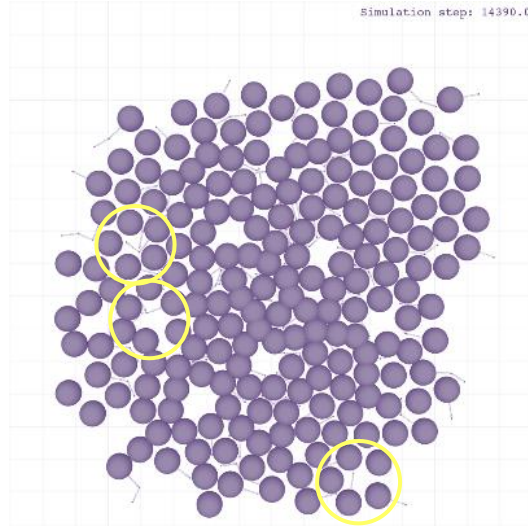


### Well-defined Homer-Wright rosettes

Marked as green circles

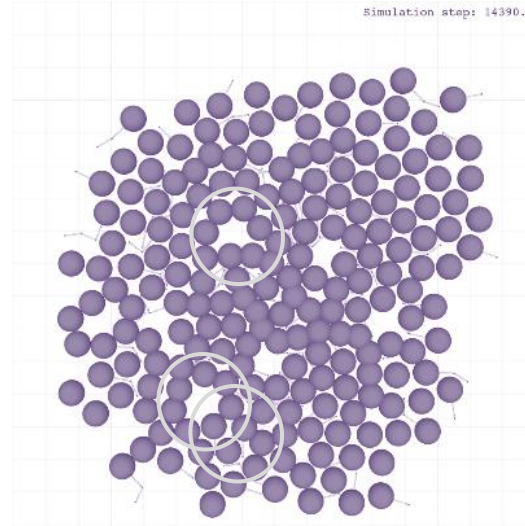
- At least one neurite inside  
and
- Circular structure  
and/or
- Contour cells attached to each other



### Poorly-defined Homer-Wright rosettes

Marked as yellow circles

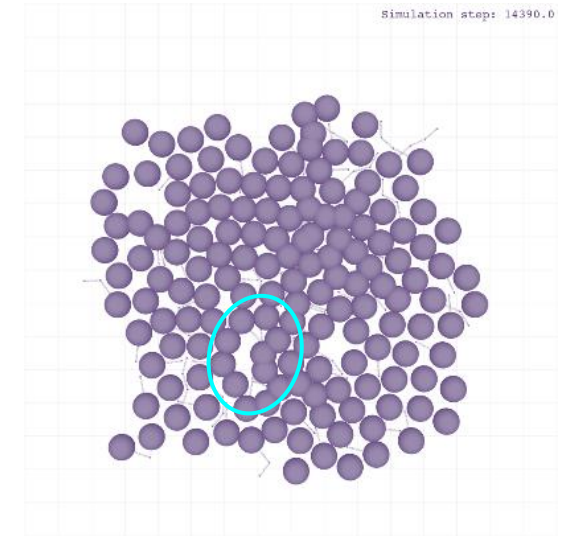
- At least one neurite inside  
and
- Compromised circular structure  
and/or
- Contour cells not attached



### True ependymal rosettes

Marked as gray circles

- No neurites inside  
and
- Circular structure  
and/or
- Contour cells attached to each other



### Neurocyticrosettes

Marked as blue ellipses

- At least one neurite inside  
and
- Large and elongated structure  
and/or
- Contour cells attached to each other

## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- Low repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 15.0

- **Neurite-cell interactions:**

- Low repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 15.0

- **Cell-cell interactions:**

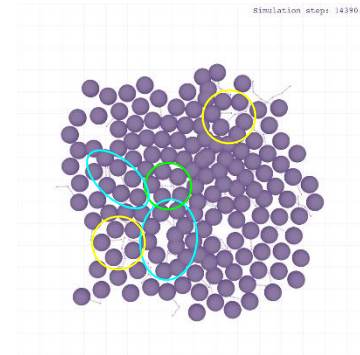
- Variable
- See row label for each case

Low cell-cell  
repulsion  
(cca=5.0, ccr=15.0)

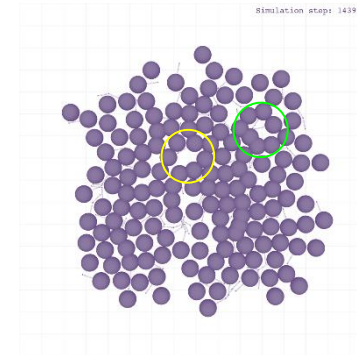
Balanced cell-cell  
adhesion/repulsion  
(cca=5.0, ccr=25.0)

High cell-cell  
repulsion  
(cca=5.0, ccr=50.0)

