NEWS FEATURE

Encouraging bright ideas

This year has seen the announcement of a flurry of initiatives intended to encourage innovative biomedical research and development. Bethan Hughes investigates the culture of innovation.


BRANDX

Back in 2001, executives at Eli Lilly took an unusual step to access innovation. Although the company was employing 8,000 people worldwide, they felt that they needed to reach more of the world's best scientific minds to help tackle the challenges that they were facing. The result: Innocentive — a web-based "Open Innovation Marketplace", which has now become a global network of 125,000-plus scientists solving a wide range of research problems, with a reward being paid for the best solution.

"Historically, talented people have been limited to supplying their innovation to companies they worked or consulted for, with strong geographic boundaries for innovation," says Darren Carroll, Chairman of Innocentive. "Now though, the internet and other technologies have enabled talented people to provide innovations from anywhere in the world."

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Engaging talented people, and giving them the freedom to pursue novel ideas, is a major factor in stimulating innovative research, believes Susan Gasser, Director of the Friedrich Miescher Institute (FMI), part of the Novartis Research Foundation, based in Basel, Switzerland. "The key to innovation is the people you hire, giving them independence and letting them know that you expect them to be innovative," says Gasser.

This freedom of researchers at FMI enhances Novartis' ability to explore new research directions, feels Gasser. "We provide the unpredictable outcomes, the flexibility to research risky problems and the long-term vision to go after something that isn't going to be solved in 2 or 3 years."

Providing the opportunity for talented investigators to pursue high-risk, high-reward research has also been a feature of initiatives in the United States this year. For example, in October, the Bill & Melinda Gates Foundation announced the Grand Challenges Explorations initiative, which will invest US$100 million over 5 years in creative and unorthodox research projects that could lead to new vaccines, diagnostics and drugs. A streamlined grant-making procedure has also been incorporated. "We want to make it as easy as possible for people with exciting ideas to move their projects forward," said Tadataka (Tachi) Yamada, President of the Gates Foundation's global health programme.

The US government has also been active recently in encouraging such researchers. The New Innovator awards from the National Institutes of Health (NIH), first awarded in September, are intended to support the most accomplished young investigators to work on what they are most excited about, rather than research in what they believe is more likely to attract funding. In a similar vein, the NIH's EUREKA (for Exceptional, Unconventional Research Enabling Knowledge Acceleration) programme, set to award its first grants next year, is targeting investigators who are testing novel, unconventional hypotheses or are pursuing major methodological or technical challenges.

It is hoped that this strong emphasis on the innovativeness of the proposals will help overcome the conservatism typically associated with traditional grant procedures. "It is difficult to change the review culture and encourage reviewers to rank more highly something that is potentially important but is really risky at the expense of high quality, solid, but more incremental science," says Jeremy Berg, Director of the National Institute of General Medical Sciences. "These awards are intended to shift more towards recognizing innovative track record and funding the investigator rather than the project."

Of course, tackling the threat that too much conservatism can represent for innovation is not just important in basic research, but also in industry. "The challenge with innovation is that, at first sight, most generalists will reject it as unlikely," says Jonathan Knowles, President of Group Research at Roche, who have recently reorganized their R&D structure to promote innovation.

With this challenge in mind, among the steps that Roche have taken is to maximize the interfaces between decision-makers at each stage of the drug discovery pipeline (see page 862) by co-locating them in disease biology areas, in the anticipation that this will lead to better decisions. The key to the success of the new R&D model overall though echoes a familiar theme. "The most important factor is people, as a new structure will not work if the people are not right," says Knowles.

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