He appreciates the research environment and having a lot of people around him, not least students. He devotes a lot of time to teaching students, too, and is an engaged and admired teacher. Four years ago, he was designated an Excellent Teacher by Uppsala University. This is a rare accolade given to accomplished teachers at the university.

“I am absolutely delighted to be recognized in this way. What I enjoy so much about teaching is the challenge of conveying the complicated and the abstract in an understandable way, and getting so much back from all the students,” says Staffan Svård.

He spent some years outside academia as head of a department of 50-60 people at the Swedish Institute for Communicable Disease Control. Leadership and the team interest Staffan Svård. He believes strongly in collaboration, and says that today many young researchers are interactive, and excellent collaborators. This is a major competitive advantage, making research teams in Sweden productive and successful despite not always being as big as those in the USA, for example. The team is important, but you also need to provide opportunities for individuals to develop and be able to focus on what they are good at, he says. This line of thinking emerged early, and was among the things that Staffan Svård brought with him from the world of sport, having grown up with team sports such as football and basketball. His experience from sport has also been an advantage in his work as a head of department.

“If you provide the right conditions and get each person to perform a little better, the team gets better, too. This is how successful teams are built,” believes Staffan Svård.

He also wishes to communicate and share his knowledge in his field of research, the parasitic disease giardiasis. In 2011, this resulted in a 400-page book about Giardia. Giardia was a common parasite in Sweden over a century ago, but now mainly affects children from the third world. More than 1,500 cases are reported in Sweden each year, the majority having been acquired abroad. However, in recent years Sweden and Norway too have experienced a few large outbreaks due to contaminated water.

“Giardia infection is a common cause of infectious diarrhoea globally. The parasite is widespread in countries with poor sanitation, and causes about 250 million infections in humans per year,” explains Staffan Svård.

Despite the parasite being studied since the 1980s, exciting new research findings are emerging all the time. For example, the parasite may protect against other intestinal infections by reducing inflammation. This is something that interests Staffan Svård and many others, because in the West we have an increasing problem with intestinal infections and inflammatory intestinal diseases such as Crohn’s disease and ulcerative colitis. One theory has been that we are too hygienic, that without intestinal infections of different parasites our immune system does not develop properly. And this makes us vulnerable.

“Giardia can switch off the inflammatory response, and it might be possible to exploit that to reduce intestinal inflammation. In this way, the Giardia parasite might be protective by redirecting immune reactions,” considers Staffan Svård.

We currently treat giardiasis with Flagyl, an antibiotic that is also effective against bacteria. It does not work for everyone, however. The twenty percent who do not respond to treatment must self-heal, which is often a lengthy process. Staffan Svård wants find out why treatment fails. And why only 50 percent of people who contract Giardia become ill. There appear to be two major genotypes of the parasite that infect humans, A and B, with different genotypes in different parts of the world. Furthermore, some people seem to become ill multiple times. It is hoped that studying the parasite’s genome and how it has changed over time will explain why people become ill.

“Sequencing the genomes of different Giardia isolates is one approach. We have used it to find several genotype-specific genes that can be used to diagnose the disease. Other techniques that we use to identify virulence genes and learn about the parasite’s biology include proteomics, microarrays, SAGE and RNA sequencing,” says Staffan Svård.

Material has been collected from patients in Sweden, Nicaragua, Mozambique and Uganda. The research team looks at the similarities and differences in the genomes of the parasites, along with differences in people’s immune responses to the parasites.

“We are looking at this quite widely. And it seems the intestine has a greater significance than previously thought. The intestine and its bacteria also appear to be able to affect the development of the brain, and there might be a link there to mental health problems. It is very exciting, but something we know very little about. So there is plenty more to discover,” says Staffan Svård.
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