

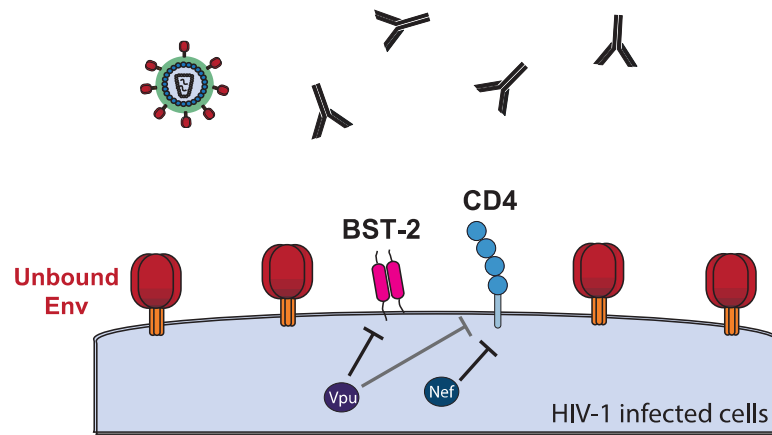
# Temsavir blocks HIV-1 soluble gp120-induced immunomodulatory activities

Andrés Finzi



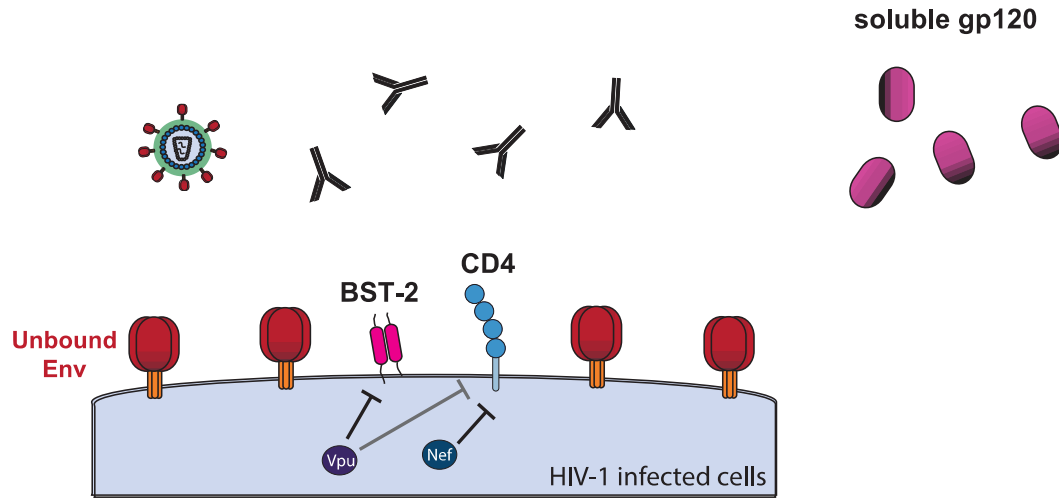
I received funding from ViiV Healthcare

# Shed gp120 sensitizes uninfected bystander cells to CD4i Abs-mediated ADCC



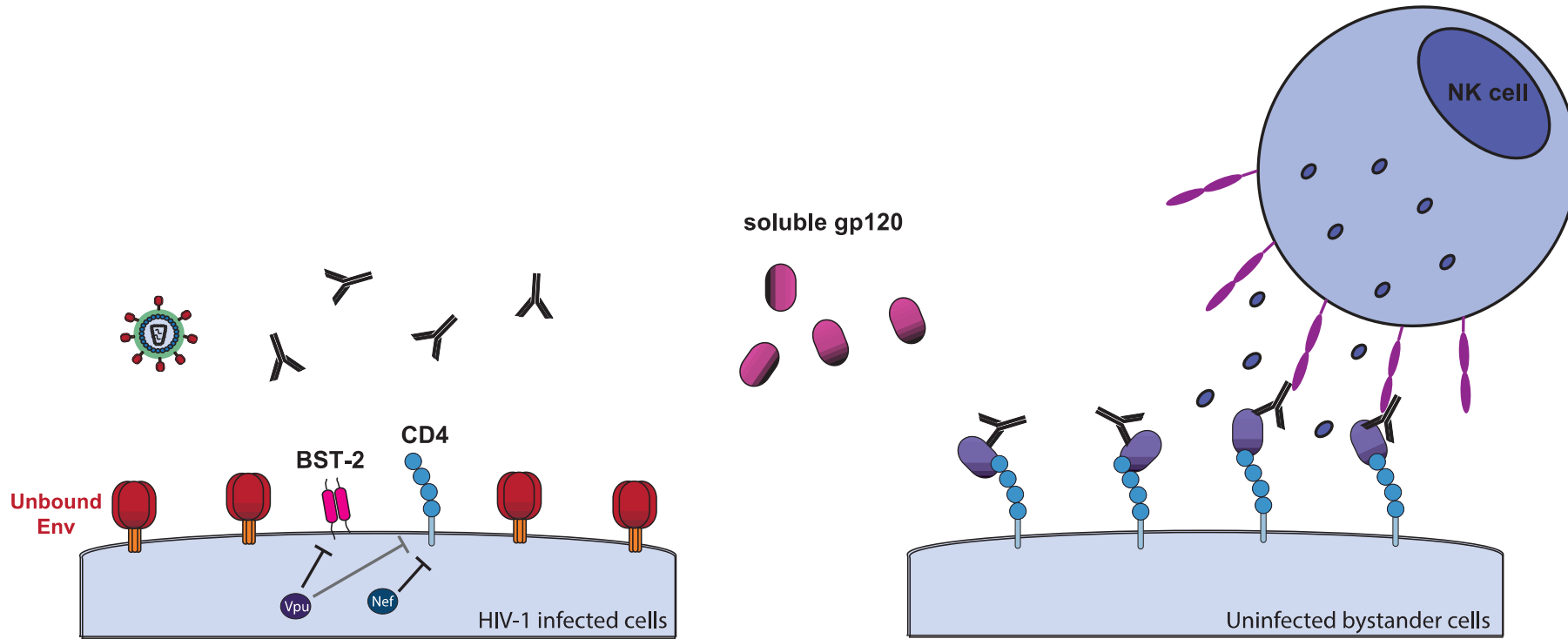
Veillette *et al.*, JVi 2014, 2015

# Shed gp120 sensitizes uninfected bystander cells to CD4i Abs-mediated ADCC



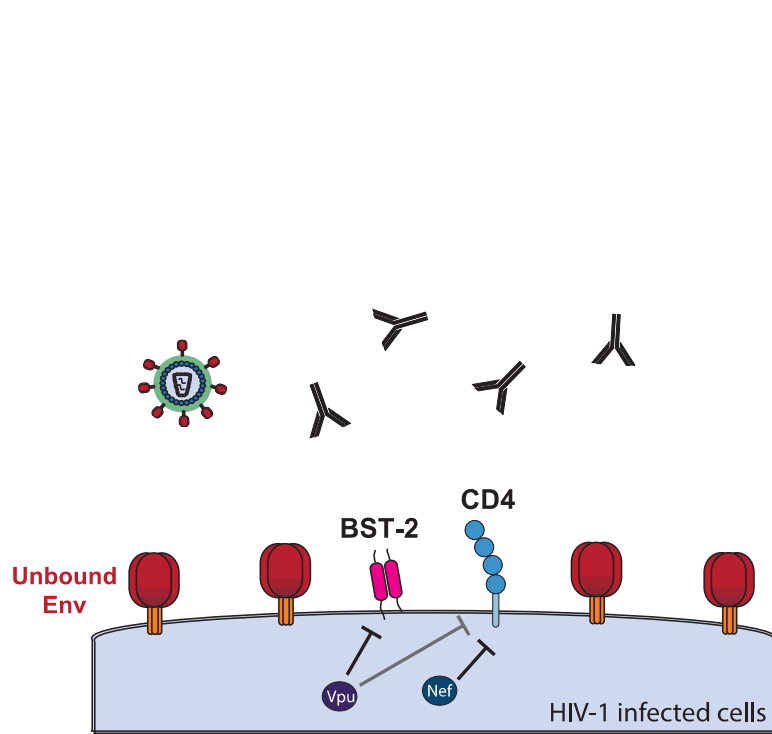
Veillette *et al.*, JVi 2014, 2015

# Shed gp120 sensitizes uninfected bystander cells to CD4i Abs-mediated ADCC

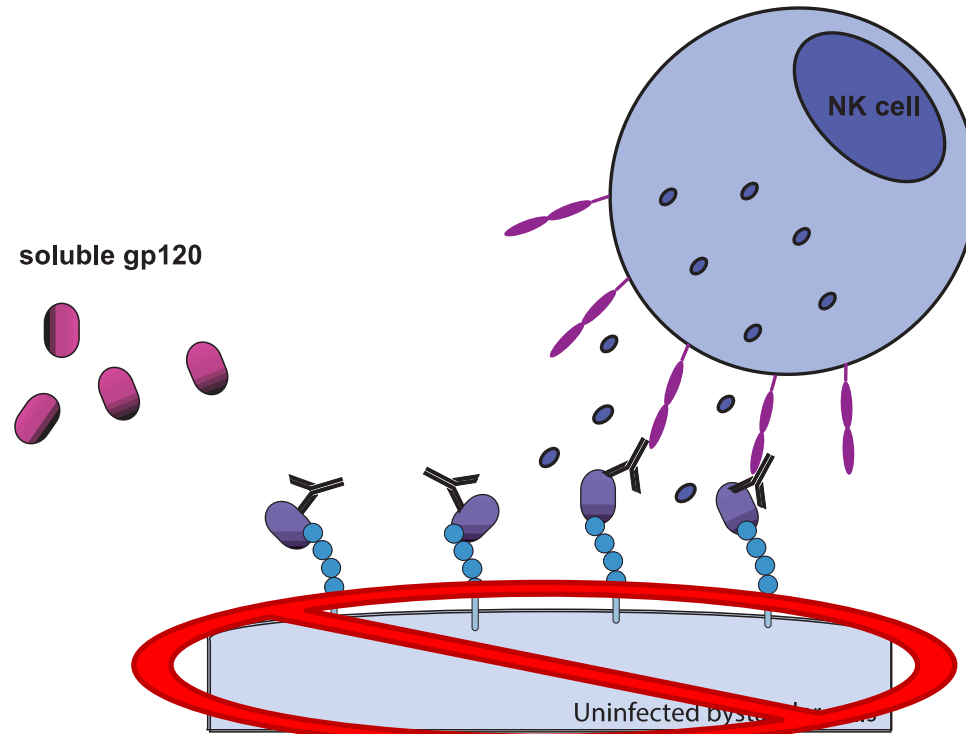