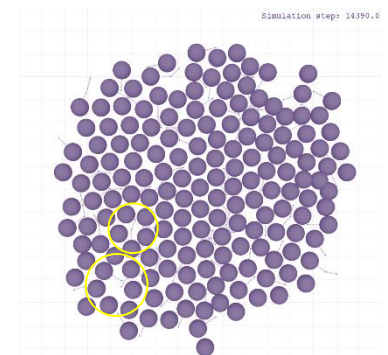
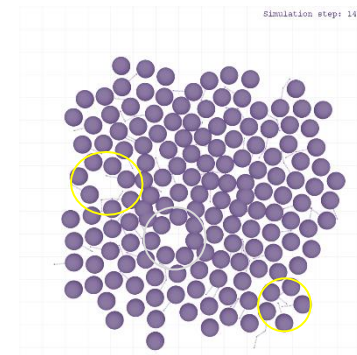
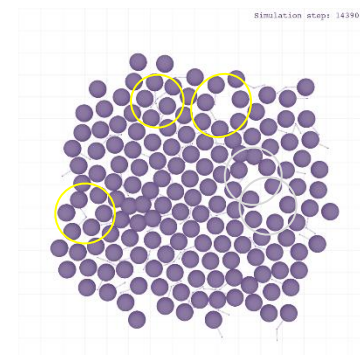
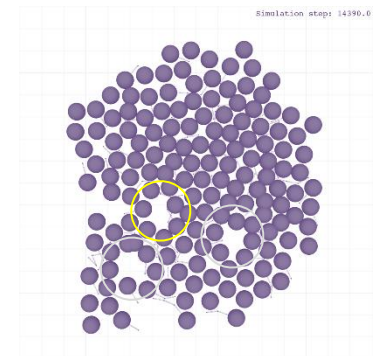
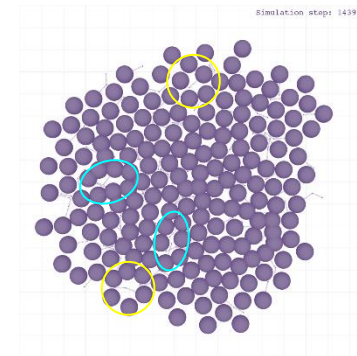
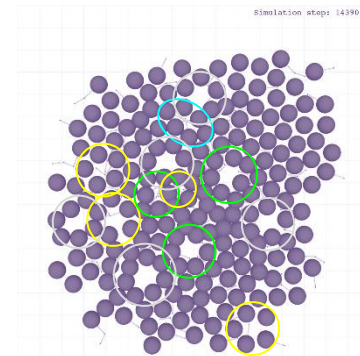
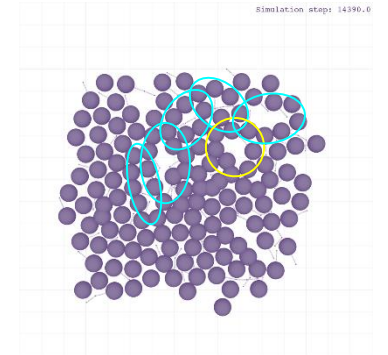
Replicate 1



Replicate 2



Replicate 3



# Rosette formation

## Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- Low repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 15.0

