The Conserved Elements (CE) approach to HIV vaccine design

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Take home messages for the community

• HIV-infected individuals (SIV-infected macaques) respond to some features of the virus before and more strongly than others (immunodominance)

• If the response is to a critical component of the virus, better virologic control results
  – This helps explain why people with certain HLA types have persistently lower viral loads

• Responses to conserved elements are typically subdominant
  – Most people mount immundominant responses to variable components of the virus
  – Associated with higher viral loads, faster disease progression

• A vaccine composed exclusively of critical components of the virion can focus responses onto these critical elements
  – Subsequent exposure to the full-length protein does not subvert the CE-imposed immunodominance
  – CE responses may be more effective at destroying infected cells