

Into uncharted waters

What was your first experiment as a child?

An attempt (aged 6) to reproduce the conditions of Hell among wooden toys and rubber balls inside the hotplate compartment of the imposing tiled stove in our sitting room. The results hinted that this might be possible, although exact data could not be obtained. The thermometer had melted by the time our neighbours rescued us and the fire brigade arrived. A lesson learned was that you should consider success with all its implications at least as carefully as potential failure.

Who has been the most important mentor in your career?

My junior-school teacher in Budapest, György Ercsényi, who opened my eyes to natural sciences and taught me to appreciate the power of logic without hurting fantasy.

What makes a good scientific mentor?

Being perfectly imperfect while also broad-minded and generous. It is also useful to have something worthwhile to rebel against, and to have something beautiful to cling on to. I was very lucky with my supervisors and mentors: Vilmos Csányi (a chemist who wrote on evolution and behaviour); F. Bruno Straub (who in 1988–89 became the first non-communist president of Hungary); Péter Friedrich, who succeeded Straub at his institute in Budapest; Louise Johnson, who got me into structural biology in Oxford; and David Phillips, who taught me about structures in science.

What single scientific paper or talk changed your career path?

The most recent change was brought about by two lectures: one by Herman Winnick (Stanford Synchrotron Radiation Laboratory) and one by Björn Wiik (DESY, Hamburg), who talked about plans to build an X-ray free-electron laser within our lifetime — plans that might now come to fruition.

What literary character would you employ as a postdoc?

The Queen of the Night. Puck automatically comes in the package.

What book currently resides on your bedside table?

Uncle Petros and Goldbach's Conjecture by Apostolos Doxiadis, and Adlard Coles' *Heavy Weather Sailing*.

What music heads the playlist in your car or lab?
Swedish jazz, Finnish tango, Talking Heads and music from Bartók and Mozart. Weird, isn't it?

Assuming the dead can be raised and/or time travel exists, who from the world outside science would you most like to have dinner with?

Roger II, the Norman king of Sicily, and his adviser, Abu Abdullah Mohammed Ibn al-Sharif al-Idrisi, who between 1139 and 1154 produced an amazingly accurate picture of the known world. *The Book of Roger*, completed in 1154, starts with the following passage: "The Earth is round like a sphere, and the waters adhere to it and are maintained on it through natural equilibrium which suffers no variation." What a beautiful description of gravity. Columbus knew about the book, and rumour says that he had it on his boat.

Where and when would you most liked to have lived or worked?

Here and now. We are probably witnessing one of the biggest changes in the history of biological evolution — a genome is reading itself (and others) a bit like we read books, and then storing this information in unconventional forms for later use.

What one thing would you rescue from your burning laboratory?

Nothing. Such an occasion is an opportunity.

What do you do to relax?

Work on the boat and sail her hard.

What would you have become, if not a scientist?

Some other type of hedonist.

Do you have a burning ambition to do or learn something of no practical or immediate value? If so, what?

Yes I have, and I have been practising it every day in the lab.

Under what conditions do you have your greatest and most inspired ideas?

When teaching or when preparing to teach.

Whose graduate student would you most like to have been?

Max Perutz for scientific supervision and Erasmus of Rotterdam as moral tutor. It is good to have it thick.

What's the best piece of advice you've ever received?

Don't become a missionary. Diversity is beautiful.

What's the one thing about science that you wish the public understood better?

First: you cannot legislate against evolution. Second: look what happened to the dinosaur and remember it.



Janos Hajdu

Janos Hajdu is professor of biophysics at the Biomedical Centre in Uppsala, Sweden. He loves the North, the sea, and does not want to die before seeing a living cell in molecular detail. He may need to prolong his life indefinitely.

Is there a 'tyranny of reductionism' in how scientists are trained today?

Things are changing. There is no such thing as botany, inorganic chemistry or photon physics any more. The big picture is in a mixture, and one needs to be versed in many of the former 'disciplines' to achieve a single goal. I think it is back to the Renaissance, but it is not that easy to turn into a Leonardo (and money does not come from the Medicis or the Sforzas either).

You've just been told (in confidence) that the world will end tomorrow. What do you do next?

I could consider doing that quick experiment that has the potential to destroy the whole world if it misfires but that would save it, of course, if it did not. I could also call my friends, take out the case of vintage champagne, and watch the show together all the way.

What's the most interesting thing in your fridge?
Fermented herring and a whale steak. Don't ask me how they got there. Any takers?

What music would you have played at your funeral?

My interest in music would probably be at its lowest on the occasion.

How would you like to be remembered?
Frequently.