- **Neurite-cell interactions:**

- Balanced repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 25.0

- **Cell-cell interactions:**

- Variable
- See row label for each case

**Low cell-cell  
repulsion**  
(cca=5.0, ccr=15.0)

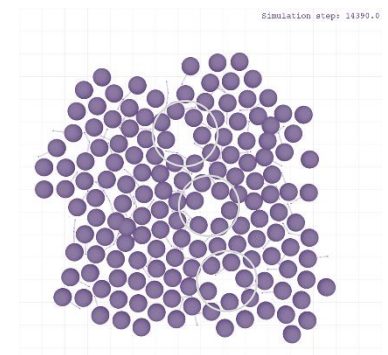
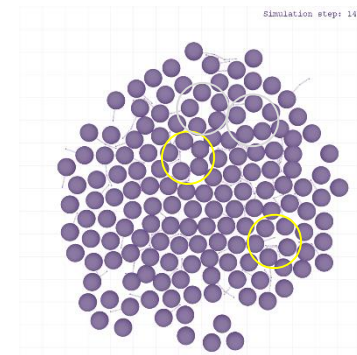
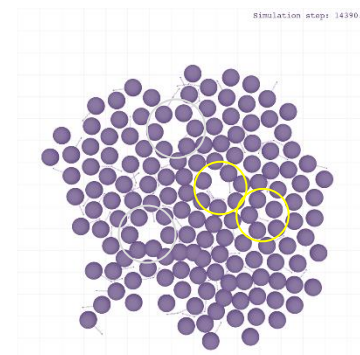
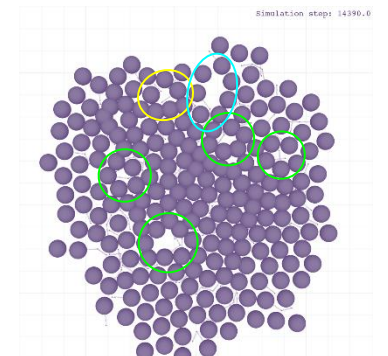
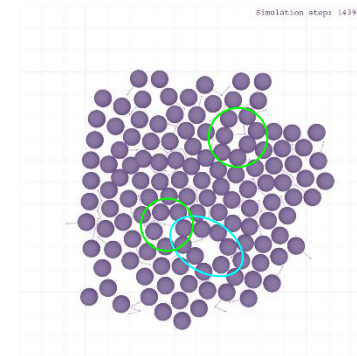
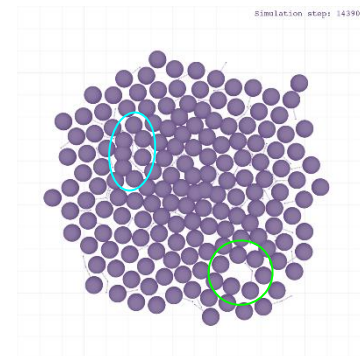
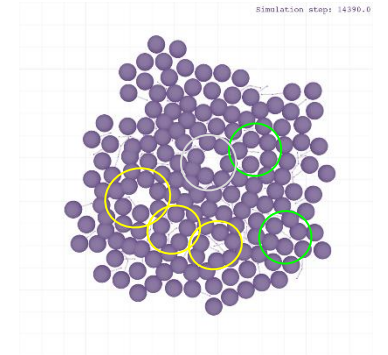
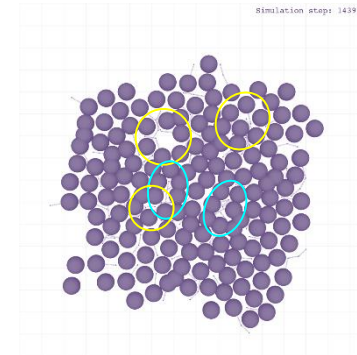
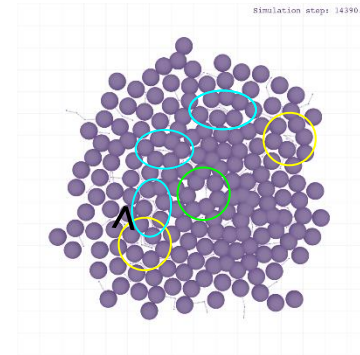
**Balanced cell-cell  
adhesion/repulsion**  
(cca=5.0, ccr=25.0)

**High cell-cell  
repulsion**  
(cca=5.0, ccr=50.0)

Replicate 1

Replicate 2

Replicate 3





## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- Low repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 15.0

- **Neurite-cell interactions:**

- High repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 50.0

- **Cell-cell interactions:**

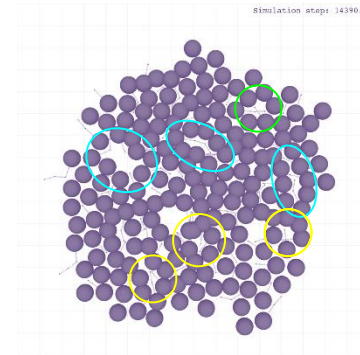
- Variable
- See row label for each case

**Low cell-cell  
repulsion**  
(cca=5.0, ccr=15.0)

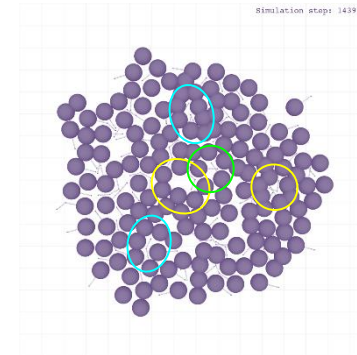
**Balanced cell-cell  
adhesion/repulsion**  
(cca=5.0, ccr=25.0)

