reportedly much of Valcyte revenue is off-label for infections in non-stem cell transplant patients.

Adenovirus Activity in HALT Study Opens Door To Pediatric, Other Settings



Source: Corporate presentation

Rates of adenovirus reactivation in immunosuppressed patients is lower, but morbidity/mortality is very high for these patients and could be the key to unlock the pediatric stem cell transplant population (for whom CMV infection rates are lower).

HALT Showed Encouraging Trends Even Though A Small Study

	CMX001 BIW n=14	CMX001 QW n=16	Placebo n=18
Subjects with treatment failure	3 (21%)	6 (38%)	6 (33%)
Increase in viremia only	1	1	1
Evidence of end-organ disease +/- increasing viremia	2	5	5
p-value (versus placebo)[a]	0.450	0.779	N/A

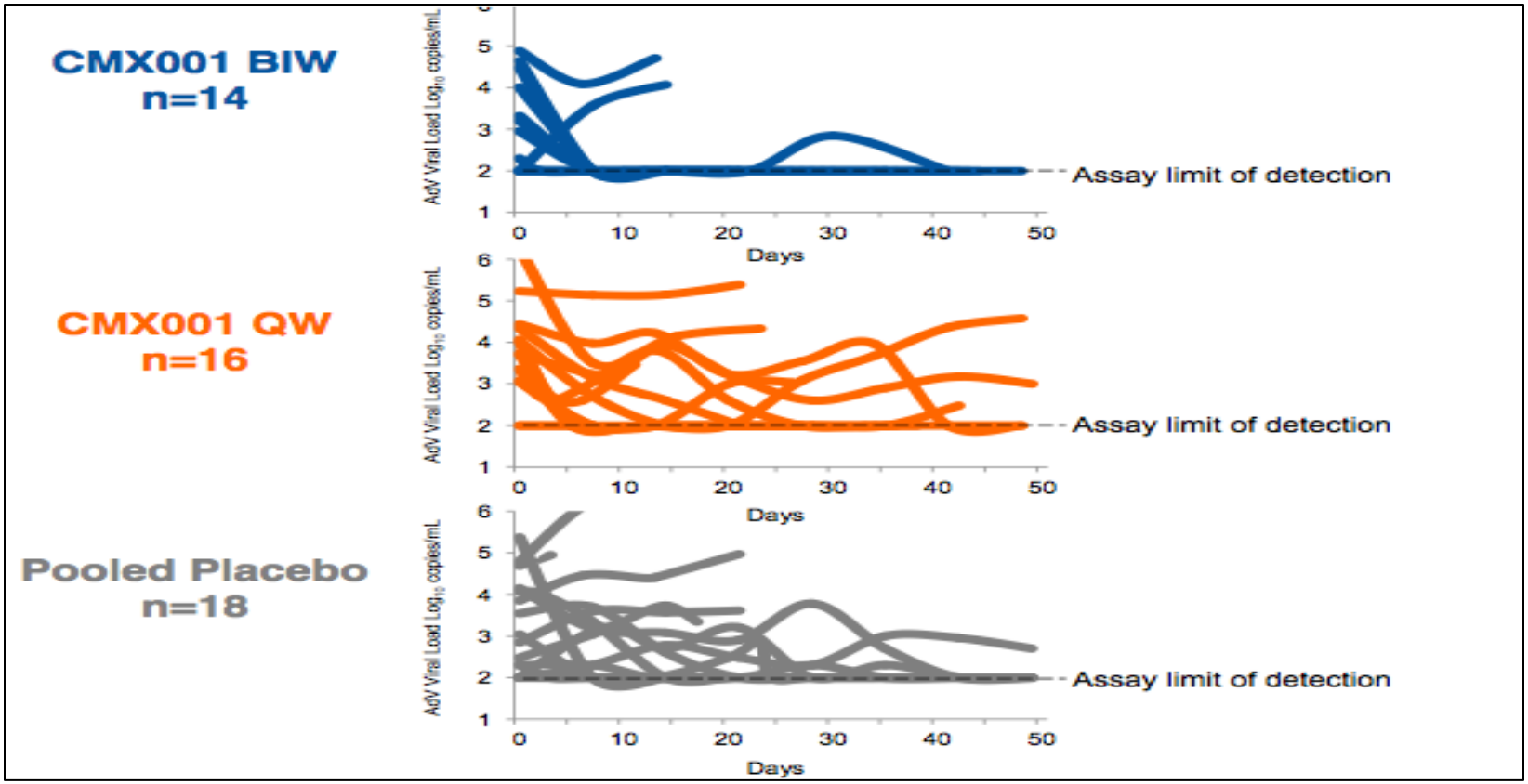
Treatment failure defined as:

- Progression to probable or definitive AdV disease, or
- Confirmed increase from Baseline in AdV viremia by ≥ 1 $\log_{10}$ during blinded therapy

Source: Corporate presentation

The weekly dose showed no benefit, but the twice weekly dose arm showed a suggestive (but obviously statistically non-significant) trend toward benefit.