Veillette *et al.*, JVi 2014, 2015

# Shed gp120 sensitizes uninfected bystander cells to CD4i Abs-mediated ADCC

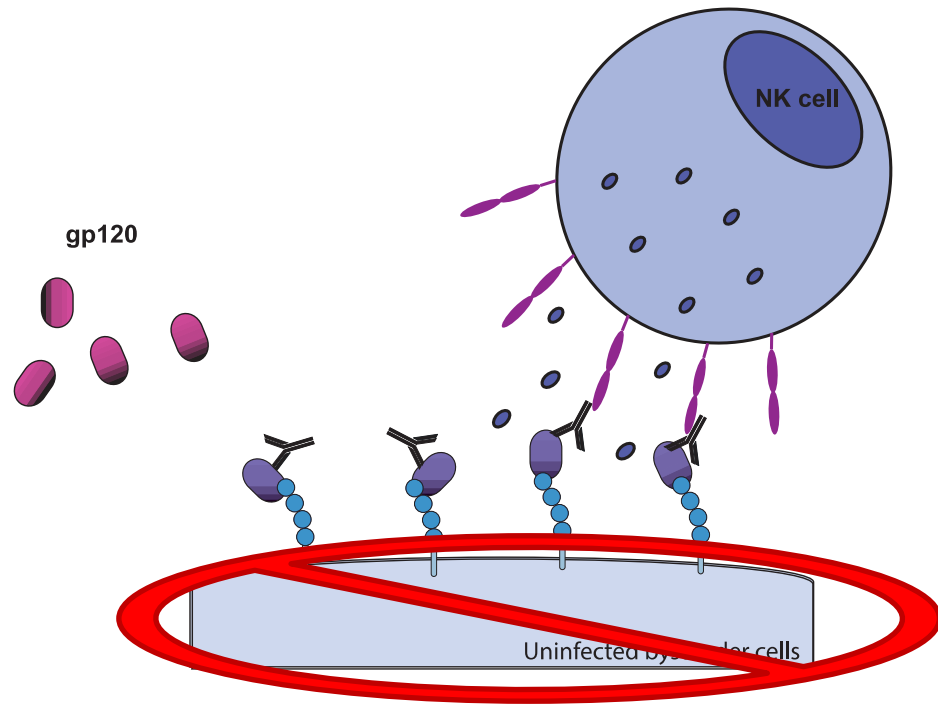


Veillette *et al.*, JVi 2014, 2015

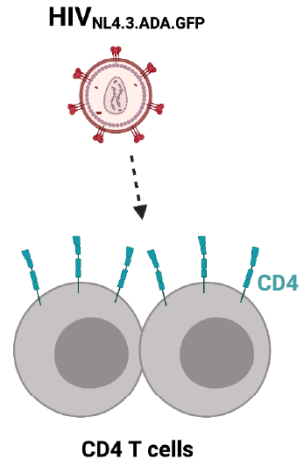


Richard *et al.*, EBioMedicine 2016

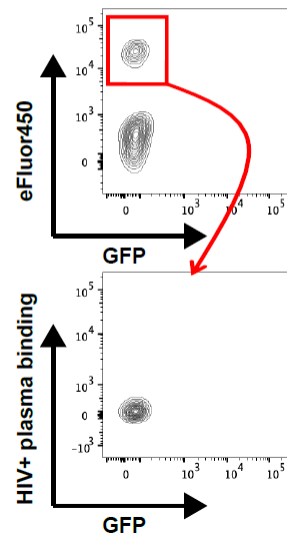
# TMR protects bystander cells from ADCC

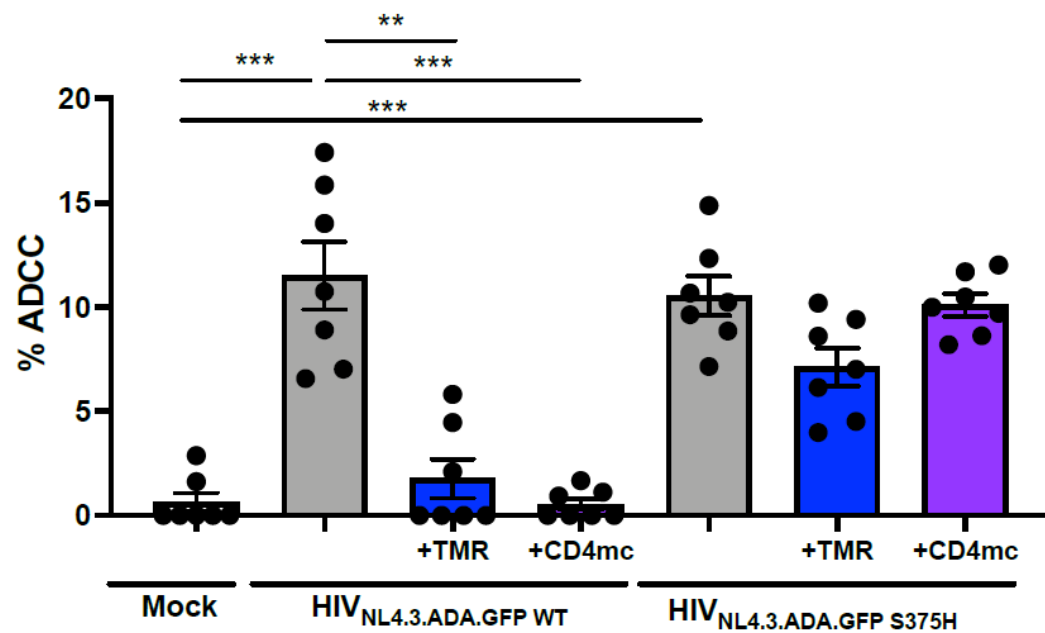
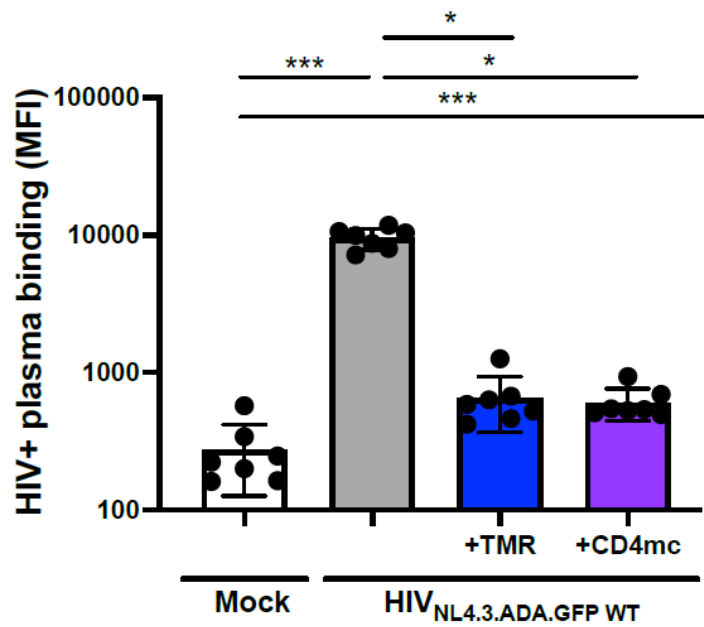






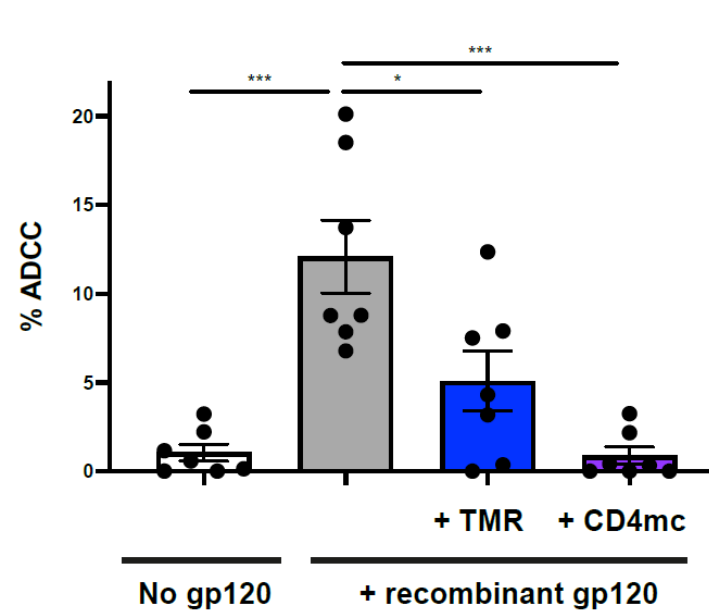
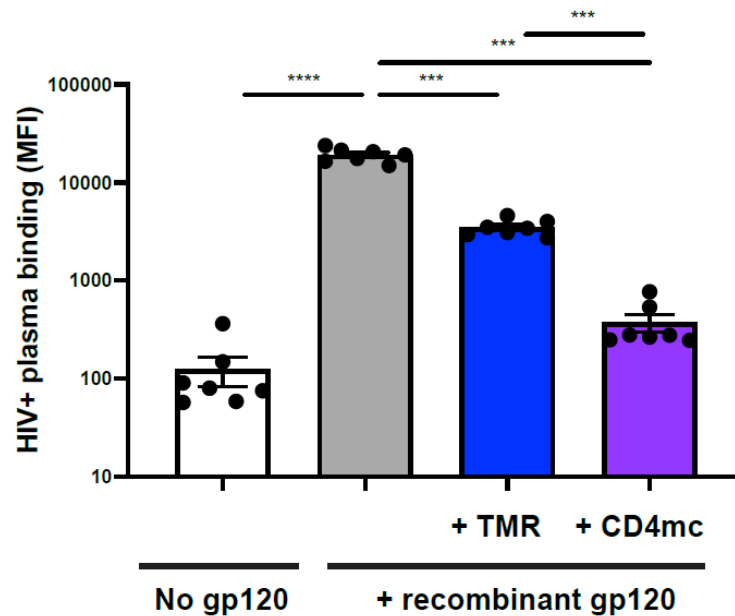
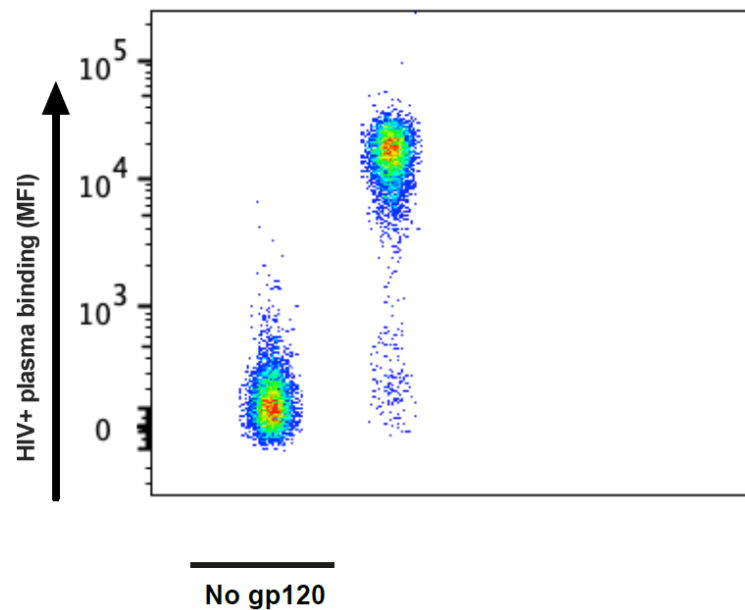
**Co-culture with  
Mock-infected cells**