**High cell-cell  
repulsion**  
(cca=5.0, ccr=50.0)

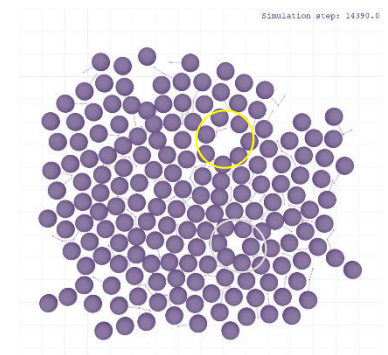
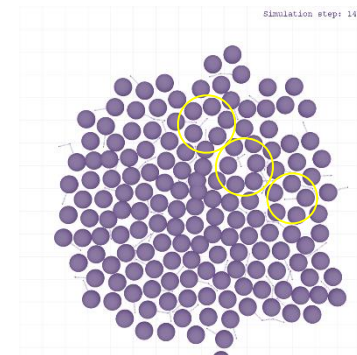
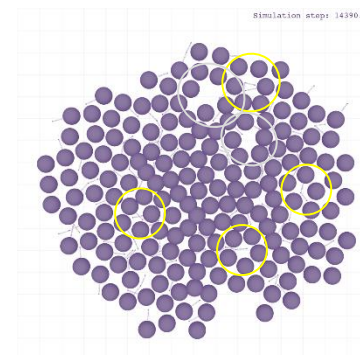
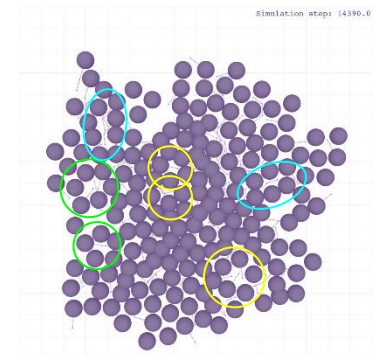
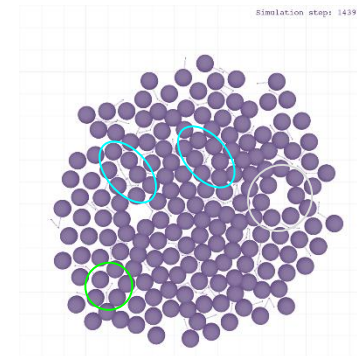
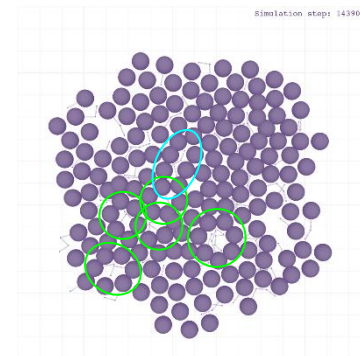
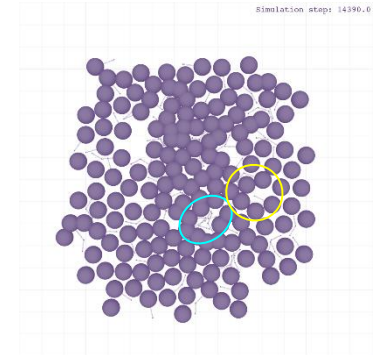
Replicate 1



Replicate 2



Replicate 3



## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- Balanced repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 25.0

- **Neurite-cell interactions:**

- Low repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 15.0

- **Cell-cell interactions:**

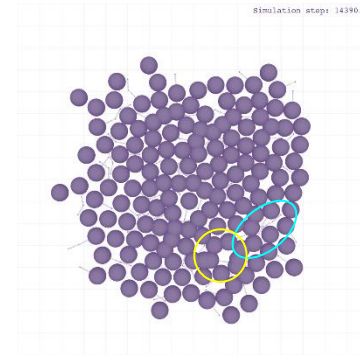
- Variable
- See row label for each case

Low cell-cell  
repulsion  
(cca=5.0, ccr=15.0)

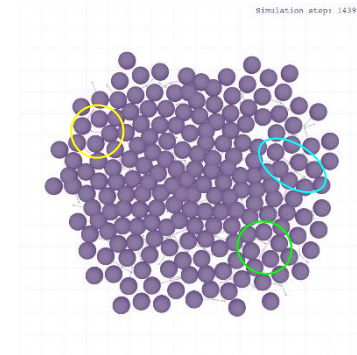
Balanced cell-cell  
adhesion/repulsion  
(cca=5.0, ccr=25.0)

High cell-cell  
repulsion  
(cca=5.0, ccr=50.0)

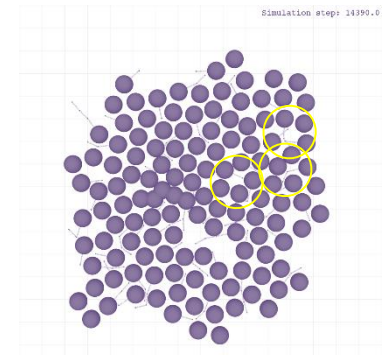
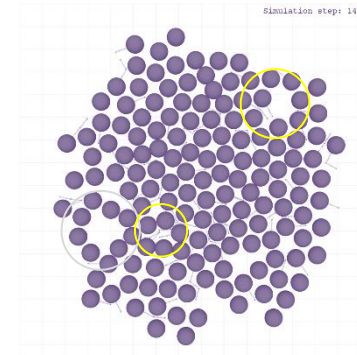
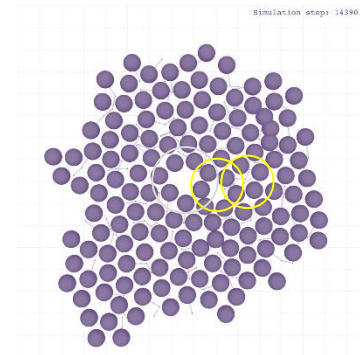
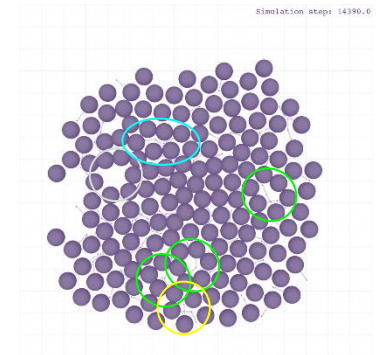
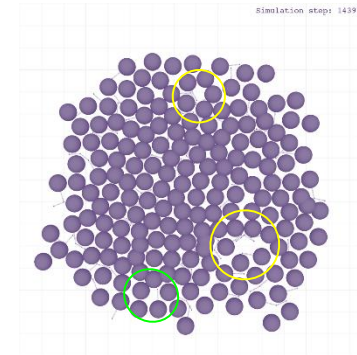
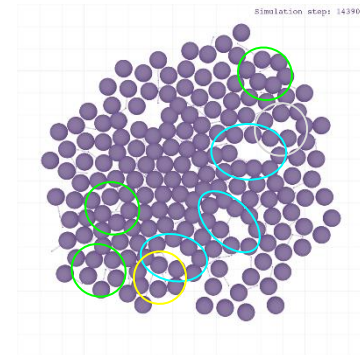
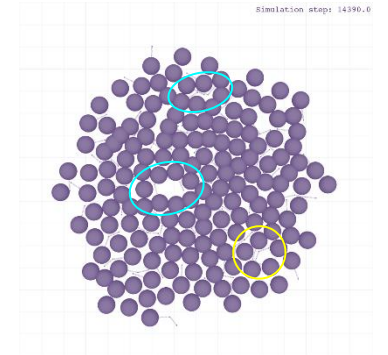
Replicate 1



