```
dfworkingQTaxa <- workingQTaxa %>% psmelt() %>% group_by(Sample) %>%
    summarize(Abundance_sum = sum(Abundance), Oxyzen = mean(O2_uM))
p4 <- ggplot(dfworkingQTaxa) + geom_point(aes(x = Oxyzen, y = Abundance_sum),
    size = 5, alpha = 0.7) + geom_smooth(method = "lm", aes(x = as.numeric(Oxyzen),
    y = Abundance_sum)) + labs(title = "Abundance of Plantomyces with respect to oxyzen concent
figureM <- annotate_figure(ggarrange(p1, p2, ncol = 2, nrow = 1,</pre>
    labels = c("(a)", "(b)")), bottom = text_grob("Mothur", color = "blue",
    face = "bold", size = 12))
figureQ <- annotate_figure(ggarrange(p3, p4, ncol = 2, nrow = 1,</pre>
    labels = c("(a)", "(b)")), bottom = text_grob("QIIME2", color = "blue",
    face = "bold", size = 12))
annotate_figure(ggarrange(figureM, figureQ, ncol = 1, nrow = 2),
    bottom = text_grob("Figure 6: Regression analysis of *Planctomyces* across depth",
         face = "bold", size = 12))
 (a)
      Abundance of Plantomyces across depth
                                               (b)
                                                     Abundance of Plantomyces with respect to
                                                  0.4
    0.4
Abundance_sum
                                               Abundance_sum
                                                  0.2
    0.2
                                                  0.0
    0.0
                                                 -0.2
   -0.2
                        100
                                 150
                                          200
                                                              50
                                                                     100
                                                                             150
               50
                                                                                     200
                      Depth_m
                                                                     Oxyzen
                                          Mothur
     Abundance of Plantomyces across depth
                                                     Abundance of Plantomyces with respect to
                                               (b)
Abundance_sum
                                              Abundance_sum
                                                  0.5
   0.5
                                                  0.0
   0.0
                                                 -0.5
                       100
                                                                     100
              50
                                                              50
                                                                             150
                                 150
                                          200
                                                                                     200
                      Depth_m
                                                                     Oxyzen
                                          QIIME2
```

Figure 6: Regression analysis of *Planctomyces* across depth