%% "final" figure

figure;

wt =3; you can compare 4 strains, if more you will not make it twice for example 3 against[7,8,9]

mut = [2,4,6];

numMut = length(mut);

subplot(numMut+1,3,3)

Plot2dHist(mHist{wt}/TotalBact(wt), TimeAxis{wt}, GrowthTime, ...

'Appearance Time [minutes]', ...

'Growth Time [minutes]', ...

'');

text(550,350,expDesc{wt},'Color',colour\_{wt},...

'FontSize',8,'FontWeight','bold');

% maxClim = 0.088;

% set(gca,'CLim',[0,maxClim]);

colorbar('location','East');

xlim([300,1500])

ylim([0,500])

for k=1:numMut

subplot(numMut+1,3,(k+1)\*3-2)

hold on;

bar(TimeAxis{wt}, TotalDistr{wt}/TotalBact(wt)/bin,...

totalDistr is an appearance array 0.5,'FaceColor',colour\_{wt},'EdgeColor','none');

bar(TimeAxis{mut(k)}+bin/2, TotalDistr{mut(k)}/TotalBact(mut(k))/bin,...

0.5,'FaceColor',colour\_{mut(k)},'EdgeColor','none');

legend(expDesc{wt},expDesc{mut(k)});

xlim([300,1500])

box on;

% subplot(numMut+1,3,(k+1)\*3-1)

% hold on;

% bar(GrowthTime, GrowthHist{wt}/length(TotubSizeTime{wt})/bin,...

% 0.5,'FaceColor',colour\_{wt},'EdgeColor','none');

% bar(GrowthTime+bin/2, GrowthHist{mut(k)}/length(TotubSizeTime{mut(k)})/bin,...

% 0.5,'FaceColor',colour\_{mut(k)},'EdgeColor','none');

% legend(expDesc{wt},expDesc{mut(k)});

% xlim([0,500])

% box on;

subplot(numMut+1,3,(k+1)\*3-1)

hold on;

bar(GrowthTime, GrowthHist{wt}/length(TotColoniesGrowth{wt})/bin,...

0.5,'FaceColor',colour\_{wt},'EdgeColor','none');

bar(GrowthTime+bin/2, GrowthHist{mut(k)}/length(TotColoniesGrowth{mut(k)})/bin,... growth hist is a growth time array

0.5,'FaceColor',colour\_{mut(k)},'EdgeColor','none');

legend(expDesc{wt},expDesc{mut(k)});

xlim([0,400])

box on;

subplot(numMut+1,3,(k+1)\*3)

Plot2dHist(mHist{mut(k)}/TotalBact(mut(k)), TimeAxis{mut(k)}, GrowthTime, ...

'Appearance Time [minutes]', ...

'Growth Time [minutes]', ...

'');

text(550,350,expDesc{mut(k)},'Color',colour\_{mut(k)},...

'FontSize',8,'FontWeight','bold');

colorbar('location','East');

% set(gca,'CLim',[0,maxClim]);

xlim([300,1500])

ylim([0,500])

end

subplot(numMut+1,3,4)

title('Appearance time histograms','Fontsize',12)

subplot(numMut+1,3,5)

title('Growth time histograms','Fontsize',12)

subplot(numMut+1,3,(numMut+1)\*3-2)

xlabel('Appearance Time [minutes]','Fontsize',12);

subplot(numMut+1,3,(numMut+1)\*3-1)

xlabel(sprintf('Time to reach from %2.0f to %2.0f pixels [minutes]', lb, ub)...

,'Fontsize',12);

%% Export statistical data to csv

% fid = fopen('F:\Scans\Ir20130511\StatIr20130511.csv','wt');

% fid1 = fopen('F:\Scans\Ir20130511\growthStat20130511.csv','wt');

% for i=1:size(Stat,2)

% fprintf(fid,'%s,%f,%f,%f,%f,%f,%f,%f,%f\n',expDesc{i},Stat{i}.total, Stat{i}.Avg, Stat{i}.std, Stat{i}.skw, Stat{i}.kurtosis, Stat{i}.max, Stat{i}.median, Stat{i}.stdMed);

% fprintf(fid1,'%s,%f,%f,%f,%f,%f,%f,%f,%f\n',expDesc{i},growthStat{i}.total, growthStat{i}.Avg, growthStat{i}.std, growthStat{i}.skw, growthStat{i}.kurtosis, growthStat{i}.max, growthStat{i}.median, growthStat{i}.stdMed);

%

% end

% fprintf('finished\n');

% fclose(fid);

% fclose(fid1);