Replicate 2



Replicate 3





## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- Balanced repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 25.0

- **Neurite-cell interactions:**

- Balanced repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 25.0

- **Cell-cell interactions:**

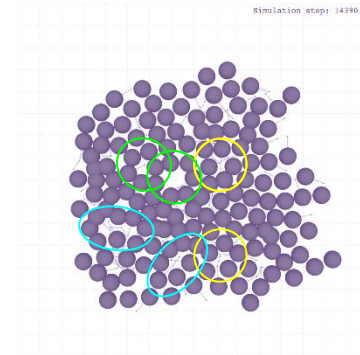
- Variable
- See row label for each case

Low cell-cell  
repulsion  
(cca=5.0, ccr=15.0)

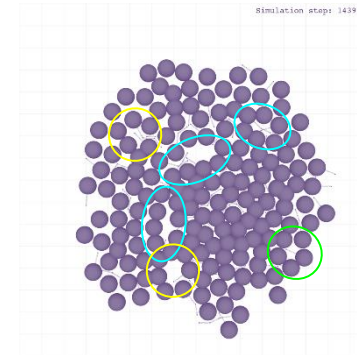
Balanced cell-cell  
adhesion/repulsion  
(cca=5.0, ccr=25.0)

High cell-cell  
repulsion  
(cca=5.0, ccr=50.0)

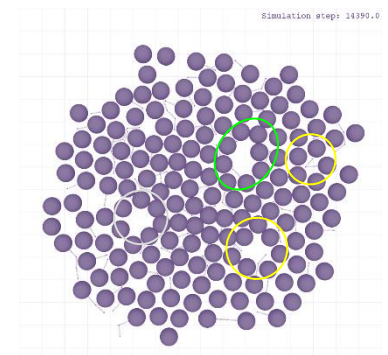
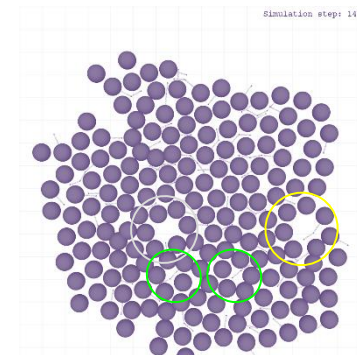
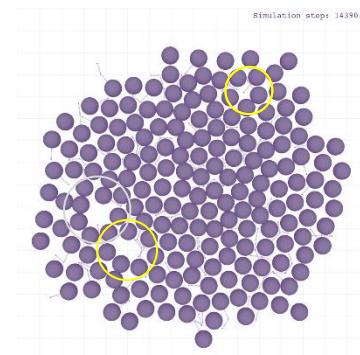
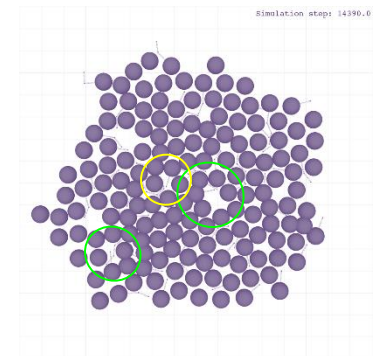
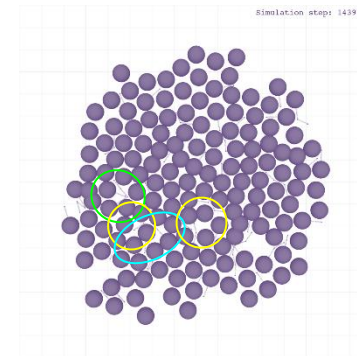
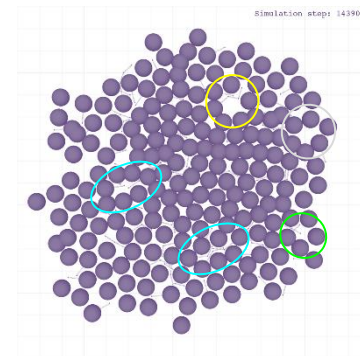
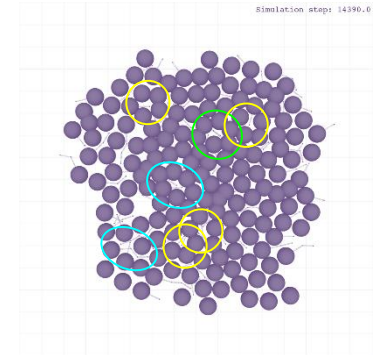
Replicate 1



