Training Scientists as Managers

By Anne Forde | Jul. 15, 2005 , 8:00 AM

When Paris-based molecular biologist Anne Bertolotti first encountered the phrase "fewer conflicts, more results"--the partial title of a training opportunity for academic scientists--it made a strong impression.

"The Art of Leadership--Fewer Conflicts, More Results," is the name of a laboratory management **course** designed for junior group leaders and run by the European Molecular Biology Organisation **(EMBO)**. At the end of January and the middle of April this year, Bertolotti and 28 other Europe-based researchers -- all EMBO **"Young Investigators"** or group leaders from the European Molecular Biology Laboratory (EMBL) were given the opportunity to explore the major management issues facing researchers.

Management training largely neglected

The course, says EMBO's Gerlind Wallon who is the manager of EMBO's Young Investigator Programme, was a response to scientists' concerns that the first years after becoming a principle investigator (PI) were like "being pushed into cold water." The predominant view among EMBO's young investigators was that preparation to become a laboratory manager was largely neglected in scientific training. It was clear that junior group leaders "really needed help in managing people," says Wallon.

The course--which starting this autumn will also be open to all junior group leaders, not just those funded by EMBO--is focused almost entirely on the human dimensions of research. According to the participants, the course raised their awareness of the most critical issues in the management of lab personnel. Through role playing and other group activities, the course challenged them to find their own ways to lead their groups effectively and find

solutions to conflicts.

This is EMBO's second year running a lab management course. Last year's course, a 2-day programme with nearly 30 participants, was based broadly on the Howard Hughes Medical Institute's renowned **course** (also available as a **book**), which covered such laboratory "soft" skills as time and project management, lab leadership, and conflict management. The design of this year's course was based in part on feedback from the participants in last year's course, who favoured a focus on the human aspects of research--managing people--rather than the organisational ones, and used smaller groups and practical exercises, such a role playing. This year's 5-day **course** was run twice and was divided into 2 sessions, split 3 months apart. The 15 participants in each course were coached by two **trainers** who are **experts** on leadership training.

With grant proposals to write, papers to publish, and students to supervise, a management course might be considered a luxury activity by some. But the participants of the EMBO course--the ones Next Wave spoke to anyway--didn't see it that way. Austrian epigeneticist Anton Wutz, and leader of a group of eight researchers, observes, "Academia has a flat hierarchy; you have no [prior] experience." Consequently, beginning investigators have to learn management skills on the job, or from a course like this one. Argentine immunologist Facundo Batista agrees. "As a postdoc you're used to working on your own; as group leader your responsibilities change completely and you have a lot of expectations of yourself and other people." Taking on a leadership role can be a shock to the system.

Arguably, the most important and difficult task for the scientist-manager is consistently providing constructive and appropriate supervision. Christian Schlötterer, an evolutionary biologist at the Veterinary University of Vienna, says that the course gave him a new insight into the disadvantages of a prescriptive style of supervision compared to what he describes as an "active listening" approach. "When interacting with students, you have a strong desire to give advice," Schlötterer explains. "Through the course I learned not to state my opinion straight away." Schlötterer now sees the value in asking open questions along the lines of "why have you chosen to do it this way?" instead of a questions like "have you done this?" that are likely to yield a yes or no response.

The goal is to "encourage [students and staff] to think of a solution" themselves, explains Schlötterer. Wutz agrees, observing that in the past he felt that giving his students the solution to an experimental problem directly was "the most time efficient way" of supervising their work. He now feels that giving them the space and responsibility to come to a solution themselves is more valuable in the long term. "They will find out a lot by themselves," he says. Bertolotti found the course very useful in helping her see that to be a

good supervisor "I have to allow people to make [their own] mistakes."

But even in the best-supervised labs, conflicts will arise. What new ideas did the course participants learn for resolving conflicts? Batista, who has a research group of seven in London, now believes that acknowledging that other peoples' priorities are likely to vary is half the battle, whether it's the priorities of lab members, group leaders, or institute directors. "I'm more aware that people in different positions have different perspectives," he admits. Group discussions and role playing, he feels, which were modelled in the course, can help a lot. "You realise what you are doing, both right and wrong."

Not friction free

The course, Bertolotti says, helped them learn to deal with conflicts built on the "you are ok: I am ok" premise: recognising where the other person is coming from and why they may disagree with your viewpoint. This is applicable to conflicts between the supervisor and student, as well as to those that occur among group members. Wutz, who admits his lab "is not friction free," says the course gave him a heightened awareness of how various personality types may react differently in different situations, including conflicts. "We need to be aware of our own personalities," he says, "and the influence it can have on a situation."

Initially, not everyone was convinced of the value of a course like this. Says Schlötterer, "I was initially disappointed, as I thought the course would help me get my daily life in order: book keeping, organising things." But in the end, the course far exceeded his expectations. Indeed, the role-playing, practical style of the course proved popular among the participants. Bertolotti liked the fact the course leaders "did not lecture us but gave us hints to develop our own ways to solve problems. It wasn't a recipe book."

Wallon is the first to admit that "the course offers no ready made solutions." She says, "Don't expect to come out perfect." She noted that the course leaders deliberately pushed the participants to come up with their own solutions rather than telling them what they should to do in a particular situation. Their point was that in a real-life situation: "I won't be there with you."

Some participants felt that an important and encouraging step in their development as better managers was achieved simply by meeting other people in the same situation. Says Batista: "You realise you have very similar problems."

The real test, of course is back home in the lab "The course helped me a lot," says Bertolotti, "I think its benefits are not only immediate but long term too, providing I keep working on the basic knowledge I was given."

"I would absolutely recommend the course," says Wutz. "Scientists are always focused on experiments, gaining knowledge, but there is the human side that you need to be exposed to early on."

*The next EMBO Laboratory Management course will take place late Autumn 2005. Please check the EMBO **Web site** for details.*

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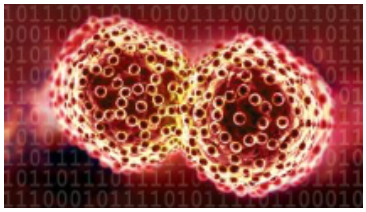

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