SCRIPT CHANGES:

ReceptorLegScript.cs

Updated 6/27/2015 - E. Rogers

Lines 18-19: Disable ATP collider while dropping off a phosphate

Lines 29-30: Enable the ATP collider once phosphate dropped off

Lines 27-32: Change receptor leg tags (referenced in moveG_Protein_Alt.cs)

code added to identify a 'left' receptor phosphate for G-protein docking

if it is a left phosphate, G-protein must rotate to dock

NOTE: EACH PHOSPHATE ATTACHED TO A RECEPTOR IS NOW TAGGED AS "receptorPhosphate"

TimeScale.cs

Just tidied up a bit. TimeScale.cs has been previously modified to allow for restarting the game in fast forward, and the user can fast forward up to x64 (currently), at which time an additional click on ffw will set timeScale back to 1. The user will press the play button to return to timescale back to 1.

MoveG_Protein_Alt.cs

Completely modified:

- G-protein now spawns with a child GDP (per Dr. Cline)
- Once the receptor is ‘phosphanted’, a G-Protein will target it
- The G-protein will ‘dock’ with the receptor phosphate
- After three seconds the G-protein will release its GDP

The code has been heavily commented to aid students in evaluating the functionality.

Prefab Changes:

_InnerReceptorFinalLeft

InnerReceptorOutlineFinal: Disabled Polygon Collider (Does this have any purpose?)

ATP

Phosphate: z-position = 0
Phosphate: z-position = 0
Tail: z-position = 0

G-protein *(Tag G_Protein)*

Position: (0, 0, 0)

Added:

Rigidbody2D
- Mass: 0.5
- Linear Drag: 5
- Angular Drag: 5 *When set to 'Fixed Angle' (as is), this presumably has no effect
- Gravity: 0
- Fixed Angle: True*
- Is Kinematic: False
- Interpolate: Interpolate
- Sleeping Mode: Start Awake
- Collision Detection: Discrete

Box Collider2D
- Material: None
- Is Trigger: False
- Used by Effector: False
- Offset: (0 , 0)
- Size: (1 , 1)

Script: moveG_Protein_Alt
- GDP: GDP
- childGDP: None

Children:

Transporter Outline: position (0, 0, 0)
Transporter Body: position (0, 0, 0)
Transporter Side A: position (-0.63, 0.08, 0)
Transporter Side B: position (0.63, 0.08, 0)

Prefab Changes Continued

GDP (*Tag GDP*)

Position: (0, 0, 0)

Added:

Rigidbody2D

Mass: 0.5
Linear Drag: 5
Angular Drag: 0
Gravity: 0
Fixed Angle: True
Is Kinematic: False
Interpolate: None (Currently – can be changed without affecting functionality)
Sleeping Mode: Start Awake
Collision Detection: Discrete

Circle Collider2D

Material: None
Is Trigger: False
Used by Effector: False
Offset: (0 , 0)
Radius: 0.5

Script: moveGDP_Alt

Max X: 100
Max Y: 100
Min X: -100
Min Y: -100

Children:

Inner Circle Outline: position (0, 0, 0)
Inner Circle Object Body: position (0, 0, 0)

Prefab Changes Continued

Kinase

Position: (0, 0, 0)

Rotation: (0, 0, 0)

Added:

Rigidbody2D

- Mass: 0.5
- Linear Drag: 5
- Angular Drag: 0 .05
- Gravity: 0
- Fixed Angle: False
- Is Kinematic: False
- Interpolate: None (Currently – can be changed without affecting functionality)
- Sleeping Mode: Start Awake
- Collision Detection: Discrete

Polygon Collider2D

- Material: None
- Is Trigger: False
- Used by Effector: False
- Offset: (0 , 0)

Script: moveKinase_Alt

- Max X: 100
- Max Y: 100
- Min X: -100
- Min Y: -100

Children:

- Kinase Outline: position (0, 0, 0)
- Kinase Side A: position (0, 0, 0)

Prefab Changes Continued

Phosphate *(Tag Phosphate)*

Position: (0, 0, 0)

Added:

Rigidbody2D

- Mass: 0.2
- Linear Drag: 5
- Angular Drag: 0
- Gravity: 0
- Fixed Angle: False
- Is Kinematic: False
- Interpolate: None (Currently – can be changed without affecting functionality)
- Sleeping Mode: Start Awake
- Collision Detection: Discrete

Circle Collider2D

- Material: None
- Is Trigger: False
- Used by Effector: False
- Offset: (0 , 0)
- Radius: 0.5

Script: movePhosphate_Alt

- Max X: 100
- Max Y: 100
- Min X: -100
- Min Y: -100

Children:

- Inner Circle Object Outline: position (0, 0, 0)
- Inner Circle Object Body: position (0, 0, 0)

Prefab Changes Continued

Transcription Regulator *(Tag T-Reg)*

Position: (0, 0, 0)

Rotation: (0, 0, 0)

Added:

Rigidbody2D

- Mass: 1
- Linear Drag: 5
- Angular Drag: 0 .05
- Gravity: 0
- Fixed Angle: True
- Is Kinematic: False
- Interpolate: None (Currently – can be changed without affecting functionality)
- Sleeping Mode: Start Awake
- Collision Detection: Discrete

Box Collider2D

- Material: None
- Is Trigger: False
- Used by Effector: False
- Offset: (0 , 0)
- Size: (1.1, 1.2)

Script: moveT_Reg_Alt

- Max X: 100
- Max Y: 100
- Min X: -100
- Min Y: -100