Replicate 2



Replicate 3



## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- Balanced repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 25.0

- **Neurite-cell interactions:**

- High repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 50.0

- **Cell-cell interactions:**

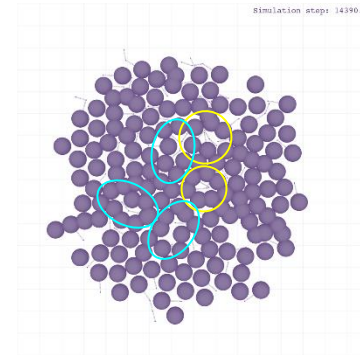
- Variable
- See row label for each case

Low cell-cell  
repulsion  
(cca=5.0, ccr=15.0)

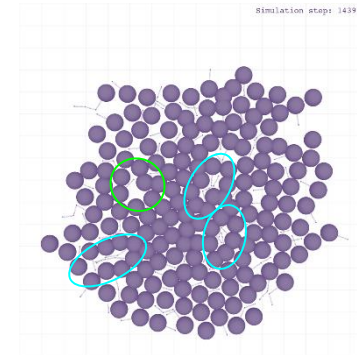
Balanced cell-cell  
adhesion/repulsion  
(cca=5.0, ccr=25.0)

High cell-cell  
repulsion  
(cca=5.0, ccr=50.0)

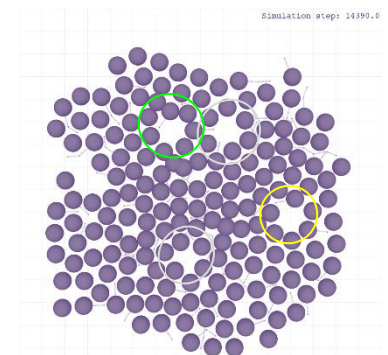
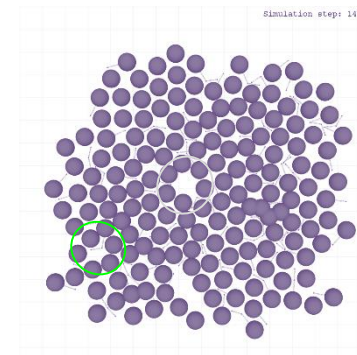
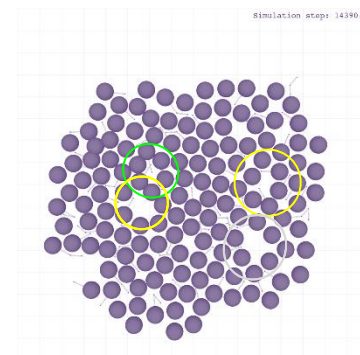
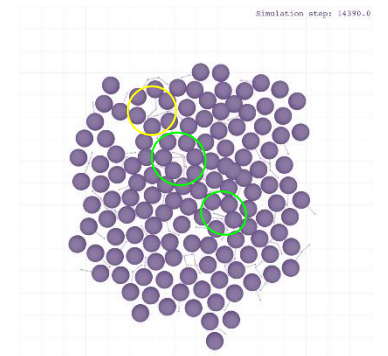
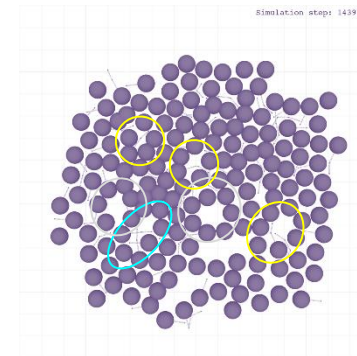
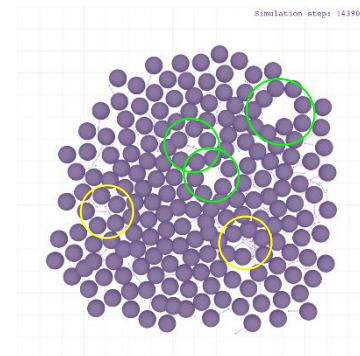
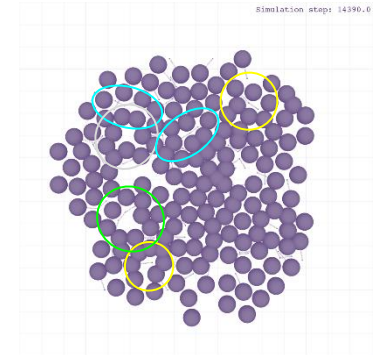
Replicate 1



Replicate 2



Replicate 3





## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- High repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 50.0

