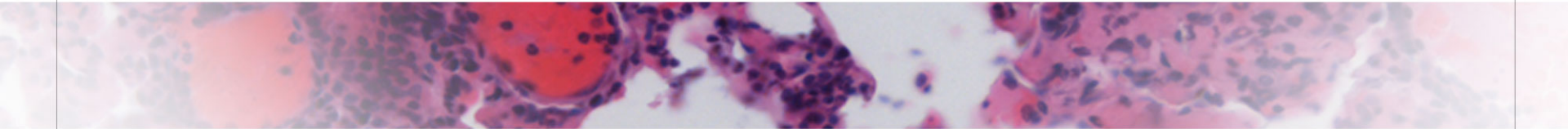




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**Phase 1 Study of Axatilimab (SNDX-6352),  
a CSF-1R Humanized Antibody, For Chronic Graft-Versus-Host  
Disease after 2 or More Lines of Systemic Treatment**

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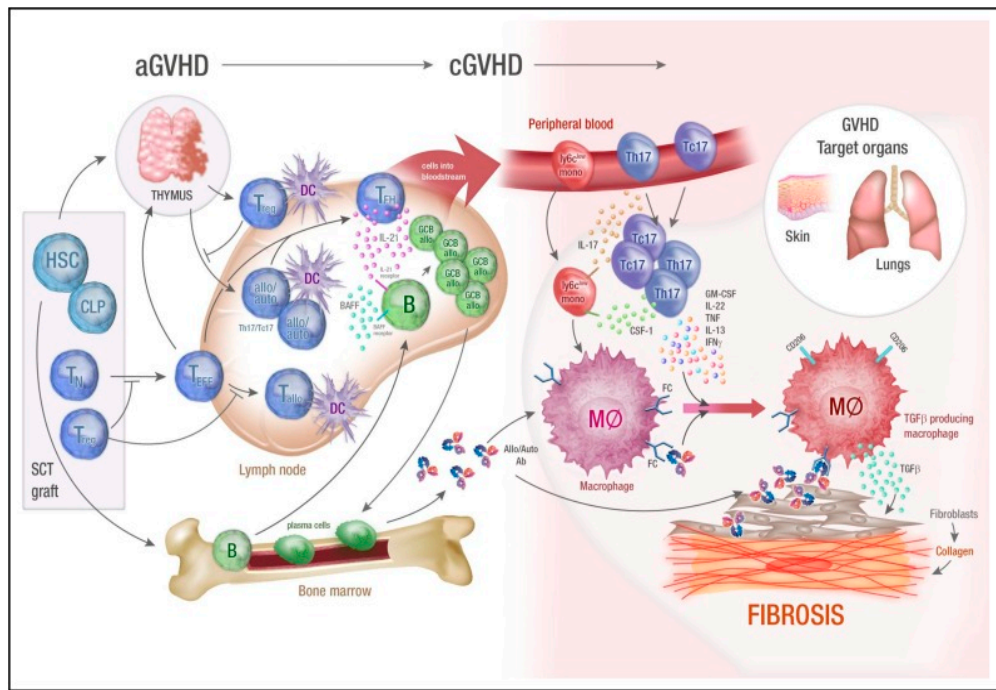
# Chronic GVHD incidence and limited treatment options



- Chronic GVHD commonly affects 30-50% of allogeneic HCT recipients
- Corticosteroids are the standard frontline treatment
- Approximately 50% of the patients need second line treatment for disease progression or inadequate response
- Ibrutinib is the only approved second line treatment of chronic GVHD
- Morbidity and mortality in patients needing second or further lines of therapy remains high
- Amongst patients with chronic GVHD, those with sclerosis and lung involvement are often difficult to treat and associated with poor outcomes
- Development of novel agents to treat chronic GVHD remains an unmet medical need



# CSF-1–dependent donor derived macrophages in models of cGVHD



- cGVHD particularly sclerodermatous and pulmonary disease is associated with CSF-1R dependent donor macrophages
- CSF-1/CSF-1R regulates macrophage infiltration and cutaneous pathology
- Anti-CSF-1R depletes circulating non-classical monocytes, tissue macrophage infiltration and reduces GVHD associated tissue pathology