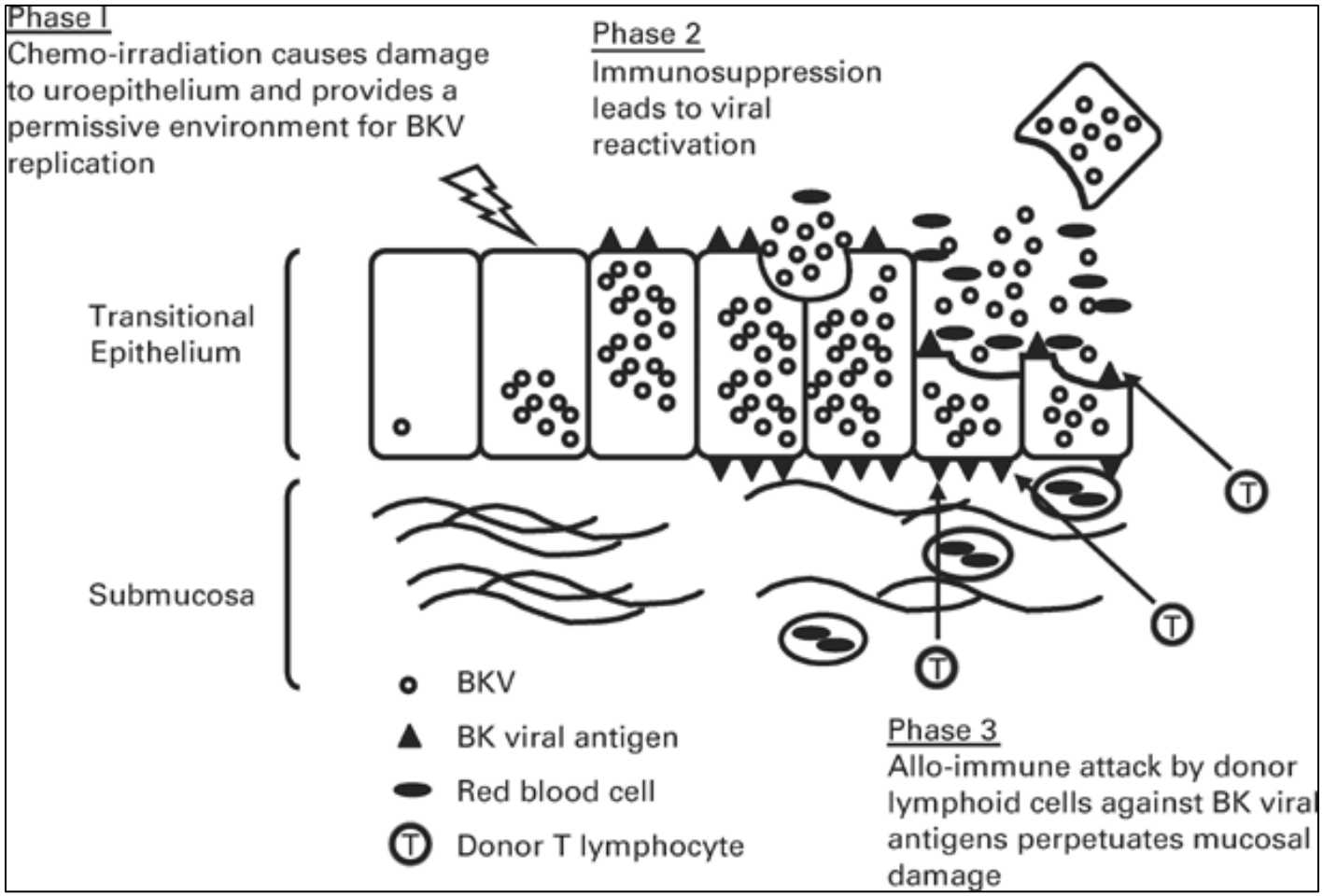
Once Again, Spaghetti Curves Tell A Nicer Story..



Source: Corporate presentation

The weekly dose showed no benefit, but the twice weekly dose arm showed a suggestive (but obviously statistically non-significant) trend toward benefit.

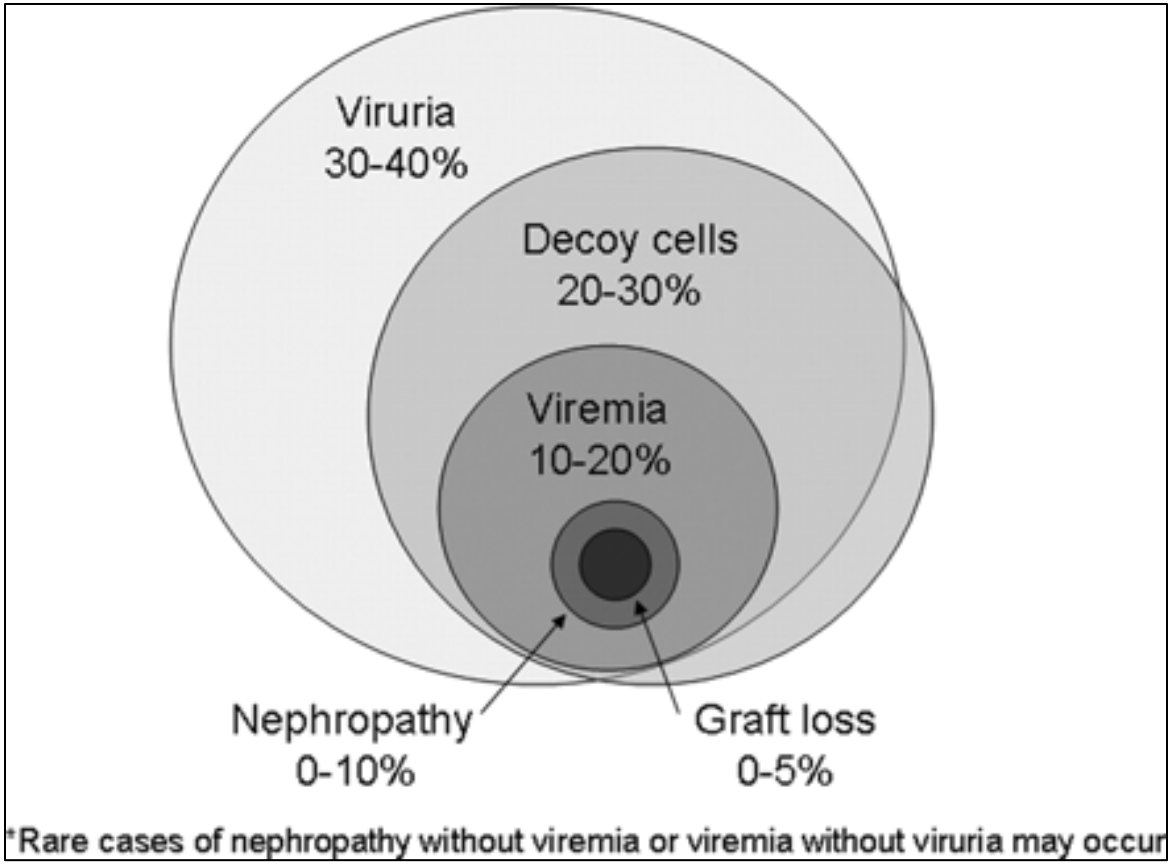
Relevance Of CMX001's Anti-BK Virus Activity: BKV Reactivation And GU Pathology Relevant For Solid Organ Transplant Setting



