

February 2019

```
function correlation(matrix , cluster)

cell_number_list = unique(matrix(:,4));
cell_list_length = length(cell_number_list);
region_number_list = unique(matrix(:,6));
region_list_length = length(matrix(:,6));

for i = 1: length(matrix)
    for j = 1: cell_list_length
        find(matrix(i)
    end
end

for i = 1: length(matrix)
    for j = 1: cell_list_length
        if

            end

        end
    end
end

xbins = linspace(0,500,100);
ybins = linspace(0,500,100);

cluster_matrix = [];
% x = find

if (matrix(:,6) != 6 || matrix(:,6) !=7 || matrix(:,6) !=8)
    print('Rat inside of trash can')
end

for i = 1 : length(matrix)
    for j = 1 : length(xbins)
        for k = 1 : length(ybins)
            while (xbins(j) < matrix(i) < xbins(j+1) & ybins(k) < matrix(i) < ybins(k+1))
```

```

        if matrix(:,4) == cluster
            cluster_number_i = matrix(i,3);
            cluster_matrix = [cluster_matrix cluster_i]

            % legend Cluster
            % imagesC
        end
    end
end
end
end
end

```