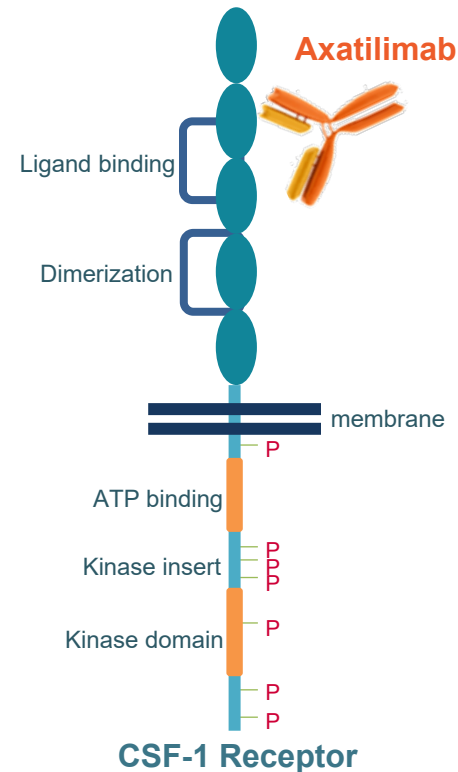
Source: Alexander KA et al 2014 JCI.

Figure Adapted from MacDonald KP et al. *Blood*. 2017;129(1):13-21. HSCT, hematopoietic stem cell transplantation.



# Axatilimab, anti-CSF1R mAb targeting macrophage driven diseases

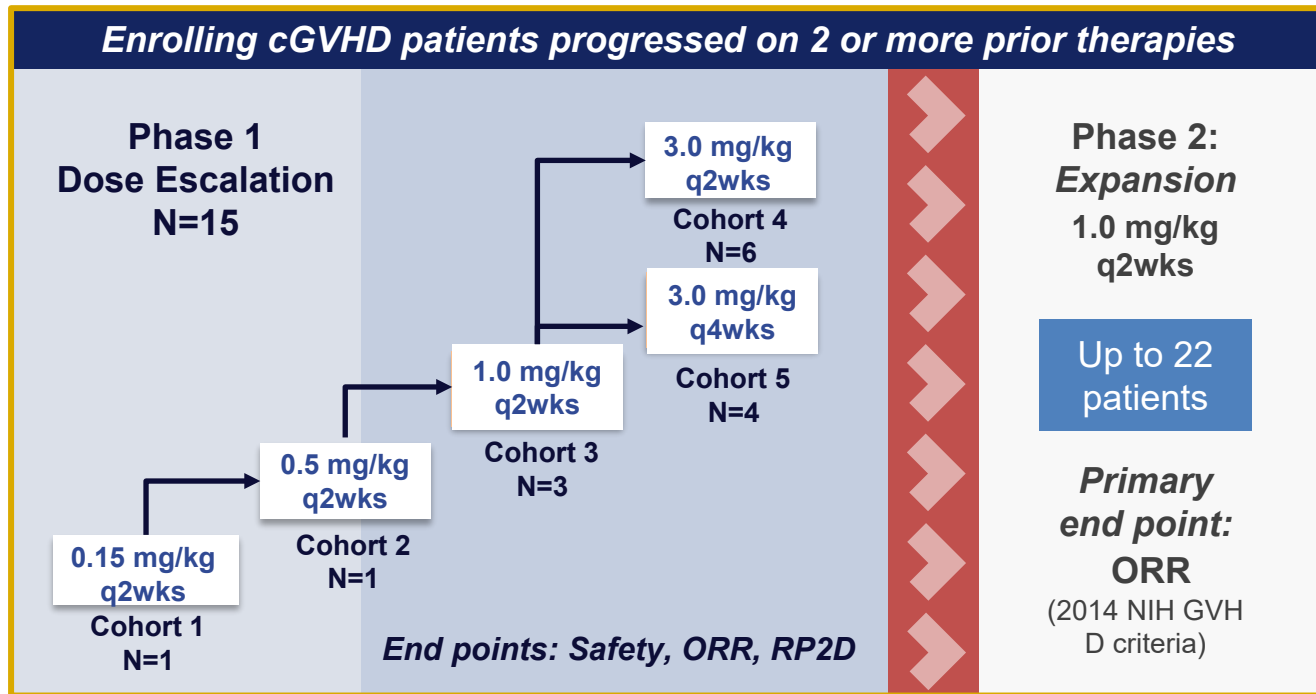
<b>Subtype</b>	IgG4
<b>Binding properties</b>	<ul style="list-style-type: none"><li>• Human CSF-1R ligand binding domain (Kd 4-8pM);</li><li>• Blocks both CSF-1 and IL-34;</li><li>• No evidence of antibody mediated receptor internalization or activation</li></ul>
<b>Specificity</b>	All human CSF-1R variants (V32G, A245S, P247H, V279M)
<b>In vitro</b>	Inhibits ligand induced monocyte activation (IC <sub>50</sub> 100-400 pM)



