

## MSc Thesis

### Lignan intake in the DONALD study

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Lignans, together with isoflavones and stilbenes are phytoestrogens, belonging to the group of secondary plant compounds. Lignans are classified as pinoresinol, lariciresinol, secoisolariciresinol and matairesinol and are metabolised in the gut to enterodiol and enterolactone. They are the most important source of phytoestrogens in Western populations and are present in wholegrain products, seeds, fruits and vegetables. Phytoestrogens' potential to impact health is through mimicking the female hormone estrogen. They are therefore suggested to influence hormone-related diseases, for example phytoestrogens have been attributed anti-carcinogenic properties. To estimate lignan intake data from food composition tables are used. Recently, comprehensive lignan data were added to Phenol-Explorer.

In the scope of an MSc thesis within the group of 'Nutritional Epidemiology', we are looking for an MSc student to 1) compile a lignan food composition table for the foods consumed within the DONALD study and 2) to investigate lignan intake in this cohort.

#### *Tasks and responsibilities:*

- Compile a lignan food composition table for the foods consumed within DONALD using data from Phenol-Explorer;
  - o Draft a protocol for value assignment;
- Calculate the intake of lignans in the DONALD study and the investigate the main food sources using SAS or R;
- Write an MSc thesis (German or English);
- Present results orally.

You will be encouraged to work independently. Furthermore a proactive attitude and contribution to the regular meetings with the supervisor is expected.

For more information please contact Johanna Rienks ([johanna.rienks@uni-bonn.de](mailto:johanna.rienks@uni-bonn.de)).