# Lab 4: Tidying your dataset

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# Prune the dataset

#### Exercise 1

Enforcing one observation per row

```
brauer2 <- brauer %>% select(-GID, -YORF, -GWEIGHT)
```

# Exercise 2

```
brauer3 <- brauer2 %>%

pivot_longer(
   cols = G0.05:U0.3,
   names_to = "sample",
   values_to = "expression",
   values_drop_na = TRUE
   )
```

Enforcing one column per variable and one value per cell

#### Exercise 3

```
brauer4 <- brauer3 %>%
  separate(
    col = sample,
    into = combine("nutrient", "rate"),
    sep = 1
)

## Warning: `combine()` was deprecated in dplyr 1.0.0.
## i Please use `vctrs::vec_c()` instead.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.
```

#### Exercise 4

```
brauer5 <- brauer4 %>%
    separate(
    col = NAME,
    into = combine("gene_name", "biological_process", "molecular_function", "systematic_id", "make sep = "\\\\\"
)

## Warning: `combine()` was deprecated in dplyr 1.0.0.
## i Please use `vctrs::vec_c()` instead.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
```

# Exercise 5

## generated.

```
brauer_tidy<- brauer5 %>%
  mutate_at(vars(gene_name:systematic_id), str_trim)
```

# Visualizations using the tidy dataset

#### Exercise 6

```
brauer_tidy %>% filter(gene_name == "LEU1") %>%
    ggplot()+
    geom_line(aes(x=rate,y=expression, group = nutrient, color= nutrient ))
```