# Axatilimab: Phase 1 / 2 trial establishes proof of concept in cGVHD

## Study Population

- Active cGVHD after  $\geq 2$  prior treatments
- Karnofsky Performance scale  $\geq 60$
- $\geq 6$  years of age



# Baseline demographics & characteristics

Characteristic	<1mg/kg q2wk n=2 <sup>1,2</sup>	1mg/kg q2wk n=3	3 mg/kg q2wk n=6	3 mg/kg q4wk n=4	Total N=15
Age, median (range), years	56 (48, 64)	36 (29, 66)	60 (53, 73)	63 (31, 73)	<b>60 (29, 73)</b>
Myeloablative transplant n, (%)	1 (50) <sup>2</sup>	1 (33)	2 (33)	3 (75)	<b>7 (47)</b>
Related Donor	2 (100)	2 (67)	4 (67)	1 (25)	9 (60)
Matched unrelated Donor	0	1 (33)	2 (33)	3 (75)	6 (40)
Peripheral blood SCT	2 (100)	3 (100)	5 (83)	4 (100)	<b>14 (93)</b>
Transplant→cGVHD, median (range), months	6.1 (3.4, 8.8)	3.7 (0.2, 5.7)	12.1 (5.2, 24.2)	9.2 (2.3, 20)	<b>6.8 (0.2, 24.2)</b>
cGVHD→C1D1	27 (18, 36)	46.8 (34.8, 85.2)	49.2 (20.4, 187.2)	25.2 (9.6, 42)	<b>42 (9.6, 187.2)</b>
KPS at enrollment, median (range)	85 (80, 90)	70 (70, 90)	75 (60, 80)	80 (70, 100)	<b>80 (60, 100)</b>
# organs involved, median (range)	3.5 (3, 4)	3 (2, 5)	4 (1, 5)	3.5 (2, 9)	<b>4 (1, 9)</b>
≥4 organs involved	1 (50) <sup>2</sup>	1 (33)	4 (67)	2 (50)	<b>8 (53)</b>
Prior tx, median (range)	5.5 (4, 7)	7 (4, 9)	4.5 (3, 7)	3 (2, 6)	<b>4 (2, 9)</b>
Ibrutinib, n (%)	2 (100)	3 (100)	6 (100)	0	<b>11 (73)</b>
Ruxolitinib	2 (100)	1 (33)	4 (67)	2 (50)	<b>9 (60)</b>
KD025	1 (50) <sup>2</sup>	1 (33)	3 (50)	0	<b>5 (33)</b>

<sup>1</sup> Includes one patient from 0.15mg/kg q2wk dosing cohort. <sup>2</sup> Includes one patient from 0.5mg/kg q2wk dosing cohort. Abbreviations: SCT=stem-cell transplant, KPS=Karnofsky Performance Score, tx=treatment, q=every  
Data cut-off 30Oct2020.