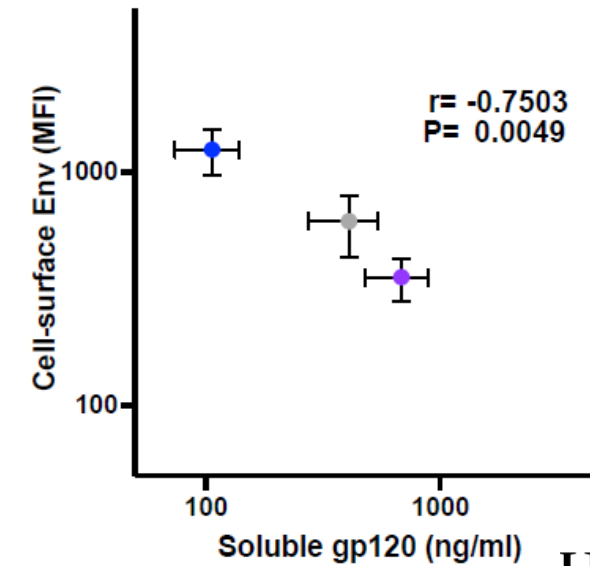
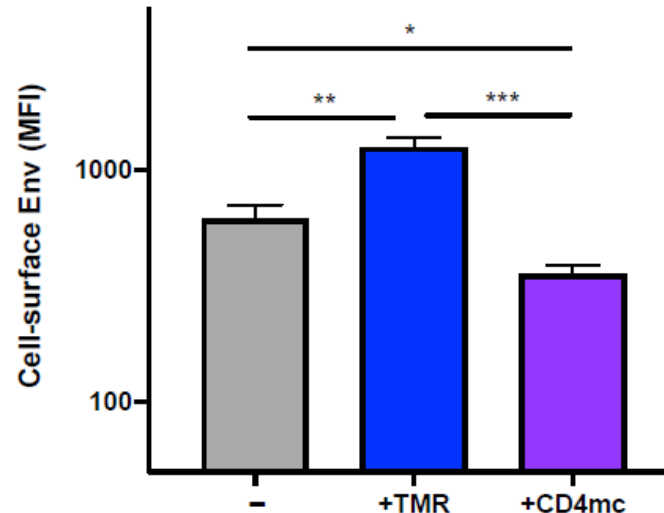
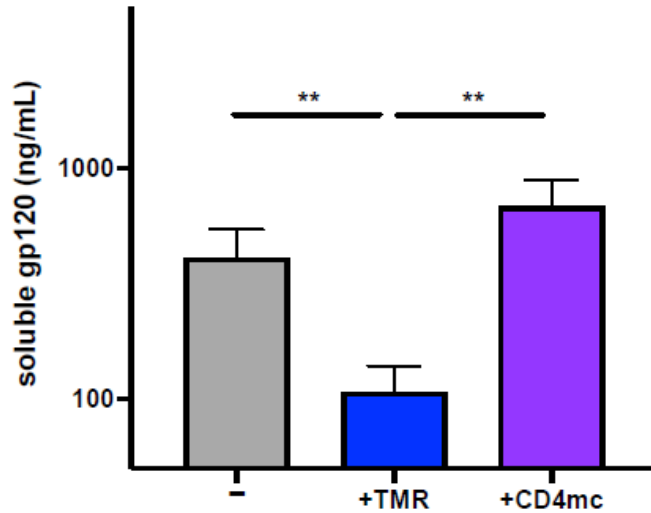
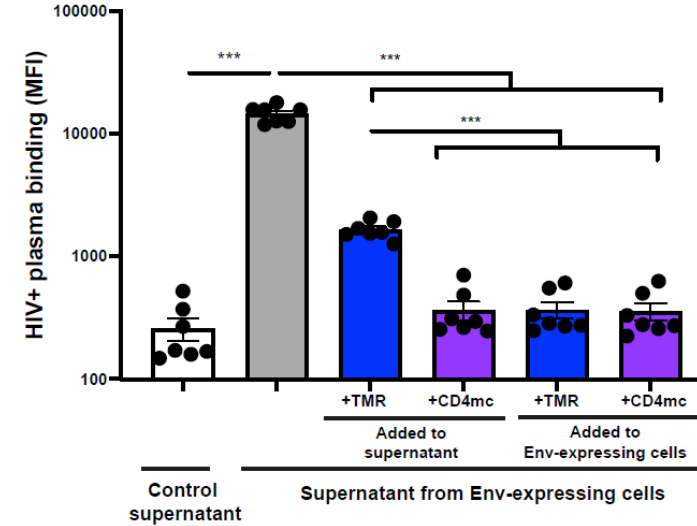
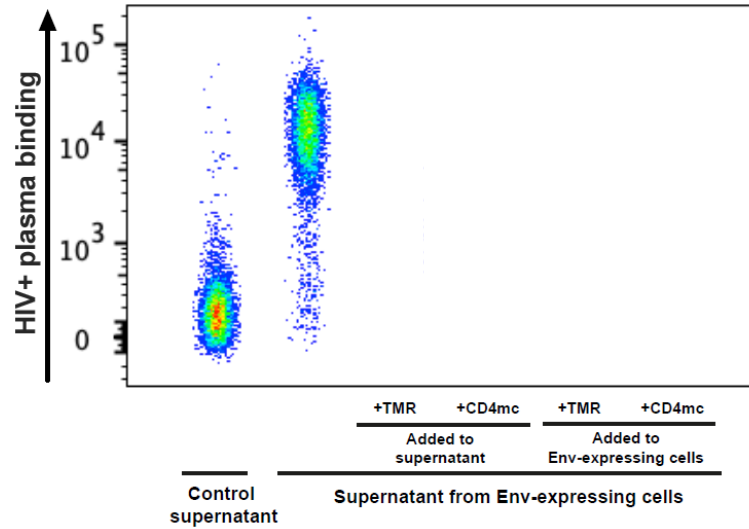




