Dr Amanda Lloyd

Aberystwyth University, IBERS
Diet & Health Group
High Resolution Metabolomics Laboratory (HRML)
We have pioneered biomarker discovery using metabolomics (chemical fingerprinting) and machine learning to identify and validate urine biomarkers of dietary exposure.

- Fruit and veg biomarkers (unique and broad-range markers)
- Meat (white, red), Wholegrain
- Wine, coffee, tea, fizzy drinks
- Biomarkers of unhealthy foods: such as processed meats
Now we are using these markers and chemical signatures to predict healthiness/unhealthiness of individuals diet

Project urine fingerprints from uncategorised individuals to determine habitual diet by natural clustering

Sampling strategy acceptable in a community sampling regime?
We are looking for help to translate this research into cheap and robust community-based test kits to assess nutritional status and habitual dietary exposure (both point of care or home-used test).

- **Manufacturing urine sampling kits** which are acceptable in a community setting and are suitable for routine use to cheaply and objectively monitor diet.

- Development of **'dip stick' tests** to detect a specific panel of urine biomarkers

- Validate biomarker methodologies in suitable **study populations** (e.g. to assess frailty risk, sarcopenia, malnutrition, pre-diabetes etc.).
Long term collaborators: