

# Lab 7: Tidying your dataset

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2023-07-09

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## Prune the dataset

### Exercise 1

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

## Enforcing one observation per row

### Exercise 2

```
brauer3 <- brauer %>%  
  pivot_longer(  
    cols = G0.05:U0.3,  
    names_to = "sample",  
    values_to = "expression"  
  )
```

## Enforcing one column per variable and one value per cell

### Exercise 3

```
brauer4 <- brauer3 %>%  
  separate(  
    col = sample,  
    into = combine("nutrient", "rate"),  
    sep = "_", # Specifies the separator symbol(s) or position  
    convert = TRUE # If TRUE, tries to set data type for new columns  
  )
```

```
brauer4 <- brauer3 %>%
  separate(
    col = NAME,
    into = combine("gene_name", "biological_process", "molecular_function", "systematic_id", "1"),
    sep = "\\|\\|\\|", # Specifies the separator symbol(s) or position
    convert = TRUE      # If TRUE, tries to set data type for new columns
  )
```

#### Exercise 4

```
brauer5 <- brauer %>%
  separate(
    col = NAME,
    into = combine("gene_name", "biological_process", "molecular_function", "systematic_id", "1"),
    sep = "\\|\\|\\|", # Specifies the separator symbol(s) or position
    convert = TRUE      # If TRUE, tries to set data type for new columns
  )
```

#### Exercise 5

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

### Visualizations using the tidy dataset

#### Exercise 6