Setup



Without looking, select an M&M color from the bowl

The selected color will be the body's label for its own cells, the "self"

Record this color on your log sheet and remember it during all the three checkpoints!

Checkpoint 1

Do immune cells develop autoimmunity before they leave their organs?



Without looking, take a random M&M color from the bowl

Match with "self" color: Cell is autoreactive

Does autoreactive cell escape the organ?

Roll a die

6

Yes

Autoimmune disease! Go to the respective area in your classroom

1,2,3,4,5

No

No Autoimmune disease! Go to Checkpoint 2

No match with "self" color: Cell is not autoreactive

No Autoimmune disease! Go to Checkpoint 2

Record your results on your log sheet!

Checkpoint 2

Do immune cells stop an autoimmune response during an infection?



Without looking, take a random M&M color from the bowl

Match with "self" color: Autoimmunity occurs

No match with "self" color: Autoimmunity does not occur

No Autoimmune disease!
Go to Checkpoint 3

Can immune system stop the resulting autoimmunity?

Roll a die

Predisposed: 2,3,4,5,6

6

No

Autoimmune disease!
Go to the respective area in your classroom

1,2,3,4,5

Yes

No Autoimmune disease!
Go to Checkpoint 3

Predisposed: 1

Record your results on your log sheet!

Checkpoint 3

Do immune cells destroy themselves to stop the immune response after an infection?



Without looking, take a random M&M color from the bowl

Match with "self" color:
Cells do not destroy themselves

No match with "self" color:
Cells destroy themselves

Can autoimmune disease still be prevented?

No Autoimmune disease!
Go to the respective area in your classroom

Roll a die

Predisposed:
2,3,4,5,6

6

No

Autoimmune disease!
Go to the respective area in your classroom

1,2,3,4,5

Yes

No Autoimmune disease!
Go to the respective area in your classroom

Predisposed:
1

Record your results on your log sheet!