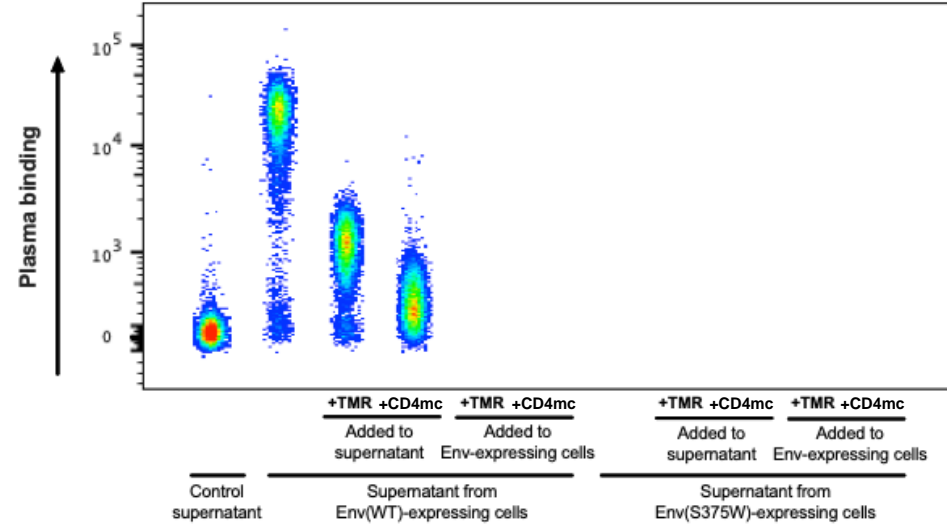
# Blocking recombinant gp120



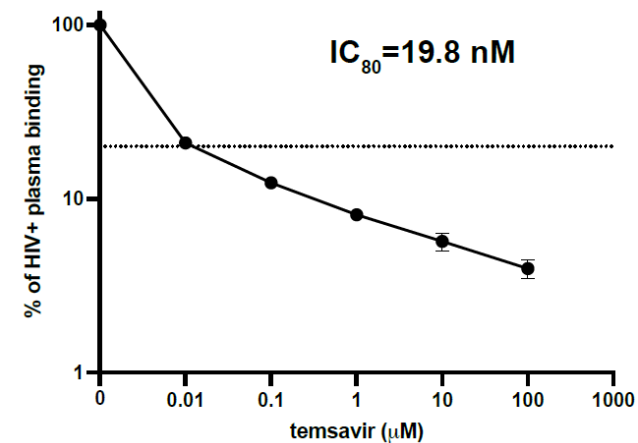
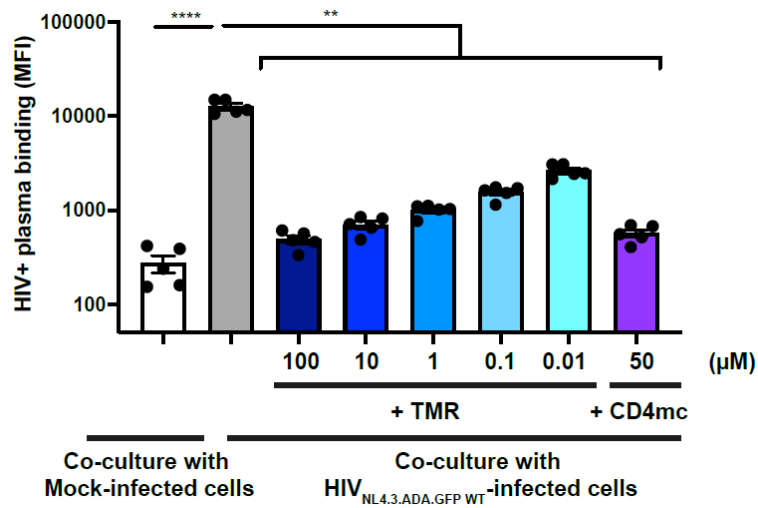
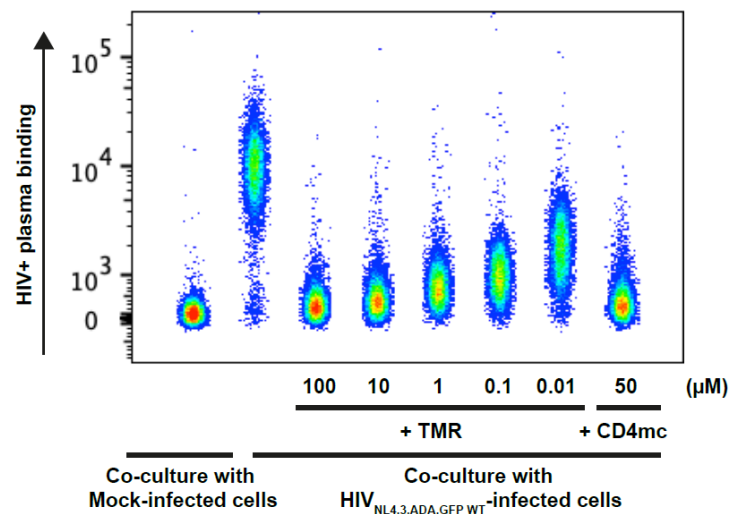
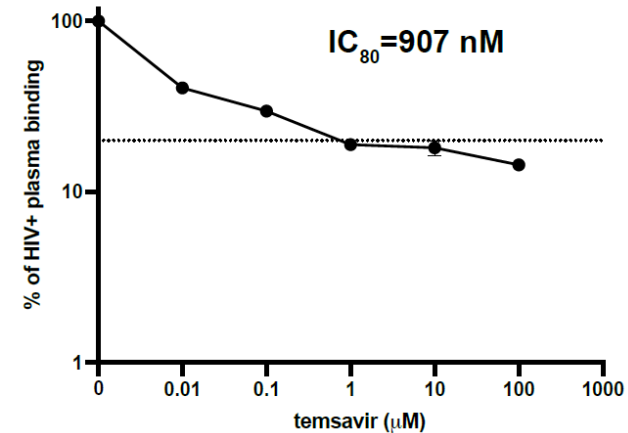
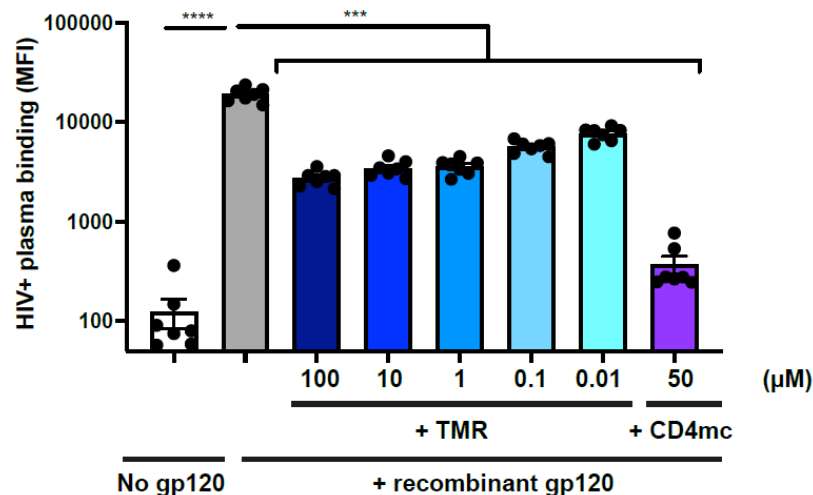
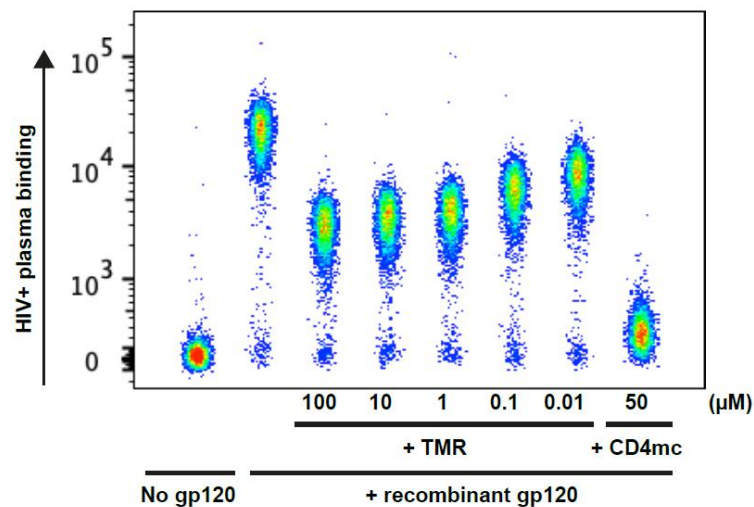
# Blocking shed gp120



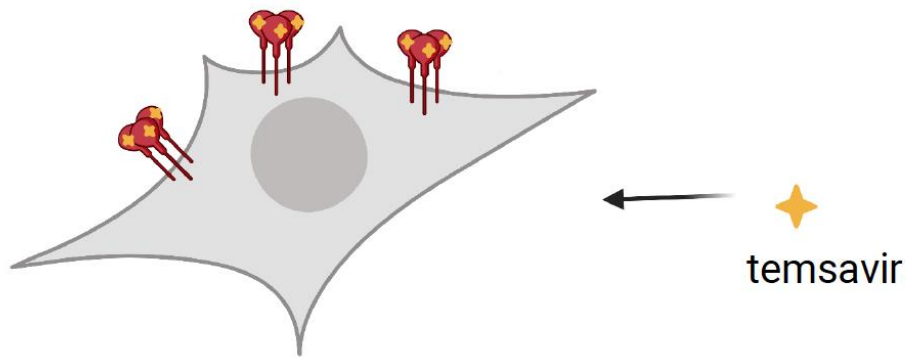
# Blocking shed gp120



# Blocking shed gp120

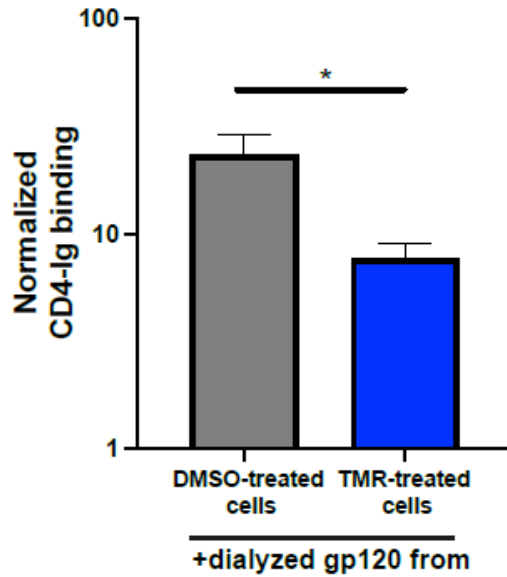


**Temsavir « detoxifies » shed gp120**

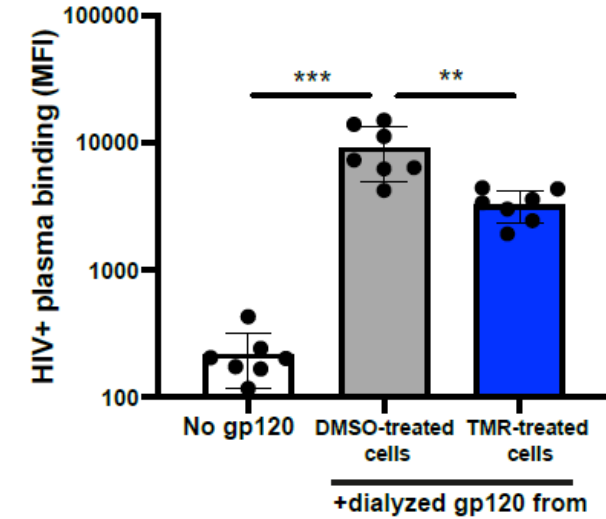
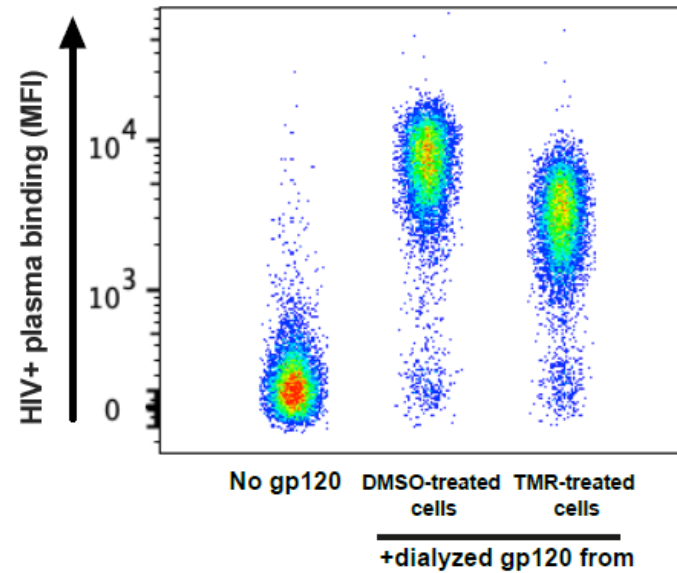