Chemotherapy and radiation can damage the urinary epithelium, allowing BK virus to begin replicating. The immune suppression allows the virus to reactivate and cause damage to the kidney and bladder.

Source: Leung, BMT 2005

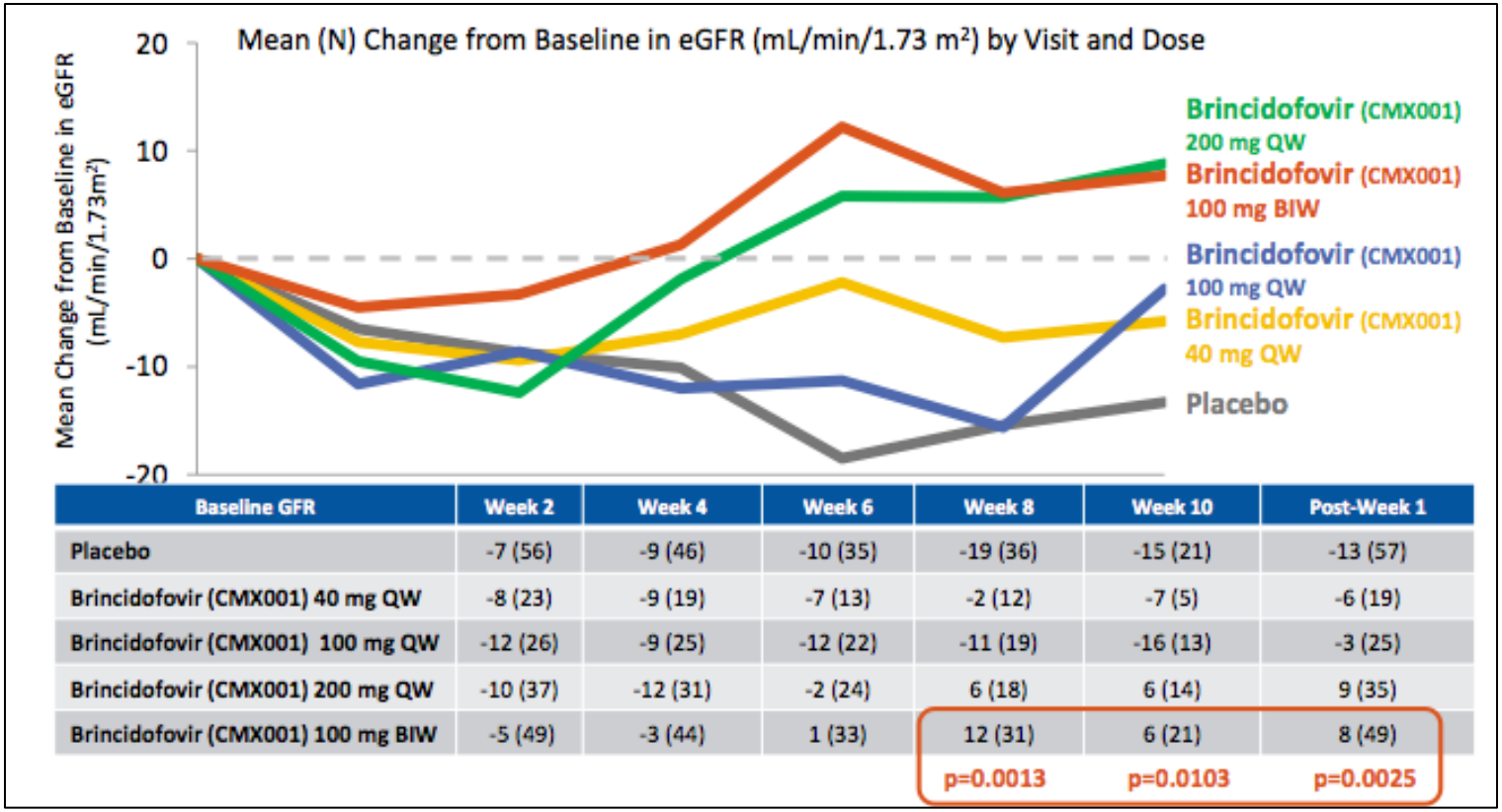
BK Virus Can Be A Problem In The Kidney Transplant Setting



There are nearly 20K kidney transplants performed each year in the U.S.; CMRX may be able to unlock this sizeable population if it can show a meaningful reduction in BK virus related complications such as kidney function.