# Axatilimab: Summary of treatment-emergent adverse events (TEAES)

Characteristic	<1mg/kg q2wk n=2 <sup>1,2</sup>	1mg/kg q2wk n=3	3 mg/kg q2wk n=6	3 mg/kg q4wk n=4
<b>TEAE Related</b>	2 (100)	3 (100)	6 (100)	4 (100)
<b>TEAE Gr 3/4</b>	2 (100)	2 (67)	4 (67)	2 (50)
Gr 3/4 Related	1 (50) <sup>1</sup>	1 (33)	3 (50)	2 (50)
<b>Discontinued Tx</b>	<b>2 (100)</b>	<b>2 (67)</b>	<b>3 (50)</b>	<b>1 (25)</b>
Progression	1 (100) <sup>1</sup>	1 (33)	0	0
Adverse Event	0	0	1 (17)	0
MD decision	1 (100) <sup>2</sup>	0	1 (17)	1 (25)
Deceased	0	1 (33)	0	0
Other	0	0	1 (17)	0

- **Grade 3/4 events occurring  $\geq$  2 patients include:** CK increased (n=3), AST increased (n=2), Pneumonia (n=2)
- **One Grade 5 event occurred unrelated to axatilimab:** Fall (n=1)

<sup>1</sup> Includes one patient from 0.15mg/kg q2wk dosing cohort. <sup>2</sup> Includes one patient from 0.5mg/kg q2wk dosing cohort. Abbreviations: Gr=grade, tx=treatment, q=every. Data cut-off 30Oct2020.



## Axatilimab: TEAEs occurring in at least 5 patients, all grades regardless of causality

Characteristic	<1mg/kg q2wk n=2 <sup>1,2</sup>	1mg/kg q2wk n=3	3 mg/kg q2wk n=6	3 mg/kg q4wk n=4	Total N=15
<b>TEAE term, n (%)</b>					
AST increased	1 (50) <sup>1</sup>	1 (33)	4 (67)	3 (75)	<b>9 (60)</b>
CPK increased	0	1 (33)	5 (83)	3 (75)	<b>9 (60)</b>
LDH increased	1 (50) <sup>2</sup>	2 (67)	4 (67)	2 (50)	<b>9 (60)</b>
Amylase increased	1 (50) <sup>1</sup>	1 (33)	4 (67)	0	<b>6 (40)</b>
Fatigue	1 (50) <sup>2</sup>	0	3 (50)	2 (50)	<b>6 (40)</b>
Lipase increased	0	1 (33)	3 (50)	2 (50)	<b>6 (40)</b>
ALT increased	1 (50) <sup>1</sup>	0	3 (50)	1 (25)	<b>5 (33)</b>
Creatinine increased	0	1 (33)	2 (33)	2 (50)	<b>5 (33)</b>
Nausea	2 (100)	0	3 (50)	0	<b>5 (33)</b>
Pyrexia	0	1 (33)	4 (67)	0	<b>5 (33)</b>

<sup>1</sup> Includes one patient from 0.15mg/kg q2wk dosing cohort. <sup>2</sup> Includes one patient from 0.5mg/kg q2wk dosing cohort. Abbreviations: q=every  
Data cut-off 30Oct2020.





