

## Raising the roof

The Proteomics Core Facility is going out of its way to offer the best services possible – literally!

The arrival in May of some state-of-the-art new equipment meant Jeroen Krijgsveld's core facility having to take drastic measures; ceiling tiles had to be removed in order to fit the two brand new Bruker mass spectrometers into the lab.

"The new equipment will allow both an increase in throughput and a more detailed characterisation of proteins, allowing identification and quantification on a large scale," says Jeroen, who joined EMBL as a team leader in October last year and took over the running of the Proteomics Core Facility from Thomas Franz in April. "These modern machines can handle complex samples and are ideally suited for the analysis of post-translational modifications, as well as providing more sensitive and reliable results."

As well as offering an improved service to the core facility's existing customers, Jeroen would like to encourage other groups to contact the Core Facility with their biological problems. "Mass spectrometry has many applications above and beyond solving



Jeroen and research technician Sophia Foehr get to grips with the new hardware

structural biology questions," he says. "Just contact us before sending your sample to find out how we can help."

## Training officers join forces for courses

Scientific Training Officers at the EBI and EMBL Hamburg have been exploring ways to join forces and collaborate on different projects, having pinpointed areas in which both units have expertise and offer courses.

The first step towards increased collaboration and streamlined efforts was the visit by the EBI Roadshow to EMBL Hamburg in March. Among the 20 participants, mainly from EMBL Hamburg but also from other institutes on the DESY campus, was one student who came all the way from Cologne for the two-day course.

"Although they were a mixed group of participants with a wide range of abilities and expectations, I think everyone got something

out of the course," said Sanchayita Sen, one of the trainers from the PDBe.

"We hope this will become a regular event," said James Watson, Scientific Training Officer at the EBI.

The roadshow was also an opportunity to discuss potential collaborations together with others members of the Hamburg unit. "Following on from these discussions, we are now putting together a plan for a future course integrating expertise from Hamburg and the EBI, possibly as part of the EBI's hands-on training programme for 2010," says James. The course will start from a dataset of raw diffraction data and teach the students how to interpret this information and build a model of the protein structure. They will then be taken through a range of structural validation and analysis tools to show how the protein's structure can be used to provide biological insights.

"Considering the enthusiasm everybody contributing to this event has shown, we are certain this will be the first of many training collaborative efforts across EMBL," said Vicky Schneider from the EBI.

– Rosemary Wilson



## Science on the brain

On March 18-20 EMBL Monterotondo's ELLS (European Learning Laboratory for the Life Sciences) officer Rossana De Lorenzi helped organise a Brain Awareness Week 2009 event at the Stazione Zoologica Anton Dohrn (SZN, below) in Naples. Aimed at teachers, students and the public, the event included seminars, experiments, posters and videos for an in-depth look at the brain and its secrets.

The first day was dedicated to brain development, with scientific seminars about the evolution of the nervous system. The afternoon saw a session on the psychobiology of childhood and on the role of music during early development. Practical demonstrations during the day included staining techniques to analyse brain tissues to detect neuronal damage.

The seminars on day two focussed on brain and behaviour and the mechanism of memory. The first explained the reciprocity between musical notes and the nervous system and was followed by one on mirror neurons, which are activated by the observation of actions performed by another person. The practicals included the observation of squid and the worm *Caenorhabditis elegans*, model organisms for the study of neurons.

The last day focused on neurodegenerative diseases, traumatic brain injury and psychological disorders, with one session examining artworks created by Alzheimer's patients.

Two small robots, a dog and a dinosaur, were the main attraction. Developed by the Scuola Superiore Sant'Anna as part of a project aimed at understanding biological processes using bionics, such models can be used for the diagnosis of neonatal infarction and rehabilitation of children.

"The different ways of communication that coexisted during the event gave the public the chance to approach new and difficult themes from different perspectives," says Rossana.

