

# Biostatistics: Exercise 10

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## Exercise 1: Crude and adjusted OR

We are using the data from the case control study on coffee and pancreatic cancer from the lecture. The dataset `coffee.csv` can be downloaded from the website.

- Compute the crude OR and the corresponding 95% CI with the function *fisher.test()* measuring the influence of coffee drinking on pancreatic cancer. Test additionally for an association with the  $\chi^2$ -Test.
- Compute the crude OR and the corresponding 95% CI with a logistic regression model measuring the influence of coffee drinking on pancreatic cancer (adjust for coffee only). Interpret your result.
- Compute the sex adjusted OR and the corresponding 95% CI. Apply a logistic regression.
- Compare the crude and the adjusted OR (and their CIs). Is sex a confounder?