# Axatilimab: All infection events, all grades regardless of causality

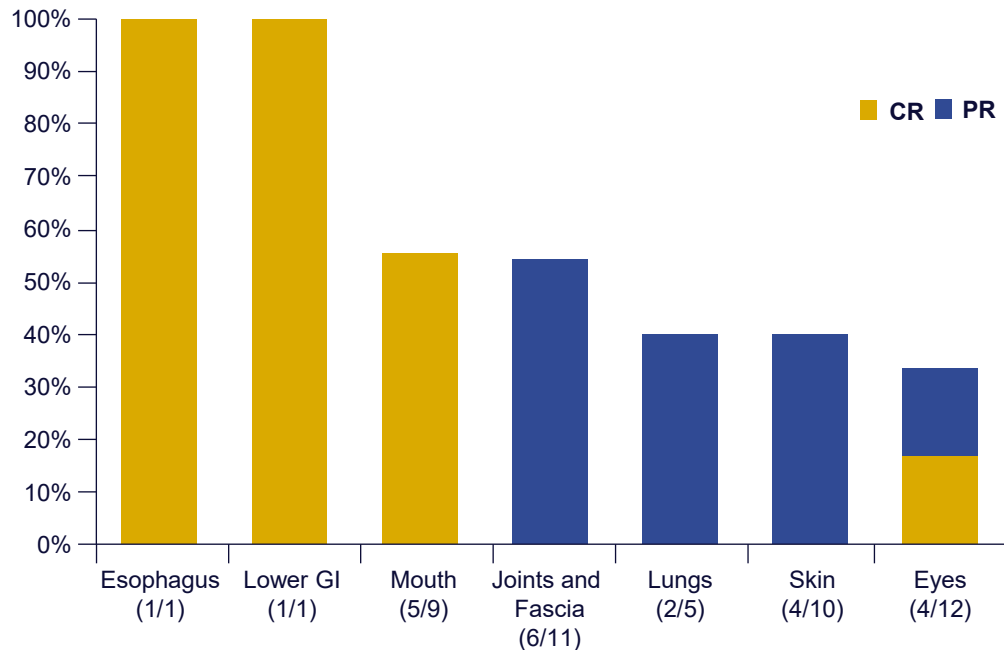
Characteristic	<1mg/kg q2wk n=2 <sup>1,2</sup>	1mg/kg q2wk n=3	3 mg/kg q2wk n=6	3 mg/kg q4wk n=4	Total N=15
<b>TEAE term, n (%)</b>					
Pneumonia	1 (50) <sup>2</sup>	1 (33)	0	1 (25)	<b>3 (20)</b>
Conjunctivitis	1 (50) <sup>1</sup>	0	0	0	<b>1 (7)</b>
Gastroenteritis norovirus	0	0	1 (17)	0	<b>1 (7)</b>
Influenza	0	1 (33)	0	0	<b>1 (7)</b>
Lung infection	0	1 (33)	0	0	<b>1 (7)</b>
Pseudomonas infection <sup>3</sup>	0	0	0	1 (25)	<b>1 (7)</b>
URI	0	1 (33)	0	0	<b>1 (7)</b>

- 9 events of infection were reported in six patients with two patients experiencing multiple events (pneumonia, influenza and URI, n=1; pseudomonas and pneumonia, n=1)
- No CMV viral reactivations were reported

<sup>1</sup> Includes one patient from 0.15mg/kg q2wk dosing cohort. <sup>2</sup> Includes one patient from 0.5mg/kg q2wk dosing cohort<sup>3</sup> Pseudomonas infection to foot (dermal ulcers)  
 Abbreviations: URI=Upper-respiratory infection, q=every  
 Data cut-off 30Oct2020.