# Temsavir affects the antigenicity of shed gp120

## ELISA with CD4-Ig



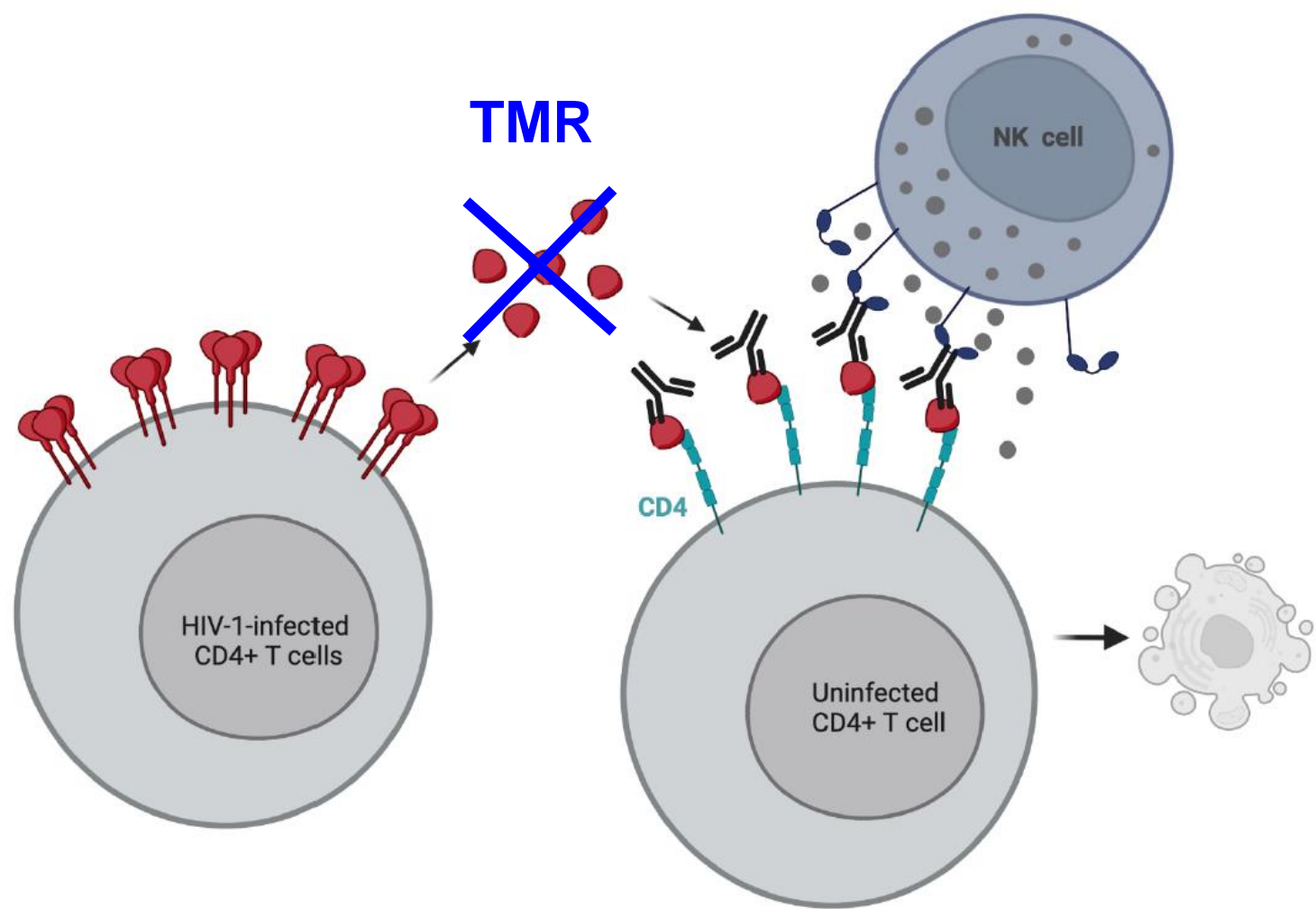
## Coating of primary CD4+ T cells





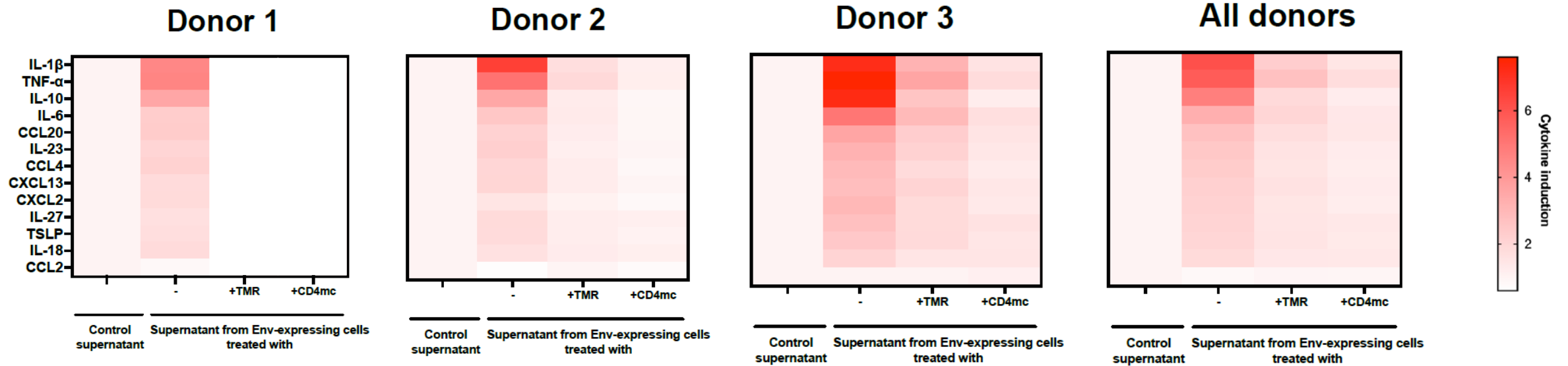
TMR  
???

TMR  
???

