

Supplementary Document 3. The detailed process drawing Lollipop plot.

The detailed process drawing Lollipop plots is as follows:

```
inputFile="cor.result.txt"
setwd("C:\\bio\\Gene\\27.Lollipop")

data = read.table(inputFile, header=T, sep="\t", check.names=F)

p.col = c('gold', 'pink', 'orange', 'LimeGreen', 'darkgreen')
fcolor = function(x, p.col) {
  color
  ifelse(x>0.8, p.col[1], ifelse(x>0.6, p.col[2], ifelse(x>0.4, p.col[3],
    ifelse(x>0.2, p.col[4], p.col[5])
  )))
  return(color)
}

p.cex = seq(2.5, 5.5, length=5)
fcex = function(x) {
  x=abs(x)
  cex
  ifelse(x<0.1, p.cex[1], ifelse(x<0.2, p.cex[2], ifelse(x<0.3, p.cex[3],
    ifelse(x<0.4, p.cex[4], p.cex[5])))
  return(cex)
}

points.color = fcolor(x=data$pvalue, p.col=p.col)
data$points.color = points.color

points.cex = fcex(x=data$cor)
data$points.cex = points.cex
data=data[order(data$cor), ]

xlim = ceiling(max(abs(data$cor))*10)/10
pdf(file="Lollipop.pdf", width=9, height=7)
layout(mat=matrix(c(1, 1, 1, 1, 1, 0, 2, 0, 3, 0), nc=2), width=c(8, 2.2), heights=
c(1, 2, 1, 2, 1))
par(bg="white", las=1, mar=c(5, 18, 2, 4), cex.axis=1.5, cex.lab=2)
plot(1, type="n", xlim=c(-
xlim, xlim), ylim=c(0.5, nrow(data)+0.5), xlab="Correlation
Coefficient", ylab="", yaxt="n", yaxis="i", axes=F)
rect(par('usr')[1], par('usr')[3], par('usr')[2], par('usr')[4], col="#F5F
5F5", border="#F5F5F5")
grid(ny=nrow(data), col="white", lty=1, lwd=2)
segments(x0=data$cor, y0=1:nrow(data), x1=0, y1=1:nrow(data), lwd=4)
points(x=data$cor, y = 1:nrow(data), col =
```

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data$points. color, pch=16, cex=data$points. cex)
text (par ('usr') [1], 1:nrow(data), data$Cell, adj=1, xpd=T, cex=1.5)
pvalue. text=ifelse (data$pvalue<0.001, '<0.001', sprintf("%.03f", data$pva
lue))
redcutoff_cor=0
redcutoff_pvalue=0.05
text (par ('usr') [2], 1:nrow(data), pvalue. text, adj=0, xpd=T, col=ifelse (abs
(data$cor)>redcutoff_cor
&
data$pvalue<redcutoff_pvalue, "red", "black"), cex=1.5)
axis(1, tick=F)

par (mar=c (0, 4, 3, 4))
plot (1, type="n", axes=F, xlab="", ylab="")
legend ("left", legend=c (0.1, 0.2, 0.3, 0.4, 0.5), col="black", pt. cex=p. cex, p
ch=16, bty="n", cex=2, title="abs (cor)")

par (mar=c (0, 6, 4, 6), cex. axis=1.5, cex. main=2)
barplot (rep (1, 5), horiz=T, space=0, border=NA, col=p. col, xaxt="n", yaxt="n"
, xlab="", ylab="", main="pvalue")
axis (4, at=0:5, c (1, 0.8, 0.6, 0.4, 0.2, 0), tick=F)
dev. off ()

```