Source: Bohl, Kidney Transplant. CJASN 2007

Brincidofovir May Also Decrease dsNDA (BK?) Virus Impact on Kidney Function

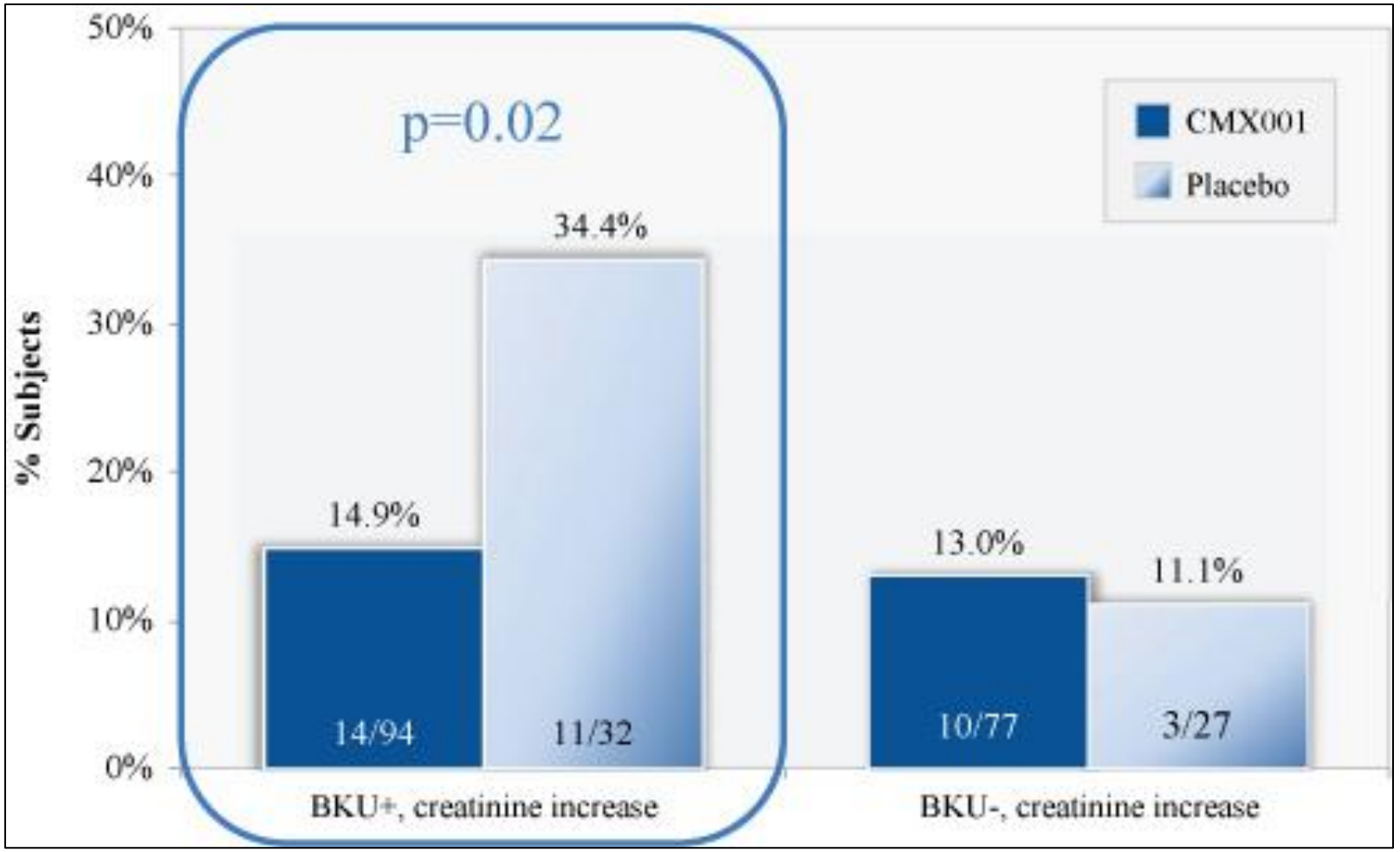


Baseline GFR	Week 2	Week 4	Week 6	Week 8	Week 10	Post-Week 1
Placebo	-7 (56)	-9 (46)	-10 (35)	-19 (36)	-15 (21)	-13 (57)
Brincidofovir (CMX001) 40 mg QW	-8 (23)	-9 (19)	-7 (13)	-2 (12)	-7 (5)	-6 (19)
Brincidofovir (CMX001) 100 mg QW	-12 (26)	-9 (25)	-12 (22)	-11 (19)	-16 (13)	-3 (25)
Brincidofovir (CMX001) 200 mg QW	-10 (37)	-12 (31)	-2 (24)	6 (18)	6 (14)	9 (35)
Brincidofovir (CMX001) 100 mg BIW	-5 (49)	-3 (44)	1 (33)	12 (31)	6 (21)	8 (49)
				p=0.0013	p=0.0103	p=0.0025

Source: CMRX S-1

Potentially through activity on BK virus; this would be an important differentiating factor for entry into the solid organ transplant setting and may form the basis for a study of brincidofovir for full approval (CMV indication may be accelerated approval based on SUPPRESS).