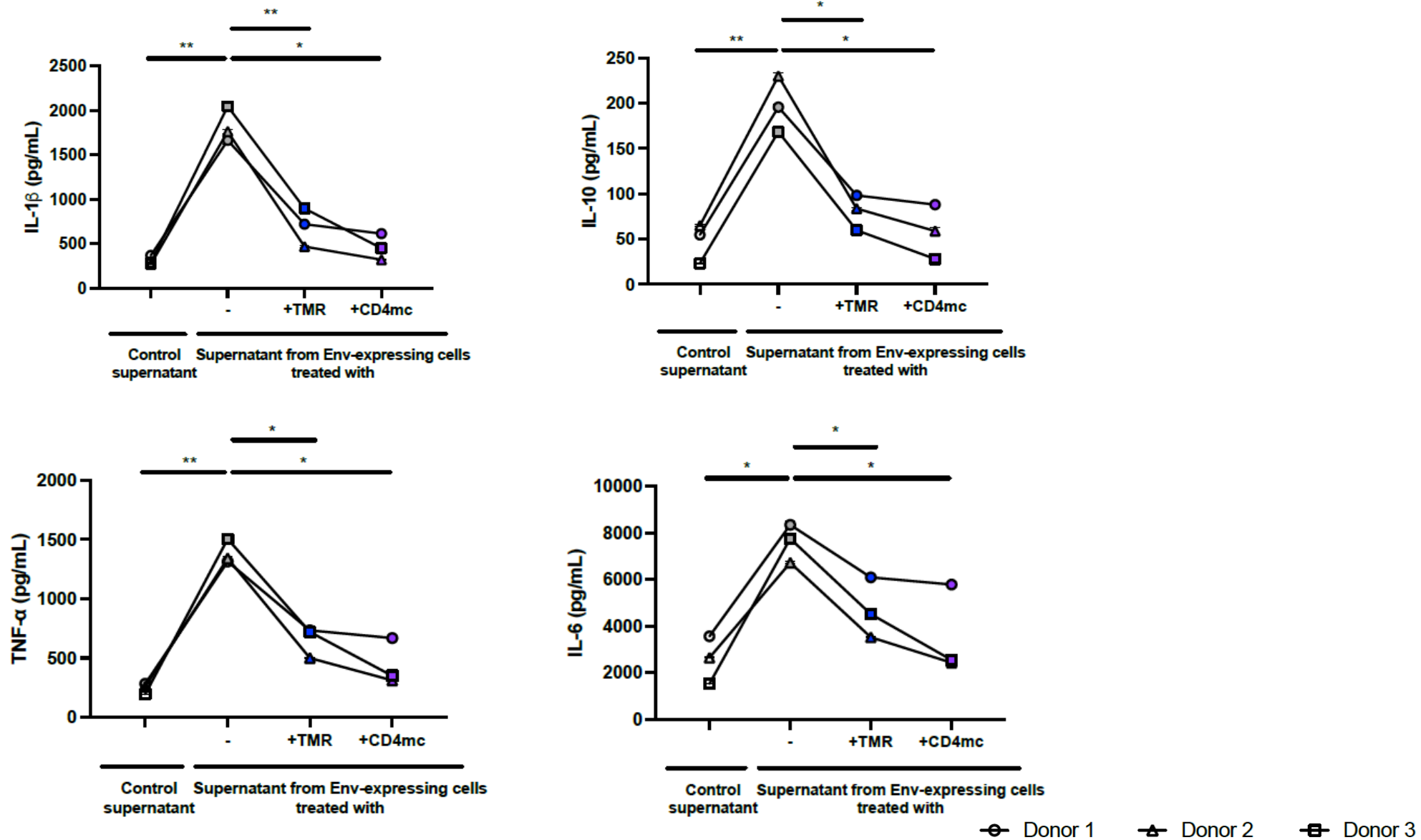


**Temsavir vs gp120-mediated cytokine burst**

# Temsavir blocks gp120-mediated cytokine burst

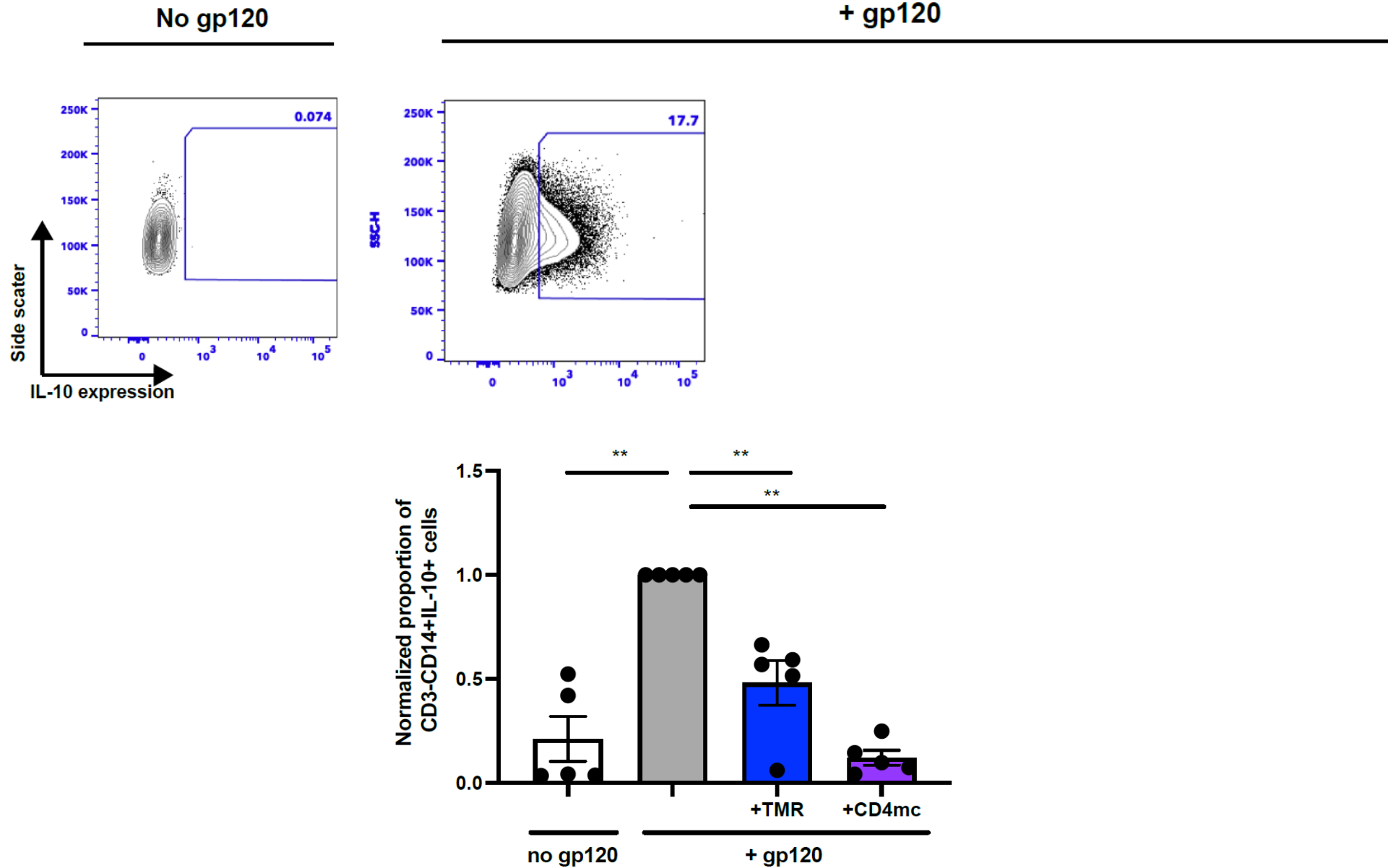


# Temsavir blocks gp120-mediated cytokine burst

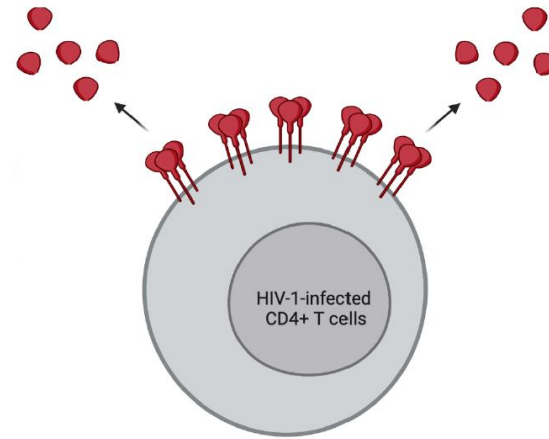


○ Donor 1    △ Donor 2    □ Donor 3

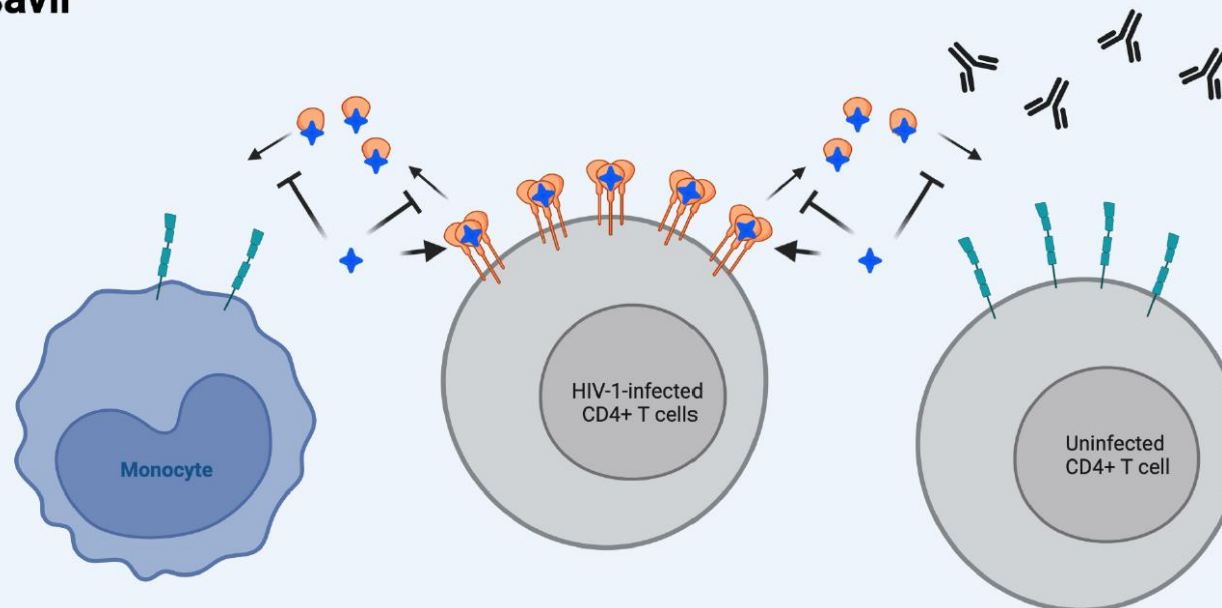
# Temsavir blocks gp120-mediated induction of IL-10 by monocytes



# CONCLUSIONS



**+ temsavir**



# Acknowledgments

## Finzi Lab

Catherine Bourassa  
Gabrielle Gendron-Lepage  
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## FRSQ SIDA-MI network

Mario Legault

## ViiV Healthcare

Andrew Clark



**Participants!**



Canada Research  
Chairs

Chaires de recherche  
du Canada

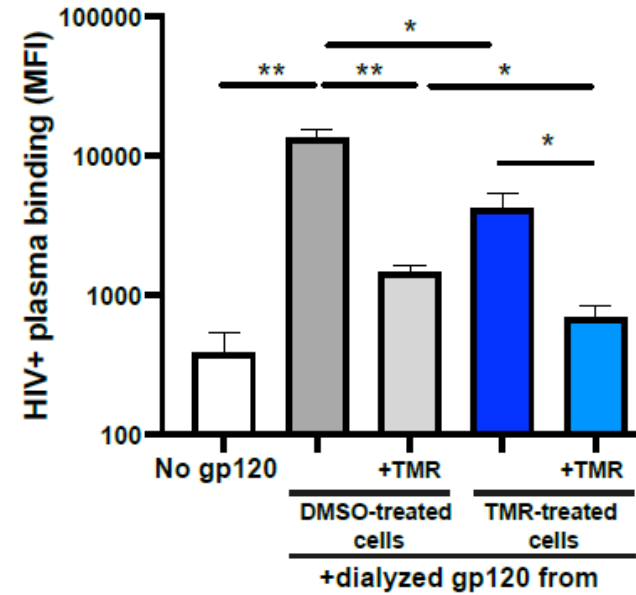
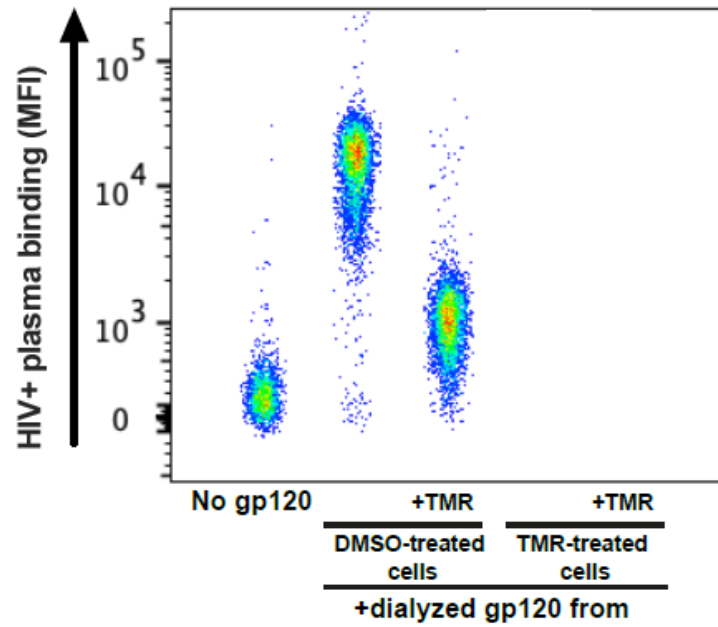