# Axatilimab: Response seen across cGVHD organ system involvement

## Organ-specific Response Rate



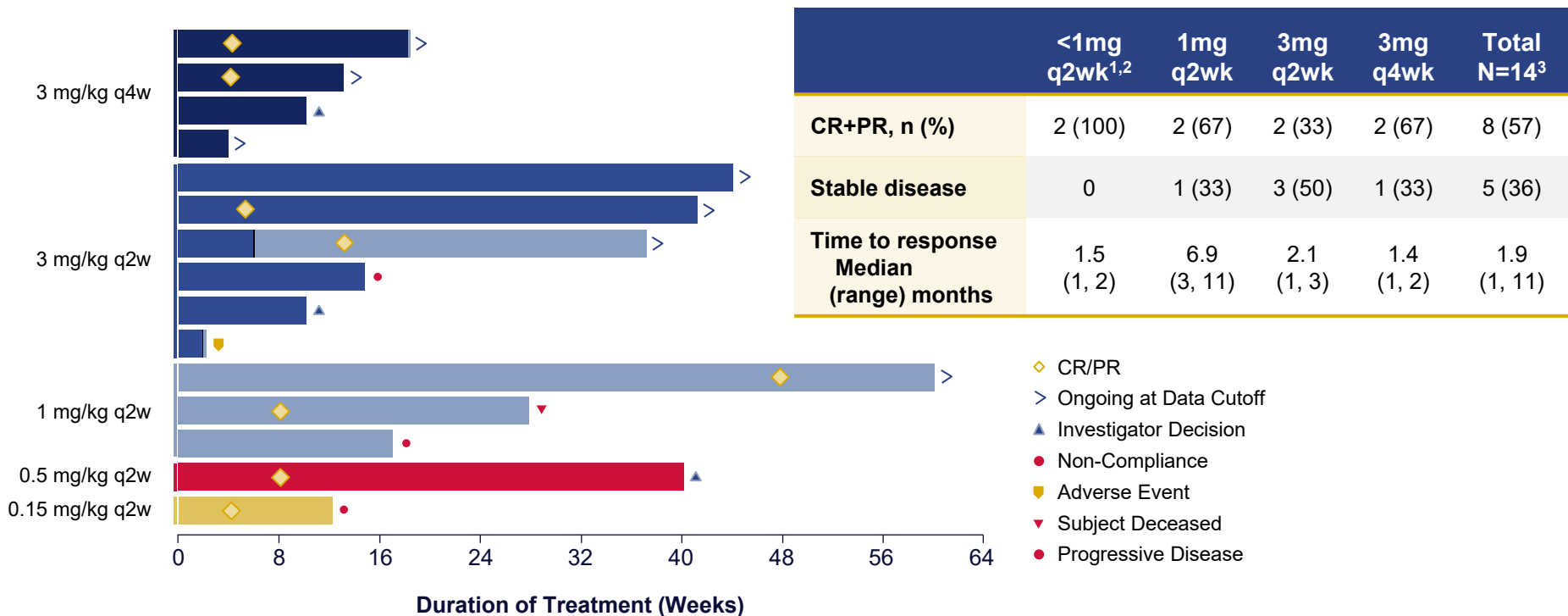
- Responses observed at all dose levels
- Deep and sustained responses observed across several organ systems
- Responses seen after prior Ibrutinib = 6; Ruxolitinib = 5; KD-025 = 3

Abbreviation: CR=complete response, PR=partial response

Data cut-off 30Oct2020.



# Axatilimab: Early evidence of symptom control in the heavily pretreated patients



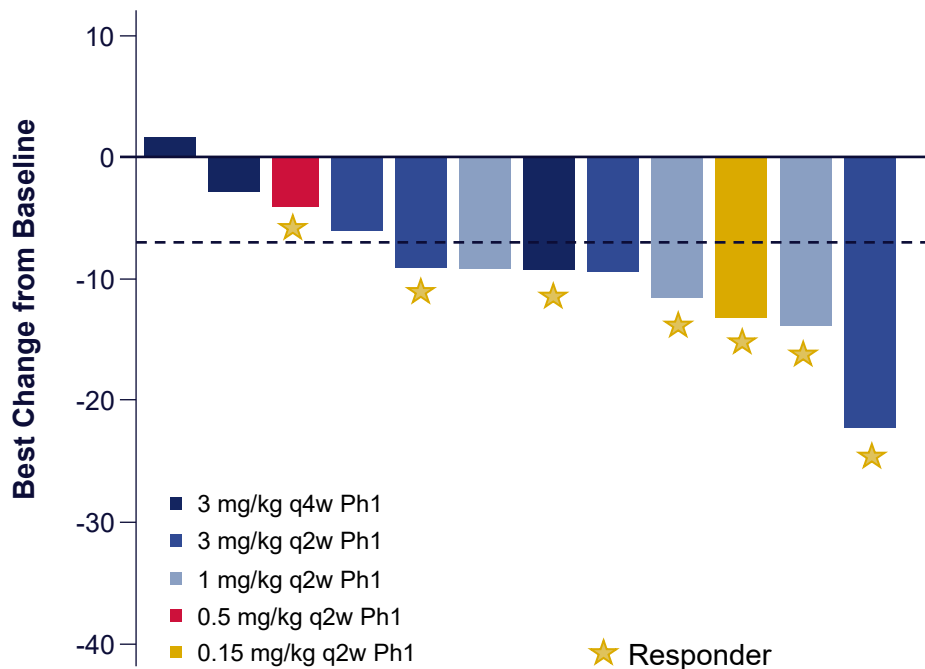
<sup>1</sup> Includes one patient from 0.15mg/kg q2wk dosing cohort. <sup>2</sup> Includes one patient from 0.5mg/kg q2wk dosing cohort<sup>3</sup> One patient did not have a post-baseline response assessment at time of data cut-off. Abbreviation: CR=complete response, PR=partial response, q=every Data cut-off 30Oct2020.