Brincidofovir Favorable GFR Effect Seems Specific For Patients With BK Viruria (BKU)



Source: CMRX S-1

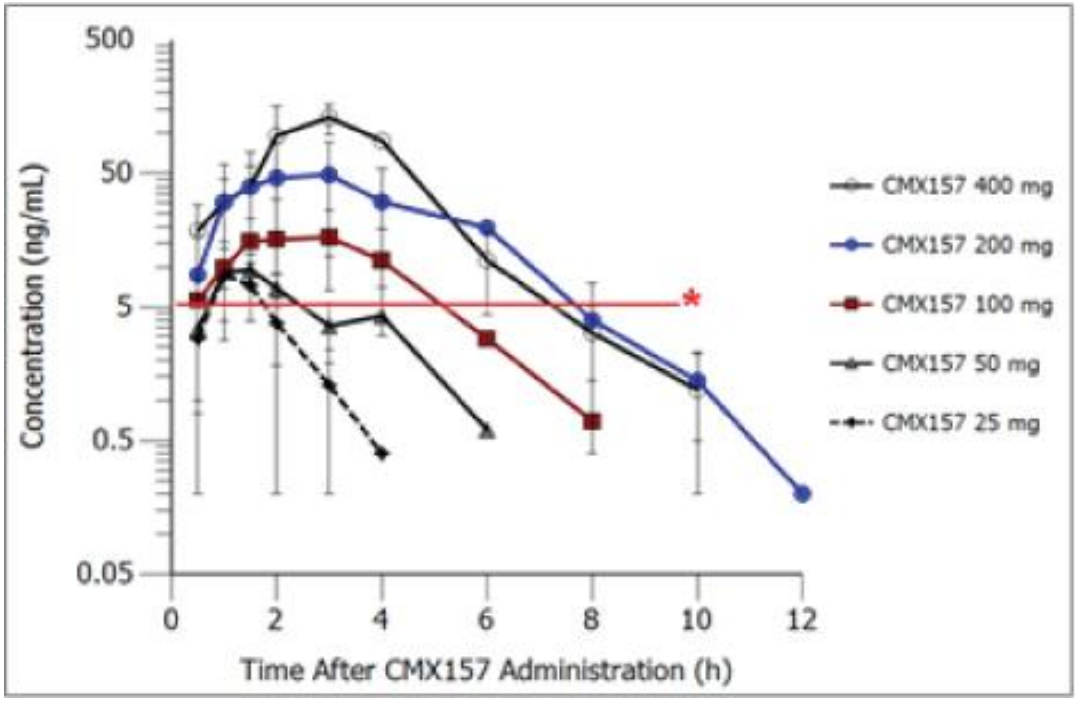
Other Indications For Brincidfovir

- **CMRX is advancing CMX001 as a smallpox stockpile option with funding from BARDA**
  - We ascribe no value to this program but would note that SIGA has a $433M government contract to purchase ST-246 for the Strategic National Stockpile (SNS). SIGA owes half the profit from this contract to PIP. SIGA has a roughly $185M mkt cap.
  - BARDA does have a preference for multiple sources for SNS therapies so CHMX could be in the running for a portion of the final contract.
  - CMRX is finishing the base performance segment; there are up to 4 extension 1-year periods ("option segments" exercised at BARDA's discretion). Could be an incremental ~$50M in reimbursement to cover ongoing development.
  - 2014 will feature ongoing development with data generation from 2 animal species (rabbit, rat). When these are completed and added to the existing safety data, CMRX may have sufficient data to support approval and procure a stockpile contract.
- **CMRX will identify other potential applications of brincidofovir**
  - There may be rare chronic-use applications of the therapy given its benign safety profile.
  - Given the premium price of the drug for short-term use, other Orphan Disease indications with longer-term use could generate meaningful revenue.
  - We expected added color from CMRX on this front in 2014.

Information On CMX157– The Second Drug In The CMRX Pipeline

CMX157 Has Been Developed For The Treatment Of HIV

- CMX157 applies the same principles to tenofovir (Viread) as brincidofovir applies to cidofovir.
  - Viread has low rates of nephrotoxicity that result from its affinity to the HOAT-1 transporter.
  - As the HIV population ages, Viread's potential nephrotoxicity (and effect on BMD) is increasingly a concern for specialists.
  - Long half-life may support infrequent dosing.



Source: CMRX S-1

CMX157 Partnered With MRK

- **Licensed to MRK in July 2012**
  - Upfront $17.5M.
  - Potential for $151M milestones.
  - Tiered high single-digit royalties on sales.

- **Merck could co-formulate with other HIV assets**
  - MK1439 is an NNRT In Phase II.
  - Isentress is approved but requires BID dosing.
  - Epivir is off-patent and available for combination.
  - Tobira has a once-daily CCR5 inhibitor in development that Merck could in-license or acquire.