Fonds de recherche  
Santé





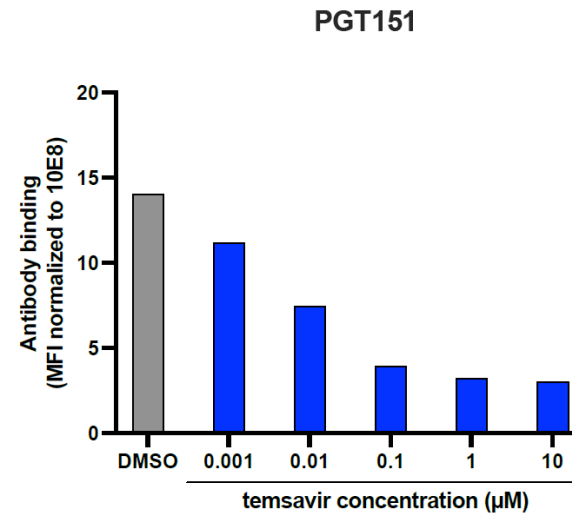
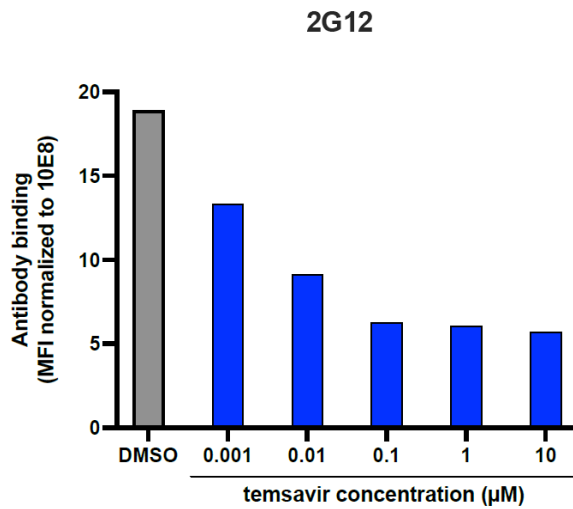
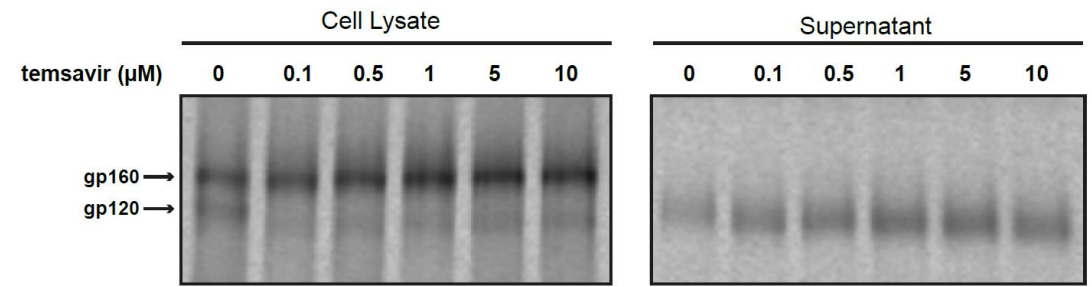
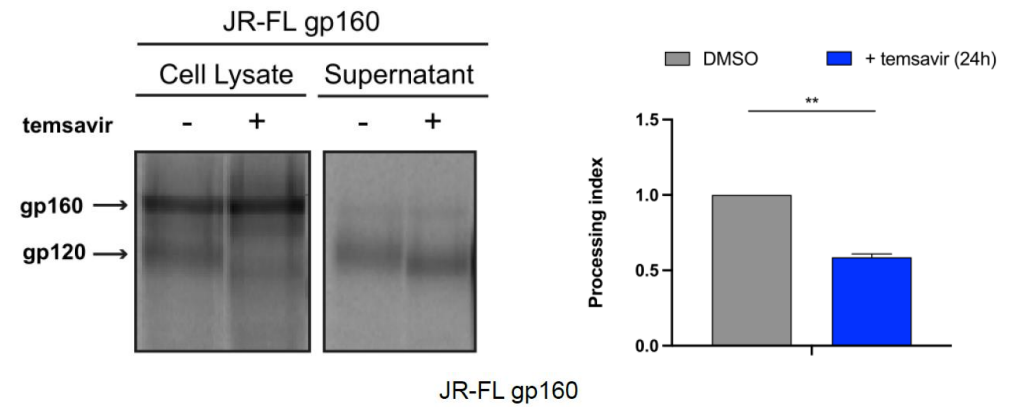
# Temsavir affects the antigenicity of shed gp120





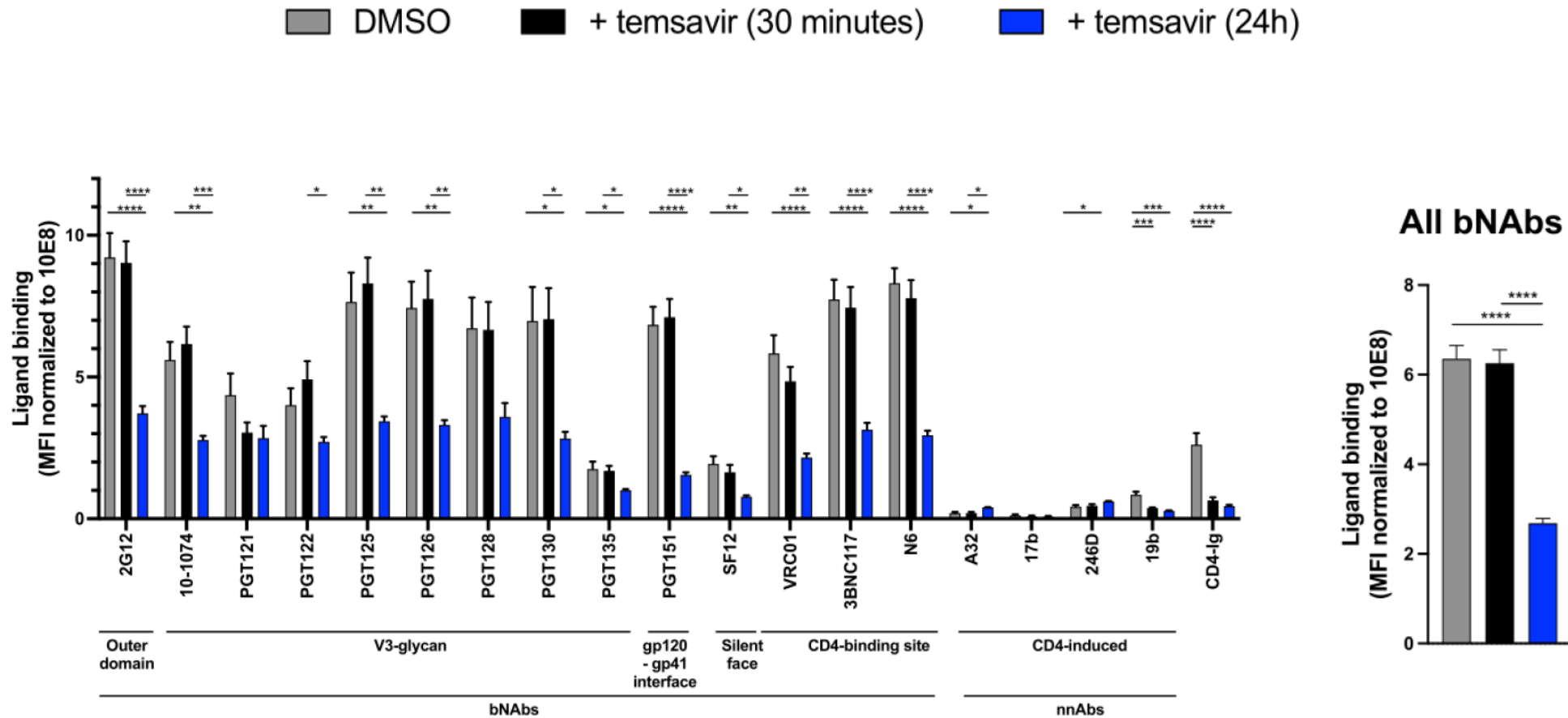
# Temsavir Treatment of HIV-1-Infected Cells Decreases Envelope Glycoprotein Recognition by Broadly Neutralizing Antibodies

Marianne Boutin,<sup>a,b</sup> Dani Vézina,<sup>a</sup> Shilei Ding,<sup>a</sup> Jérémie Prévost,<sup>a,b</sup> Annemarie Laumaea,<sup>a,b</sup> Lorie Marchitto,<sup>a,b</sup> Sai Priya Anand,<sup>c</sup> Halima Medjahed,<sup>a</sup> Gabrielle Gendron-Lepage,<sup>a</sup> Catherine Bourassa,<sup>a</sup> Guillaume Goyette,<sup>a</sup> Andrew Clark,<sup>d</sup> Jonathan Richard,<sup>a,b</sup> Andrés Finzi<sup>a,b,c</sup>

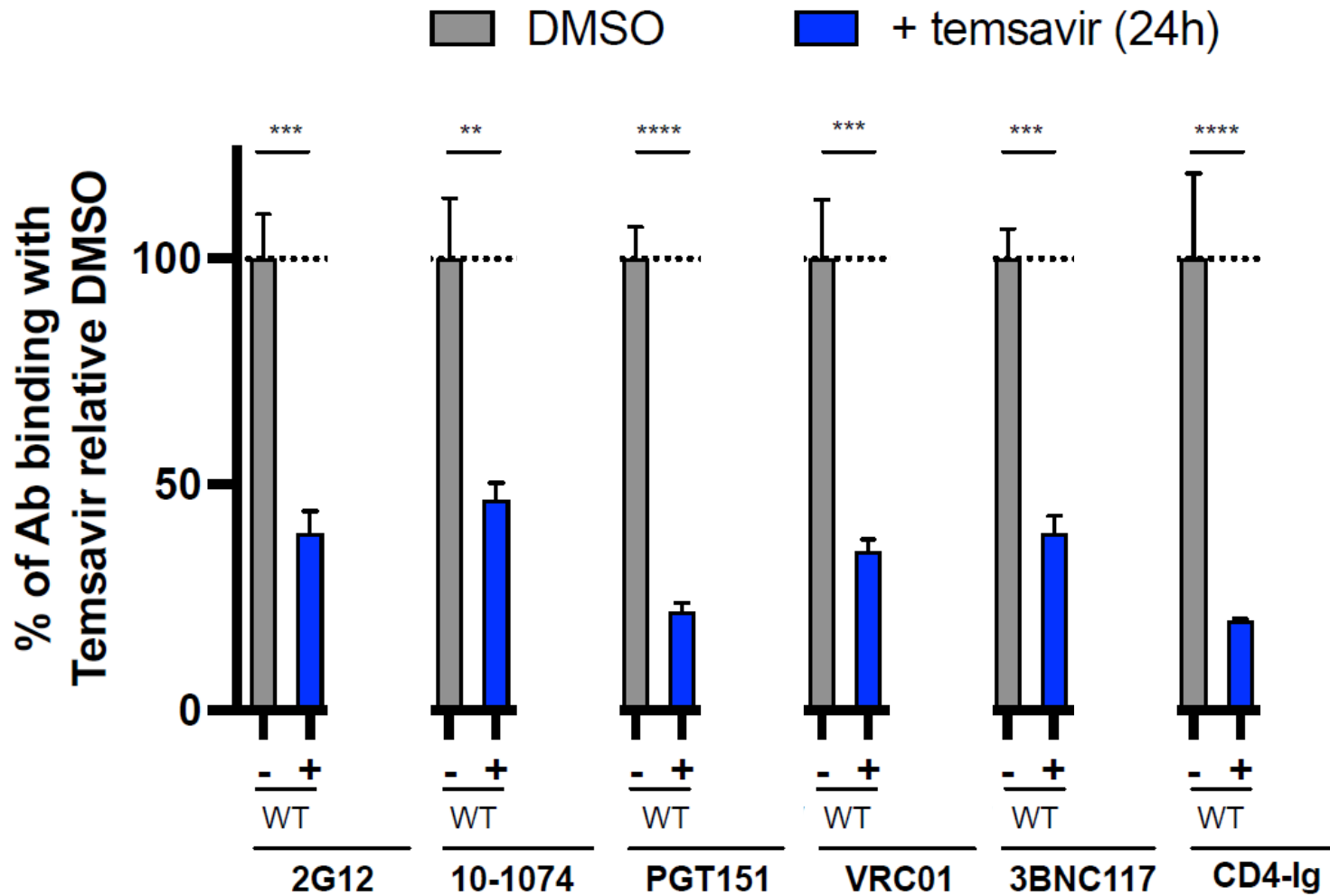


■ DMSO    ■ + temsavir (24h)