# Axatilimab: Improved Lee symptom scores in a majority of patients



## Waterfall Plot for Normalized Lee Symptom Scale



Data cut-off 30Oct2020.

- Best change in Lee Symptom score across five dosing cohorts noted improvement in a majority of patients
- Median reduction (points): -9.13 (range -22.28, 1.67)
- 8 (67%) of 12 patients evaluable achieved a 7-point reduction from baseline
- One patient (3mg/kg q4wk cohort) experienced an increase in Lee symptom score and stopped treatment after 3 cycles



# Axatilimab effective in sclerodermatous cGVHD

- Patient experienced chronic ulcers unresponsive to prior therapies
- Treatment with 1mg/kg q2wk axatilimab led to significant improvement in ulceration



5/15/19

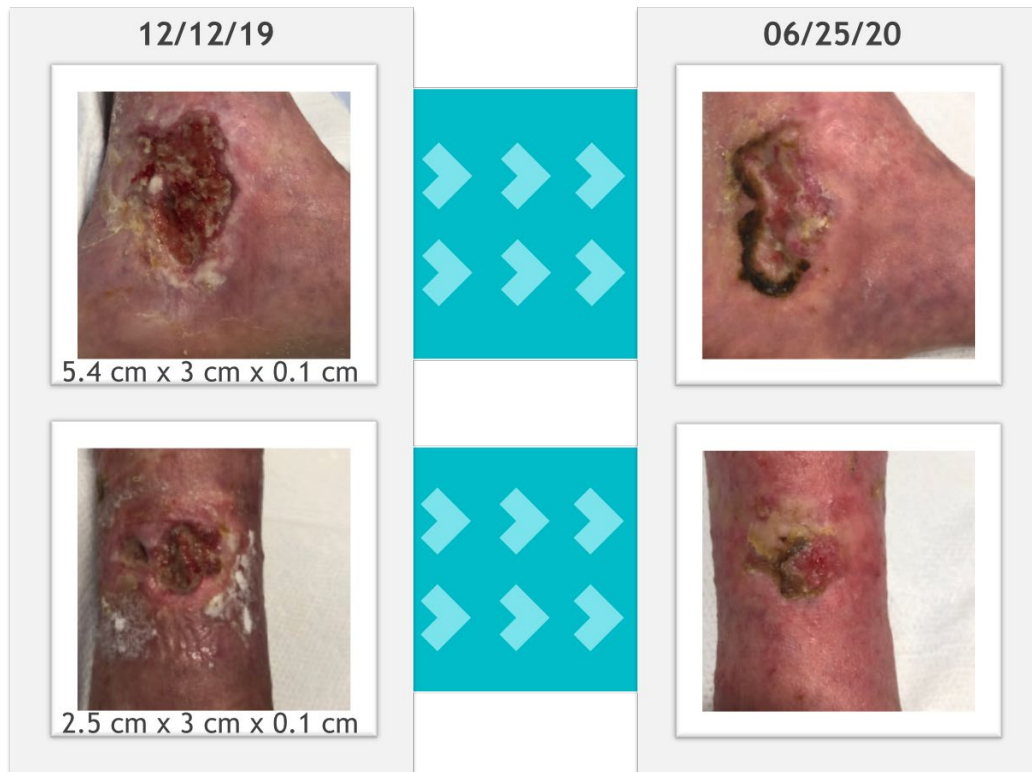
1mg/kg Q2W axatilimab  
initiated 6/12/19



