- **Question:** Does RhoGAM produce higher triglyceride levels in $Rh(D)^-$ patients than in $Rh(D)^+$ patients?
- **Data:** Triglyceride level for 13 $Rh(D)^+$ patients, X, and 22 $Rh(D)^-$ patients, Y, inoculated with RhoGAM.

$Rh(D)^+$, X	Rank	$Rh(D)^-$, Y	Rank
121	2	103	1
127	3	142	4
157	5	176	7
175	6	181	10
177	8	184	11
178	9	198	14
189	12	205	16
193	13	212	18
202	15	226	19
209	17	238	20
242	21	247	22
271	25	251	23
379	33	264	24
		279	26
		283	27
		288	28
		288	29
		301	30
		335	31
		371	32
		380	34
		424	35
	W_X=169		W_Y=461

- **Test of Hypothesis:**

$H : \eta_Y = \eta_X \quad U_X = W_X - \frac{m(m+1)}{2} = 169 - \frac{13(14)}{2} = 169 - 91 = 78$

$A : \eta_Y > \eta_X \quad U_Y = W_Y - \frac{n(n+1)}{2} = 461 - \frac{22(23)}{2} = 461 - 253 = 208$

mean of $U_Y = \frac{mn}{2} = \frac{13(22)}{2} = 143$

std dev of $U_Y = \sqrt{\frac{mn(m+n+1)}{12}} = \sqrt{\frac{13(22)(13+22+1)}{12}} = \sqrt{858} = 29.29$

P-value $\doteq P\left(Z \geq \frac{U_Y - 0.5 - \frac{mn}{2}}{\sqrt{\frac{mn(m+n+1)}{12}}}\right) = P\left(Z \geq \frac{208-0.5-143}{29.29}\right) = P(Z \geq 2.20) = 0.0139$

Since the P-value is small (less than 0.05), Reject H and conclude that triglyceride levels for $Rh(D)^-$ patients are higher.