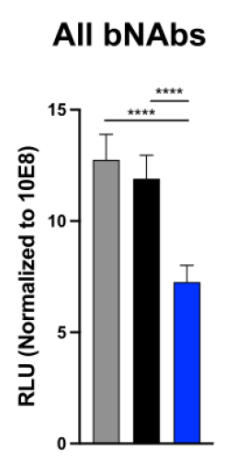
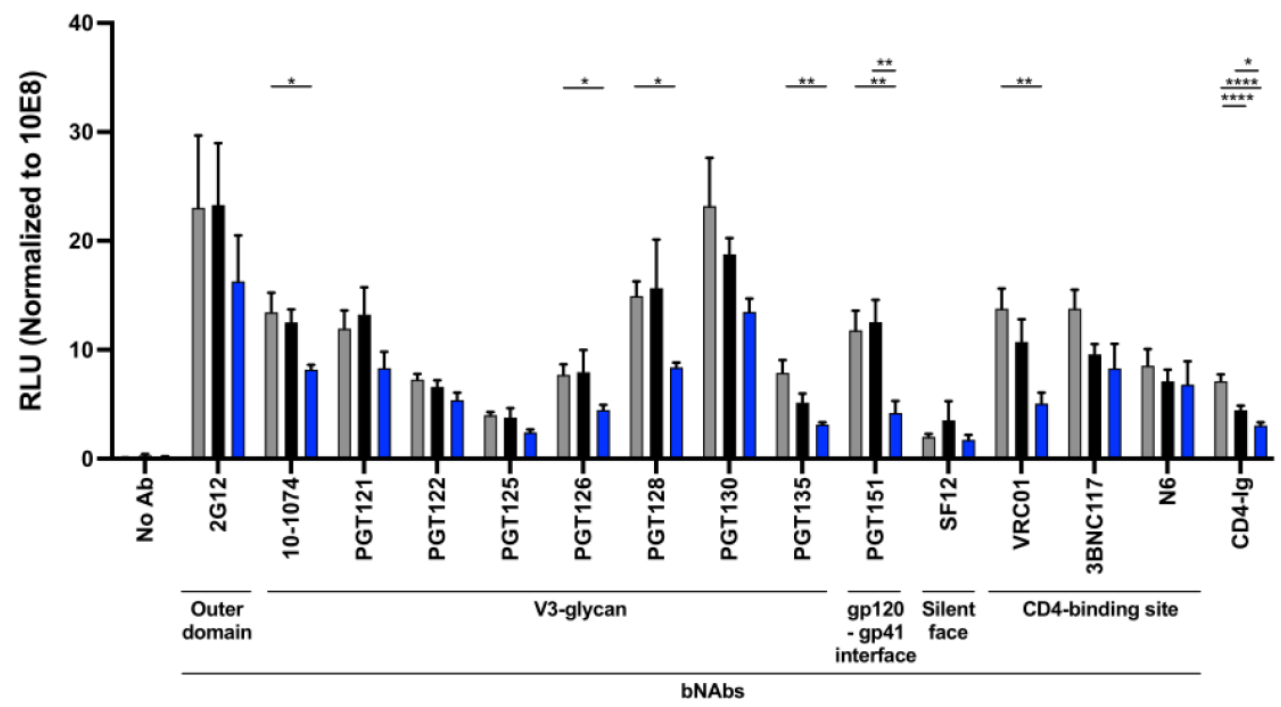
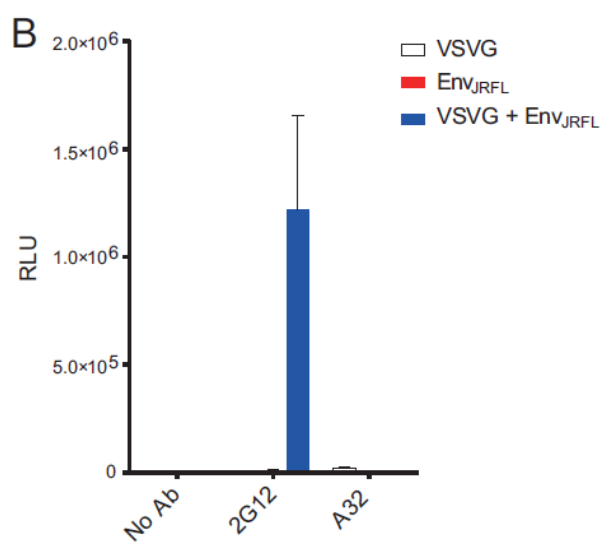
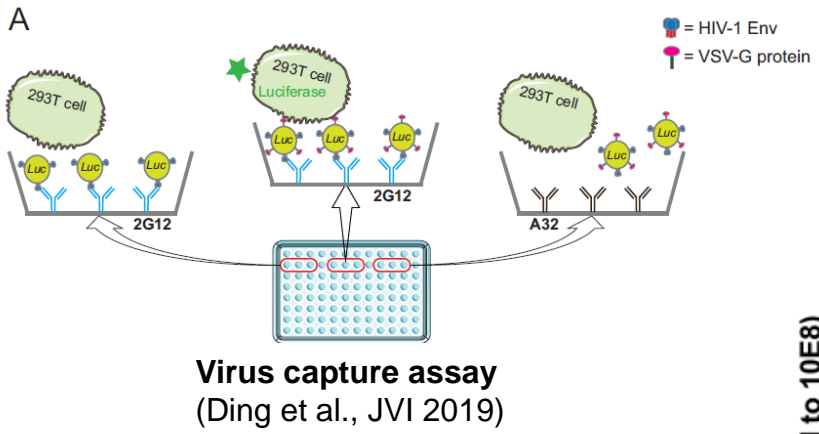
# Impact of temsavir treatment on Env conformation at the cell surface



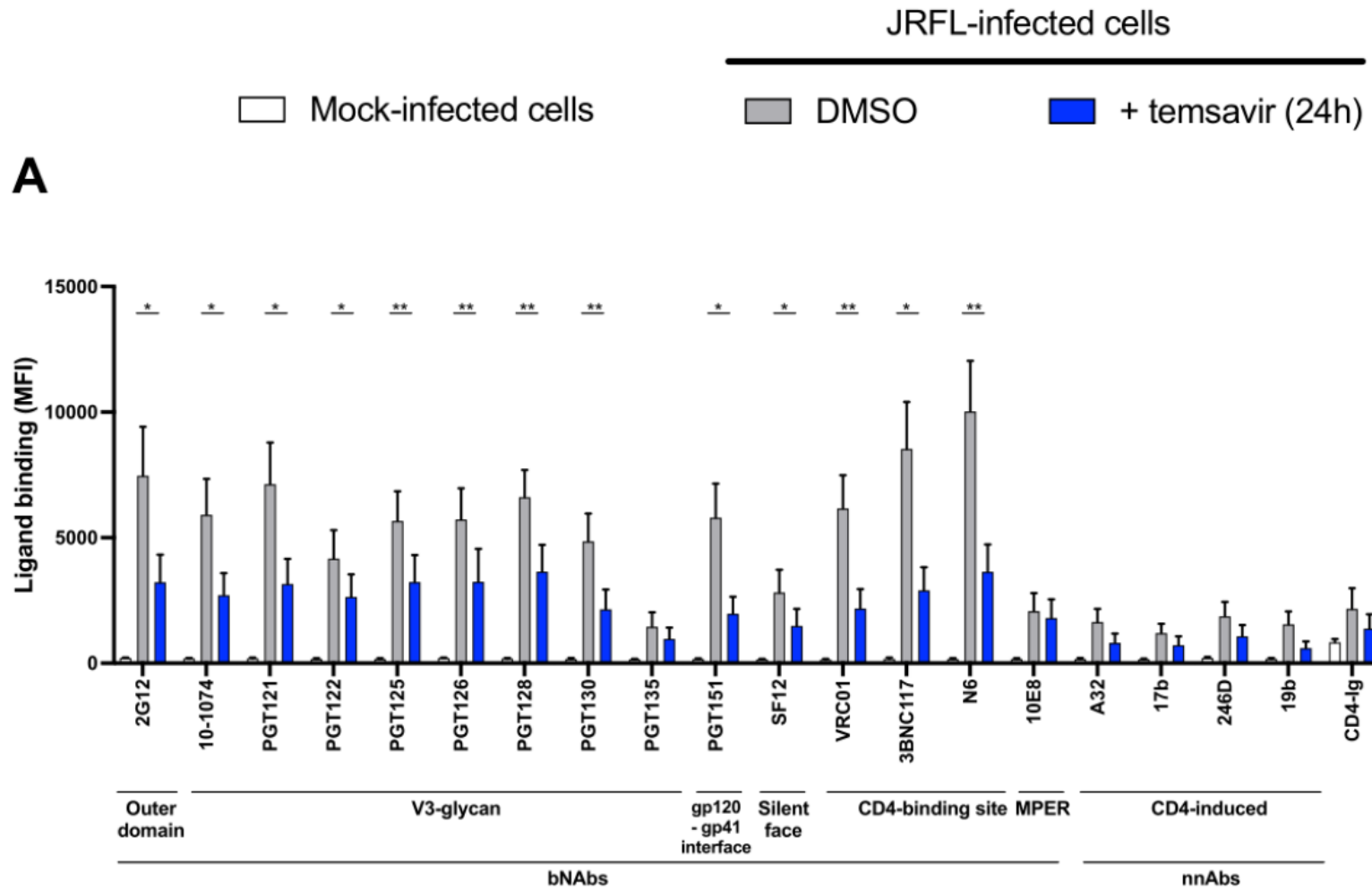
# Impact of temsavir treatment on Env conformation at the cell surface



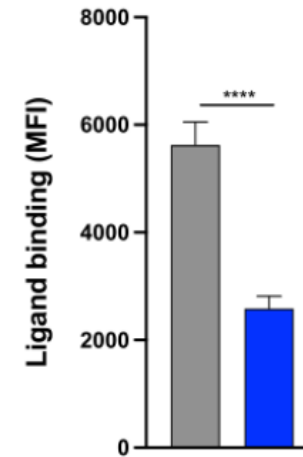
# Impact of temsavir treatment on Env conformation at the surface of viral particles



# Temsavir modulates Env conformation at the surface of infected primary CD4+ T cells



**B** All bNAbs



# bNAbs-mediated ADCC is significantly decreased by temsavir

