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MENTORING AWARDS

Focus on people

Nature announces this year's outstanding science mentors in Ireland or Northern Ireland.

BY PHILIP CAMPBELL

Relentless commitment to the careers of students and postdoctoral researchers has distinguished the recipients of *Nature's* annual mentoring awards since the scheme's inception in 2005. Winners devote much attention to their junior lab members, even as they maintain distinction in their discipline.

This year is no exception. The judges of the 2014 Nature Mentoring Awards confessed to

awe over the level of commitment to mentoring that nominees exhibited. Many qualities make a good mentor (see *Nature* 447, 791–797; 2007), and 2014's entrants display these in abundance.

Each year, the competition takes place in a different country or region; this year it honoured nominees in Ireland and Northern Ireland (see go.nature.com/bacwn3 for details). *Nature* gives out two €10,000 (US\$12,425) mentoring awards each year, one for mid-career achievement, the other for lifetime achievement. Each entry includes written statements

from five people who had been mentored by the nominee at different stages of the nominee's career, as well as a statement from the nominee about his or her mentoring. Although the latter might seem to force immodesty from nominees, it actually helps to reveal their humility by illustrating their philosophy of service to their protégés. Above all, it is a collection of facts about the history of their mentoring and an opportunity to assess their thinking about and experiences in the roles of a mentor.

The six-judge panel, chaired by Luke O'Neill of Trinity College Dublin, was drawn from disciplines across the natural sciences (see go.nature.com/nz8lya for the list). The panel also includes an observer-participant from *Nature*, who this year was myself.

This year's winners are Cormac Taylor, a cellular physiologist at University College Dublin; Cliona O'Farrelly, a comparative immunologist at Trinity College Dublin; and Martin Clynes, director of the National Institute for Cellular Biotechnology at Dublin City University. They received their awards on 3 November at the Science Foundation Ireland Science Summit at the Hodson Bay Hotel in Athlone, Ireland.

MID-CAREER ACHIEVEMENT

Taylor won this year's mid-career award. At a time when the rigour and reproducibility of some science is in question, and lab leaders are under great pressure to deliver, it was gratifying to see in Taylor's statement a strong commitment to robustness. He called appropriate statistical analysis, as well as sound experimental design, ethics and data acquisition 'key cornerstone foundations' for scientific success, and said that he aims to instil the importance of these qualities in his trainees early on. "I try also to balance positive reinforcement and encouragement with a healthy dose of constructive criticism and scientific scepticism when discussing data with my lab members," he wrote.

Of course, many mentors encourage rigour. Several nominators mentioned other qualities. One described how Taylor had helped to ease the common and frustrating career bottleneck from senior postdoc to independent scientist.

The nominator had developed a niche research area that was aligned with, but distinct from, the main research focus of Taylor's lab. "Cormac was unbelievably supportive of my pursuit of this research area and gave me the time, space, resources and mentorship to pursue this area in parallel with my primary projects at the time," the trainee wrote. ▶

ILLUSTRATION BY CLAIRE WELSH/NATURE (SILHOUETTES: NOWICK SYLVIA AND RAWPIXEL/SHUTTERSTOCK)



CLAIRE WELSH/NATURE (O'FARRELLY PHOTO FROM SARAH WHELEEN)

Cormac Taylor (left) won the mid-career award for mentoring; and Cliona O'Farrelly and Martin Clynes share the lifetime award.

► More than one person mentioned Taylor's endorsement of openness in the lab and around its research. "He always made the point that it is more important to present your unpublished data at conferences in order to be recognized scientifically rather than keeping the results secret in the fear of being scooped," wrote one trainee. Taylor's philosophy helped that person to meet and become acquainted with many more researchers in the field than would have been the case otherwise, the trainee wrote.

LIFETIME AWARDS

O'Farrelly and Clynes share the lifetime-achievement award. Nominators wrote that beyond helping with their research, O'Farrelly demonstrated that researchers need not live in ivory towers. "Cliona is living proof that you can engage with people and things outside of science and still be a great scientist," wrote one. "Too many scientists today are reclusive or disengaged with the wider world around them."

That engagement included understanding not only the potential of each lab member, but also his or her personal situation. One nominator described how O'Farrelly helped her to balance parenthood with science. After the student returned from maternity leave, O'Farrelly insisted that she work fewer hours each week. "Cliona said people who are happy will get more work done, and she was right — it was actually the most productive year of my PhD." The nominator added that O'Farrelly showed in many other instances that she is a consistent advocate for women in science.

O'Farrelly's humanity is enhanced by humility and generosity with time and ideas, wrote another nominator. "Her openness and willingness to admit how much she doesn't know (and how much is not yet known) instils an unquenchable curiosity in her mentees. It showed me that scientists are human too, even the high-performing ones."

That humanity extends to helping people through the hard times that afflict any junior researcher. Whenever graduate students hit the proverbial wall, O'Farrelly would fish them from the 'Slough of Despond' and have them review their first lab books with her. "Even for one at the lowest ebb of self-esteem, it is a revelation to see just how plug-ignorant and clueless you were when you started," the nominator wrote. "You cannot help but feel better when it is clear that you have learned so much, and that your toolbox is so much better filled with sharper tools now." The nominator added that this philosophy didn't make O'Farrelly a soft touch. If someone needed an ultimatum and "a quite-brutal shove ... she didn't shy away from it".

In 35 years, Clynes has amassed a portfolio of some 150 students and postdocs, now scattered across many nations and in many roles inside and outside academia, including major established companies and new start-ups. In his statement, he highlighted the virtues of a collective approach to mentoring. Making sure that younger scientists have multiple mentors protects against the "dominance" of a single opinion, Clynes wrote.

He carries the idea of multiple perspectives into lab meetings, saying that he encourages "discussion of problems with science" and that final decisions should not always be made by the scientist with the highest status in the lab. Clynes also supports constructive criticism and says that public humiliation and personal attacks should never take place. Labs should emphasize moving ahead from failure and avoid assigning blame, he said, and lab heads should praise success and encourage effort.

Testimonials from his nominators show

"Although he is never cruel or overly blunt, he doesn't sugar-coat things that can be difficult to hear at the time."

how Clynes's philosophy has helped to foster a comfortable culture in the lab. One nominator pointed to Clynes's skill in balancing honesty with tact. "He can always be trusted to give a student or a colleague a frank and truthful opinion," the person wrote. "Although he is never cruel or overly blunt, he doesn't sugar-coat things that can be difficult to hear at the time."

Such honest feedback generates confidence, wrote another nominator. "Martin repeatedly put me in situations that allowed me to develop, grow, to take responsibility and accountability because he was able to see qualities that I did not yet see in myself." However, the mentee said, Clynes ensures that people earn that sense of confidence honestly. Clynes taught junior researchers to ask hard questions about their own and others' work — "not to be a contrarian", the mentee wrote, "but to continually improve and remain open to other possibilities and options."

Clynes was uncanny about selecting critical moments to challenge his students, wrote another. When the graduate student was facing burnout a year before finishing a PhD, Clynes told the person to stop lab work, summarize the research outcomes thus far, plan the next stage and prioritize the remaining work. The nominator called that experience a "seminal moment", because it provided much-needed big-picture perspective. It also taught the trainee "the value to slowing down to speed up" — a lesson that the person now passes on.

Perhaps Clynes' approach is best summed up by one of his nominators. "Martin's biggest mentoring technique is his unwavering investment in people," the person wrote.

That is a fine mission statement for mentors, and one that would apply to many winners of the *Nature* competition over the years. ■

Philip Campbell is editor-in-chief of *Nature*.