CMX157 may enable single-pill co-formulation products to compete against GILD's franchise. We currently ascribe essentially no value to this program in our CMRX assessment

CMRX Management Team Brings Experience and Success

Name / Title	Experience
Kenneth I. Moch *President, CEO and Director*	**Alteon** – President and CEO, Chairman **Biocyte Corporation** – President and CEO **The Liposome Company** – Vice President and Co-Founder
Timothy W. Trost *SVP, CFO and Corporate Secretary*	**Argos Therapeutics** – VP and CFO **InteCardia** – SVP and CFO **PricewaterhouseCoopers** – Senior Manager
M. Michelle Berrey, M.D., M.P.H. *Chief Medical Officer*	**Pharmasset** – Chief Medical Officer **GlaxoSmithKline** – Vice President, Viral Diseases, Clinical Pharmacology & Discovery Medicine
Michael D. Rogers, Ph.D. *Chief Development Officer*	**Pharmasset** – Chief Development Officer **GlaxoSmithKline** – Vice President, Division of Viral Diseases, Discovery Medicine, HIV Clinical Research
Hervé Momméja-Marin, M.D. *Vice President, Clinical Research*	**i3 Research, a UnitedHealth Group Company** – Senior Medical Director, Infectious Diseases **Gilead Sciences** – Director of Clinical Research **Triangle Pharmaceuticals** – Clinical Research Physician

Source: CMRX Company Presentation

Experience with antiviral development at VRUS particularly relevant for the brincidofovir program…and brings investors a familiar face with a track record of success.

CMRX Key Milestones				
Program	**Indication**	**Type**	**Event**	**Expected Timing**
Brincidofovir	**CMV Prevention**	**Clinical Data**	**Phase III SUPPRESS Study results**	**Mid-2015**
	Smallpox	Clinical Event	Begin PK studies in healthy volunteers	4Q13
	Smallpox	Clinical Data	Advance pivotal animal studies for BARDA	2014
	AdV Preemptive Therapy	Regulatory	Discuss path forward with FDA	1H14
	CMV Prevention	Regulatory	Discuss path forward with EMEA	1H14
	CMV/Transplant	Regulatory	Define full approval path forward with FDA	1H14
	Solid organ Tx	Clinical Event	Define development path forward	2014
	Pede setting	Clinical Event	Finalize pediatric formulation	1Q14
CMX157	HIV	Clinical Data	Phase II results from MRK	2014?

Source: PJC and Company reports

Discounted Cash Flow (DCF) and Equity Valuation ($ '000):	
Assumed Discount Rate (%)	*11.0%*
Discounted Net Cash Flow (2014-'22)	**$179**
Terminal Growth Rate (%)	*3.0%*
Implied Terminal Year FCF Multiple	**12.9x**
NPV of FCF	**$1,236**
Terminal value as % of total	*85.5%*
Shares Outstanding 2018E (million)	41
Cash balance	128.5
Price Target	**$33**
Current Price	$15.10
Mkt Cap, Current Share Count	**$436**
Implied Mkt Cap, Price Target	**$955**
Implied Multiple on 2020 Rev	2.0x

Source: Company Reports and Piper Jaffray.

CMRX Price Target Sensitivity Analysis					
		Discount Rate			
		10.0%	11.0%	12.0%	13.0%
Terminal Growth	1.0%	$32	$28	$24	$21
	2.0%	$36	$30	$26	$22
	3.0%	$40	**$33**	$28	$24
	4.0%	$46	$37	$31	$26
	5.0%	$54	$42	$34	$28
EPS growth rate in 2022:			**19.1%**		

Source: Company Reports and Piper Jaffray.

CMRX Potential Upside From Current Levels					
		Discount Rate			
		10.0%	11.0%	12.0%	13.0%
Terminal Growth	1.0%	115%	83%	57%	36%
	2.0%	137%	99%	69%	46%
	3.0%	165%	**119%**	84%	57%
	4.0%	203%	145%	103%	71%
	5.0%	256%	180%	127%	88%

Source: Company Reports and Piper Jaffray.

Chimerix Quarterly P&L	2012A	1Q13A	2Q13A	3Q13A	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E
Total Product Revenue	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Collaboration/license/royalty revenue	17.4	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
Contract/grant revenue	16.3	1.8	0.8	0.9	1.0	4.5	1.0	1.0	1.0	1.0	4.0
Total Revenue	**$33.7**	**$1.8**	**$0.8**	**$0.9**	**$1.0**	**$5.7**	**$1.0**	**$1.0**	**$1.0**	**$1.0**	**$4.0**
Operating Expenses:											
COGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R&D	27.8	6.5	6.3	5.3	8.0	26.1	11.0	12.0	12.0	12.0	47.0
SG&A	8.7	1.8	2.2	2.0	3.0	9.0	2.5	2.5	2.5	2.5	10.0
Other Operating Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Operating Expenses	**36.5**	**8.3**	**8.5**	**7.3**	**11.0**	**35.1**	**13.5**	**14.5**	**14.5**	**14.5**	**57.0**
Stock-based compensation	1.4	0.3	2.3	0.3	2.0	4.9	2.0	2.0	2.0	2.0	8.0
Operating Income (GAAP)	**(2.8)**	**(6.5)**	**(7.7)**	**(6.4)**	**(10.0)**	**(29.4)**	**(12.5)**	**(13.5)**	**(13.5)**	**(13.5)**	**(53.0)**
Operating Income (non-GAAP)	**(1.4)**	**(6.3)**	**(5.3)**	**(6.2)**	**(8.0)**	**(24.6)**	**(10.5)**	**(11.5)**	**(11.5)**	**(11.5)**	**(45.0)**
Interest income (expense)	(0.8)	(0.4)	(0.4)	(0.3)	(0.2)	(1.2)	0.0	0.0	0.0	0.0	0.0
FV warrant liability adjustment	(0.8)	(2.2)	(4.4)	0.0	0.0	(6.6)	0.0	0.0	0.0	0.0	0.0
Other income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GAAP Income Before Taxes	**(4.4)**	**(9.1)**	**(12.5)**	**(6.7)**	**(10.2)**	**(37.3)**	**(12.5)**	**(13.5)**	**(13.5)**	**(13.5)**	**(53.0)**
non-GAAP Income Before Taxes	**(3.0)**	**(8.8)**	**(10.1)**	**(6.4)**	**(8.2)**	**(32.4)**	**(10.5)**	**(11.5)**	**(11.5)**	**(11.5)**	**(45.0)**
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax rate	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Net Income as Reported/GAAP	(4.4)	(34.6)	(21.0)	(6.7)	(10.2)	(37.3)	(12.5)	(13.5)	(13.5)	(13.5)	(53.0)
Net Income as Reported/ non-GAAP	(3.0)	(34.4)	(18.7)	(6.4)	(8.2)	(32.4)	(10.5)	(11.5)	(11.5)	(11.5)	(45.0)
Diluted EPS (non-GAAP)	**($0.56)**	**($22.40)**	**($0.81)**	**($0.25)**	**($0.28)**	**($1.63)**	**($0.39)**	**($0.43)**	**($0.43)**	**($0.43)**	**($1.68)**
Diluted EPS (as reported/GAAP)	**($0.81)**	**($22.58)**	**($0.91)**	**($0.26)**	**($0.35)**	**($1.88)**	**($0.47)**	**($0.51)**	**($0.50)**	**($0.50)**	**($1.98)**
Shares outstanding	5.4	1.5	23.1	25.9	28.9	19.8	26.6	26.7	26.8	26.9	26.8

