Study 1: 120 British volunteers. How compliant are human volunteers to clinical protocols?

CONCLUSIONS: 1) Freeze-drying results in loss of volatiles (e.g., alcohol), throughout.
2) Based on the urinary profiles, a sex difference could not be detected.
3) PCA does not reliably identify non-compliant individuals (e.g., urine no. 50).

Study 2: Swedish versus British volunteers. Are there cultural and dietary differences?

CONCLUSIONS: 1) The Swedish subjects excreted higher TMAO and hippurate.
2) TMAO is associated with fish consumption.
3) The British subjects excreted more creatinine.
4) Taurine was unusually high in urine no. 6, from a female British volunteer, and has been associated with the Atkins Diet (high meat and shell-fish intake).

REFERENCES
1. Metabonomics, dietary influences and cultural differences: a 1H NMR-based study of urine samples obtained from healthy British and Swedish subjects.
2. Arch. Toxicol.
6. H. NMR based study of urine samples obtained from healthy British and Swedish subjects.
7. The effect of freeze-drying to reduce analysis time.
8. Neat urine vs. freeze-dried urine.
9. PCA scores plot and b) raw data.
10. PCA scores plots exported into Spotfire for colour coding.
11. Figures 1a and 1b: The effect of freeze-drying to reduce analysis time.
12. Figures 2a and 2b: Urines from 120 healthy volunteers.
13. Figures 3a and 3b: The PCA scores plots exported into Spotfire for colour coding.
14. Figures 4a and 4b: Representative 1H NMR spectra of Swedish Urines displaying high TMAO/hippurate.