- **Neurite-cell interactions:**

- Low repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 15.0

- **Cell-cell interactions:**

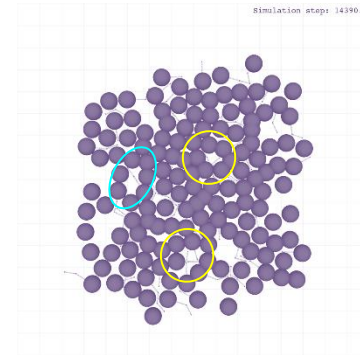
- Variable
- See row label for each case

Low cell-cell  
repulsion  
(cca=5.0, ccr=15.0)

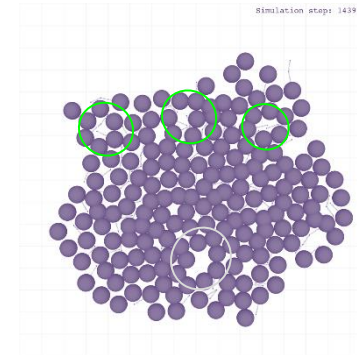
Balanced cell-cell  
adhesion/repulsion  
(cca=5.0, ccr=25.0)

High cell-cell  
repulsion  
(cca=5.0, ccr=50.0)

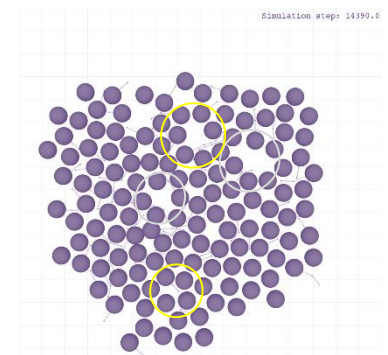
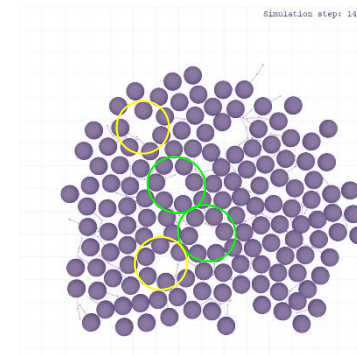
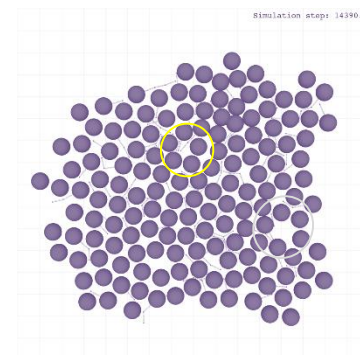
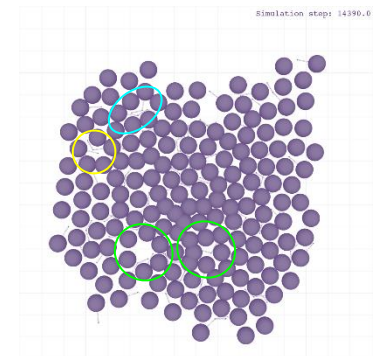
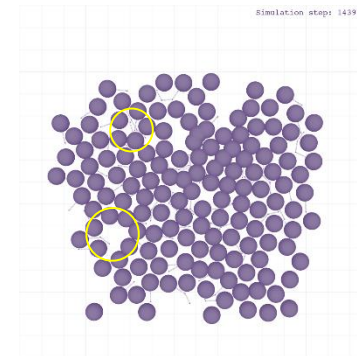
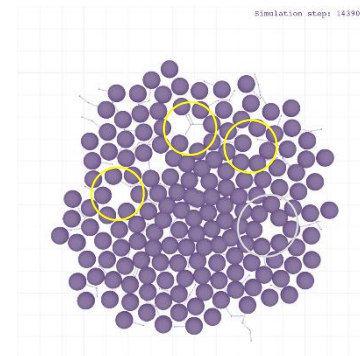
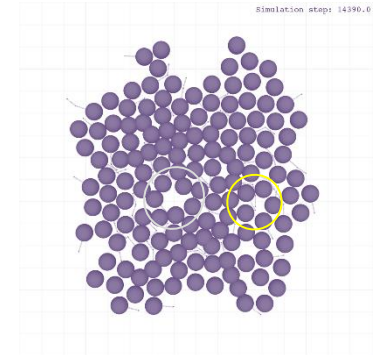
Replicate 1



Replicate 2



Replicate 3





## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- High repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 50.0

- **Neurite-cell interactions:**

- Balanced repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 25.0

- **Cell-cell interactions:**

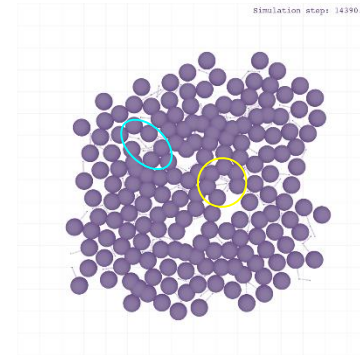
- Variable
- See row label for each case

Low cell-cell  
repulsion  
(cca=5.0, ccr=15.0)