Source: Company reports, PJC analyst estimates

Joshua Schimmer: 212-284-9322

Brincidofovir Revenue Model	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
($ in millions, except per share amounts)									
Market Model, Brincidofovir									
U.S. stem cell transplants	20,300	20,600	20,900	21,150	21,400	21,650	21,900	22,150	22,400
% allogeneic	*40%*	*40%*	*40%*	*40%*	*40%*	*40%*	*40%*	*40%*	*40%*
U.S. allogeneic STCs	8120	8240	8360	8460	8560	8660	8760	8860	8960
% adult	*75%*	*75%*	*75%*	*75%*	*75%*	*74%*	*74%*	*73%*	*73%*
U.S. adult allogeneic STCs	6090	6180	6270	6345	6420	6408	6482	6468	6541
% at risk for CMV reactivation	*70%*	*70%*	*70%*	*70%*	*70%*	*70%*	*70%*	*70%*	*70%*
U.S. adult high CMV risk allogeneic STCs	4263	4326	4389	4442	4494	4486	4538	4527	4579
Brincidofovir penetration	*0%*	*0%*	*0%*	*0%*	*15%*	*30%*	*45%*	*55%*	*55%*
U.S. Brincidofovir patients, adult allogeneic SCT	0	0	0	0	674	1346	2042	2490	2518
Price/regimen	$40	$40	$40	$40	$41	$42	$43	$45	$47
Revenue, adult allogeneic SCT, U.S.	**$0**	**$0**	**$0**	**$0**	**$28**	**$56**	**$88**	**$112**	**$118**
Pediatric allogeneic SCT, U.S.	2030	2060	2090	2115	2140	2252	2278	2392	2419
Brincidofovir penetration	*0%*	*0%*	*0%*	*0%*	*15%*	*25%*	*35%*	*45%*	*55%*
U.S. patients, pede allogeneic SCT	0	0	0	0	321	563	797	1076	1331
Revenue, Pede allogeneic SCT, U.S.	**$0**	**$0**	**$0**	**$0**	**$13**	**$23**	**$35**	**$48**	**$62**
Other dsDNA prophylaxis/treatment settings	$0	$0	$0	$0	$0	$10	$20	$40	$60
U.S. Brincidofovir Revenue	**$0**	**$0**	**$0**	**$0**	**$41**	**$89**	**$143**	**$201**	**$240**
Ex-U.S. Brincidofovir Revenue	**$0**	**$0**	**$0**	**$0**	**$35**	**$70**	**$140**	**$180**	**$220**

