economic importance as it would avoid the empiricism associated with matching the most appropriate drug at its optimal dose for each patient. It might also substantially reduce the need for hospitalisation, and its associated costs, because of adverse drug reactions.

Our increasing knowledge of the mechanisms of drug action, the identification of new drug targets and the understanding of genetic factors that determine our response to drugs may allow us to design drugs that are specifically targeted towards particular populations or that avoid genetic variability in therapeutic response. The extent of genetic polymorphism in the human population indicates that pharmacogenetic variability will probably be an issue for most new drugs.

The development of pharmacogenetics provides at least one mechanism for taking prescription away from its current empiricism and progressing towards more "individualised" drug treatment. In view of the momentum that pharmacogenetics is developing, it is essential that the subject is taught as part of the medical student curriculum.

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When I use a word...

Cheque your spelling

Eye halve a spelling chequer;
It came with my pea sea.
It plainly marques four my revue
Miss steaks eye khan knot sea.

This poem, which has recently been circulating by email marked "Sauce unknown," shows how important it is to check a hard copy of your word processed material. But I often see evidence that writers don't do this simple thing. Take, for instance, a reference to "Hypocrites" (in an article on ancient Greek medicine), or to "Ciba space" (drug companies on the internet?), and the description of an argument as being "full of significant floors" (wrong on many levels or just basically wrong?). The editor also tells me of a surfeit of "morays," as in "O tempera, O morays!" (which, if thus twice misspelt, could mean souls and eels).

Now these are amusing errors, presumably secretarial in origin, but homophonic mistakes of this type have sometimes made their marks on the language. All the examples that I have chosen happen to be about foodstuffs.

- *Bully beef*: Not, as some 18th century secretary seems to have thought, beef from a bull (on or off the bone), but boiled beef, from the French *boeuf bouilli*. In the 19th century it was also called bullamacow.
- *Chickpea*: This is the plant *Cicer arietinum*, after which Cicero was named (having a wart on his face shaped like a seed of the plant). In English it was called cich-pease, which became chickpea, by error in the 18th century.
- *Crayfish/crawfish*: This crustacean was originally called crevisse, a word of the same origin as crab. But in the 16th century natural confusion with *vish* (fish) led to its modern name.
- *Jerusalem artichoke*: This vegetable has nothing to do with the Middle East. A girasole is a plant whose flower turns towards the

sun. Heliotrope, which comes from Greek words meaning "sun turning," was once known as a turnsole. And so the name "Jerusalem," corrupted from "girasole," was attached to the vegetable by some 17th century scribe who misheard it. And what would you call soup made from Jerusalem artichokes? Well, according to Mrs Beeton, that's Palestine soup.

- *Jordan almond*: Another false Middle Eastern association. This nut comes not from Jordan but from *le jardin*.
- *Orange*: Originally naranj in Arabic, this word lost its initial *n* to the preceding indefinite article in the 16th century and became an aranj; and in medieval Latin it was called aurantia, homophonically influenced by aurum, gold (see *BMJ* 1999;318:1758).
- Sometimes the process works in the opposite direction, and a true derivation is misattributed to a homophonic error. For instance, Welsh rabbit. Some have presumed that the term rabbit in the name of this dish (cheese on toast) is a corruption of the words rare bit, but it is in fact the original term. Just as a Bombay duck is a type of curried fish, a Yarmouth capon is a herring, and a Scotch woodcock is eggs on toast, so a Welsh (or sometimes a Scotch) rabbit is a meagre substitute for the real thing. Presumably the term was coined by an Englishman, ridiculing the culinary habits of his neighbours.

And to Finnish, sum mower from that poem about my knew spelling chequer:

Eye have run this filler threw it,
I am shore your pleased two no;
Its letter perfect awl the weigh
My chequer tolled me sew.

Jeff Aronson *clinical pharmacologist, Oxford*