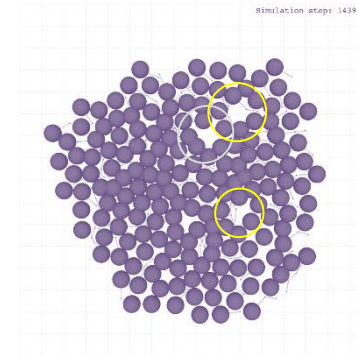
Balanced cell-cell  
adhesion/repulsion  
(cca=5.0, ccr=25.0)

High cell-cell  
repulsion  
(cca=5.0, ccr=50.0)

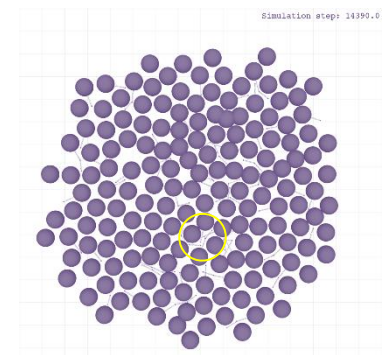
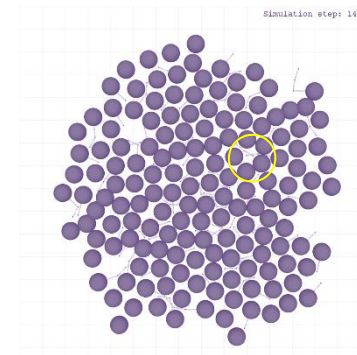
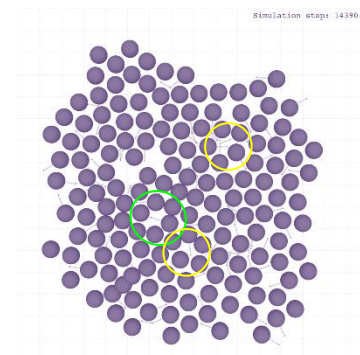
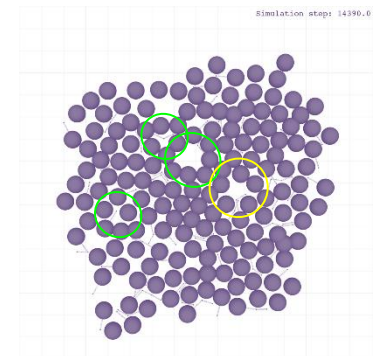
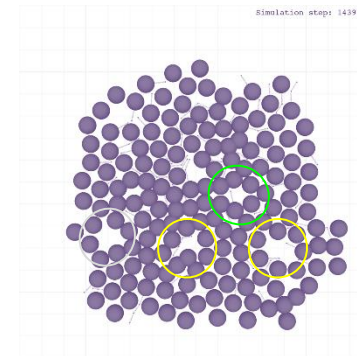
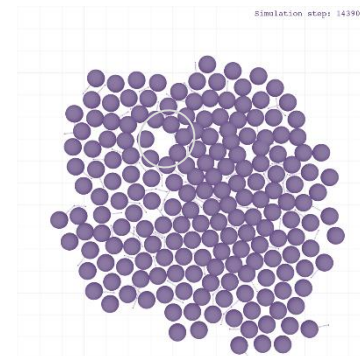
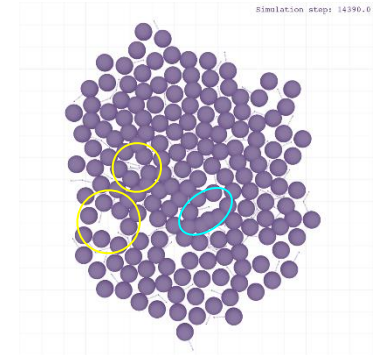
Replicate 1



Replicate 2



Replicate 3



## Rosette formation

### Cell mechanics parameter sweep

- **Neurite-neurite interactions:**

- High repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 50.0

- **Neurite-cell interactions:**

- High repulsion
- Adhesion coefficient: 5.0
- Repulsion coefficient: 50.0

- **Cell-cell interactions:**

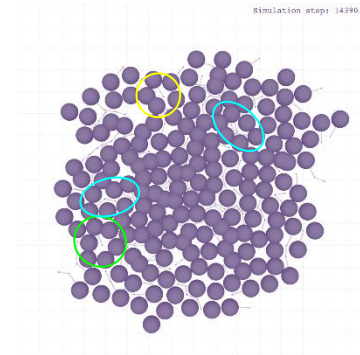
- Variable
- See row label for each case

Low cell-cell  
repulsion  
(cca=5.0, ccr=15.0)

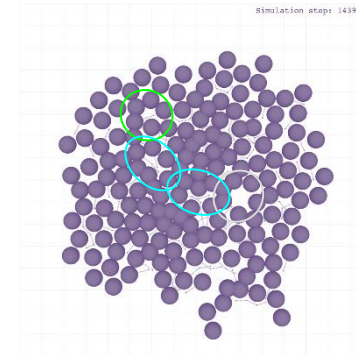
Balanced cell-cell  
adhesion/repulsion  
(cca=5.0, ccr=25.0)

High cell-cell  
repulsion  
(cca=5.0, ccr=50.0)

Replicate 1



Replicate 2



Replicate 3