Source: PJC analyst estimates

Chimerix P&L	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Total Product Revenue	**0.0**	**0.0**	**0.0**	**0.0**	**75.6**	**159.4**	**282.9**	**380.5**	**460.2**
Collaboration/license/royalty revenue	17.4	1.2	0.0	0.0	0.0	10.0	5.0	5.0	5.0
Contract/grant revenue	16.3	4.5	4.0	5.0	5.0	8.0	8.0	5.0	5.0
Total Revenue	**$33.7**	**$5.7**	**$4.0**	**$5.0**	**80.6**	**177.4**	**295.9**	**390.5**	**470.2**
Operating Expenses:									
COGS	0.0	0.0	0.0	0.0	7.6	15.9	28.3	38.1	46.0
R&D	27.8	26.1	47.0	45.0	70.0	90.0	95.0	100.0	105.0
SG&A	8.7	9.0	10.0	17.0	85.0	120.0	130.0	140.0	150.0
Other Operating Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Operating Expenses	**36.5**	**35.1**	**57.0**	**62.0**	**162.6**	**225.9**	**253.3**	**278.1**	**301.0**
Stock-based compensation	1.4	4.9	8.0	10.0	12.0	13.0	14.0	15.0	16.0
Operating Income (GAAP)	**(2.8)**	**(29.4)**	**(53.0)**	**(57.0)**	**(82.0)**	**(48.5)**	**42.6**	**112.5**	**169.2**
Operating Income (non-GAAP)	**(1.4)**	**(24.6)**	**(45.0)**	**(47.0)**	**(70.0)**	**(35.5)**	**56.6**	**127.5**	**185.2**
Interest income (expense)	(0.8)	(1.2)	0.0	0.5	(1.0)	0.0	1.0	3.0	6.0
FV warrant liability adjustment	(0.8)	(6.6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GAAP Income Before Taxes	**(4.4)**	**(37.3)**	**(53.0)**	**(56.5)**	**(83.0)**	**(48.5)**	**43.6**	**115.5**	**175.2**
non-GAAP Income Before Taxes	**(3.0)**	**(32.4)**	**(45.0)**	**(46.5)**	**(71.0)**	**(35.5)**	**57.6**	**130.5**	**191.2**
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	14.4	38.1	57.8
Tax rate	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*33.0%*	*33.0%*	*33.0%*
Net Income as Reported/GAAP	(4.4)	(37.3)	(53.0)	(56.5)	(83.0)	(48.5)	29.2	77.4	117.4
Net Income as Reported/ non-GAAP	(3.0)	(32.4)	(45.0)	(46.5)	(71.0)	(35.5)	43.2	92.4	133.4
Diluted EPS (non-GAAP)	**($0.56)**	**($1.63)**	**($1.68)**	**($1.36)**	**($2.01)**	**($0.93)**	**$1.05**	**$2.19**	**$3.08**
Y/Y	*N/M*	*N/M*	*N/M*	*N/M*	*N/M*	*N/M*	*N/M*	*108.7%*	*41.0%*
Diluted EPS (as reported/GAAP)	**($0.81)**	**($1.88)**	**($1.98)**	**($1.65)**	**($2.35)**	**($1.27)**	**$0.71**	**$1.83**	**$2.71**
Shares outstanding	5.4	19.8	26.8	34.3	35.3	38.3	41.3	42.3	43.3

Source: Company reports, PJC analyst estimates

Chimerix Cash Flow Statement	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Cash Flows from Operating Activities:									
Net income	**(4)**	**(37)**	**(53)**	**(57)**	**(83)**	**(49)**	**29**	**77**	**117**
Depreciation	0	0	0	1	1	1	1	1	2
Use of NOLs	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**39**	**0**
Non-cash interest expense	0	0	0	1	0	0	0	0	0
Amortization/accretion of invest.	0	0	0	0	0	0	0	0	0
Share-based comp	1	5	8	10	12	13	14	15	16
Deferred lease obligation	0	0	0	0	0	0	0	0	0
FV measure of warrant liability	1	7	0	0	0	0	0	0	0
Change in NWC	(0)	(1)	0	(10)	(15)	5	10	0	0
Net Cash Provided by Operating Activities	**(2)**	**(26.2)**	**(45.0)**	**(55.3)**	**(85.2)**	**(29.6)**	**69.3**	**132.5**	**135.4**
Cash Flows from Investing Activities:									
PP&E	(0)	(0)	0	(1)	(2)	(2)	(2)	(2)	(2)
Other	0	0	0	0	0	0	0	0	0
Free Cash Flow	**(2)**	**(26)**	**(45)**	**(56)**	**(87)**	**(32)**	**67**	**130**	**133**
Cash Flows from Financing Activities:									
Issuance preferred stock/warrants	0	0	0	0	0	0	0	0	0
Exercise of options	0	0	0	0	0	0	0	0	0
Loan payable proceeds/repayment	12	(5)	0	(5)	(8)	0	0	0	0
Debt discount	(0)	0	0	0	0	0	0	0	0
Stock offering/financing costs	(0)	148	0	150	0	50	0	0	0
Net Cash Used in Financing Activities	**12**	**143**	**0**	**145**	**(8)**	**50**	**0**	**0**	**0**
Cash/equivalents	**30**	**140**	**95**	**184**	**89**	**107**	**175**	**305**	**439**
Debt		12	12	12	12				

Source: Company reports, PJC analyst estimates

IMPORTANT RESEARCH DISCLOSURES

Notes: The boxes on the Rating and Price Target History chart above indicate the date of the Research Note, the rating, and the price target. Each box represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first Note written during the past three years.

Legend:
I: Initiating Coverage
R: Resuming Coverage
T: Transferring Coverage
D: Discontinuing Coverage
S: Suspending Coverage
OW: Overweight
N: Neutral
UW: Underweight
NA: Not Available
UR: Under Review

Distribution of Ratings/IB Services
Piper Jaffray

			IB Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent
BUY [OW]	339	57.07	72	21.24
HOLD [N]	231	38.89	15	6.49
SELL [UW]	24	4.04	1	4.17

Note: Distribution of Ratings/IB Services shows the number of companies currently in each rating category from which Piper Jaffray and its affiliates received compensation for investment banking services within the past 12 months. FINRA rules require disclosure of which ratings most closely correspond with "buy," "hold," and "sell" recommendations. Piper Jaffray ratings are not the equivalent of buy, hold or sell, but instead represent recommended relative weightings. Nevertheless, Overweight corresponds most closely with buy, Neutral with hold and Underweight with sell. See Stock Rating definitions below.

Analyst Certification — Joshua E. Schimmer, MD, Sr Research Analyst

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