9/18/19



## Additional example of observed improvement in sclerodermatous disease with ulcers

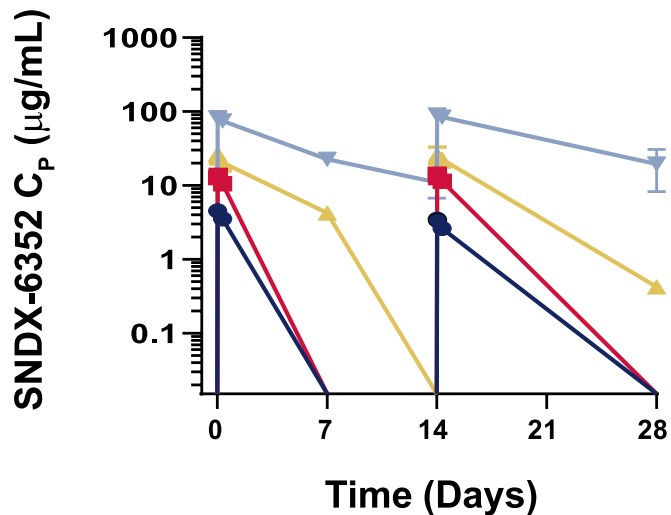


- Lower leg ulcers are particularly challenging to treat
- 3mg/kg q2wk axatilimab led to significant improvement in lower leg ulceration

# Axatilimab PK and circulating monocyte pharmacodynamic changes

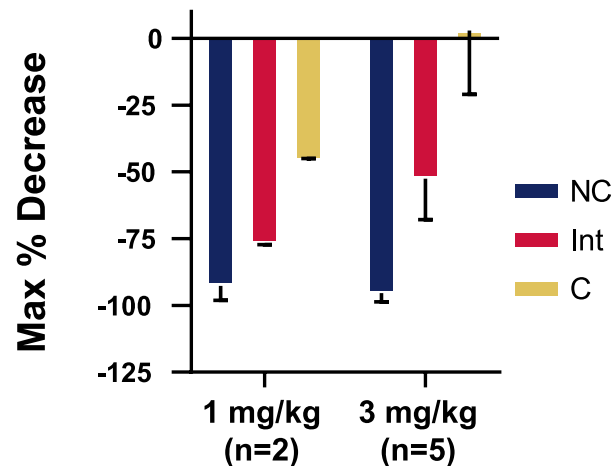


**SNDX-6352 PK**  
(q2wk)



- 0.15 mg/kg (n = 1)
- 0.5 mg/kg (n = 1)
- ▲ 1 mg/kg (n = 3)
- ▼ 3 mg/kg (n = 6)

**Maximum % decrease in circulating monocytes**



**Max % decrease in monocytes (average)**

Dose (mg/kg)	Non-classical (CD14+CD16++)	Intermediate (CD14++CD16+)	Classical (CD14++CD16-)
1	-92.72	-76.69	-45.88
3	-95.36	-52.49	2.97

Max Decrease = greatest reduction at any time in the first cycle



# Conclusions

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- Axatilimab demonstrates good tolerability with clinical activity demonstrated by a 57% (n=8) response rate in a heavily pre-treated patient population
- Low rate of infections reported with no viral reactivations
- Ongoing development of axatilimab will include a Phase 2 study (AGAVE-201) planned for enrollment in 2021. This will be a randomized, multicenter study to evaluate the efficacy, safety and tolerability of Axatilimab at 3 different doses in patients with recurrent or refractory active cGVHD who have received at least 2 lines of systemic therapy





# Acknowledgements

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- Bruce Blazar and Geoffrey Hill
- All the investigators that participated and worked on this study

**Patients and their Families**

