The *Discussion Forum* provides a medium for airing your views on any issues related to the pharmaceutical industry and obtaining feedback and discussion on these views from others in the field. You can discuss issues that get you hot under the collar, practical problems at the bench, recently published literature, or just something bizarre or humorous that you wish to share. Publication of letters in this section is subject to editorial discretion and company-promotional letters will be rejected immediately. Furthermore, the views provided are those of the authors and are not intended to represent the views of the companies they work for. Moreover, these views do not reflect those of Elsevier, *Drug Discovery Today* or its editorial team. Please submit all letters to Rebecca Lawrence, News & Features Editor, *Drug Discovery Today*, e-mail: Rebecca.Lawrence@current-trends.com

Education: the chemistry between academia and industry ▼

The use of new techniques in industrial research chemistry – for example, solid-phase chemistry, supported reagents, automation and parallel techniques – has the potential to radically change approaches to chemical discovery in many fields. Rapid synthesis methods, multiple parallel synthesis, simple clean-up protocols, rapid informative analytical techniques and rapid (yet powerful) purification techniques are all combining to generate a new approach to discovery research.

So what can we expect of new scientists joining the industry? How much knowledge of the new processes and approaches should they have experienced? Who should have the responsibility of educating them in the newer methods? After all, it is in the industrial setting such as the pharmaceutical industry that these approaches are having the greatest impact. We have a responsibility to our staff to help maintain and develop their knowledge in a continuous learning process throughout their careers. This also enables us to remain at the forefront of our industry in exploiting the newer approaches. However, universities and colleges also have a duty to their alumni. Graduates leaving such institutions should be able to enter and compete in the science arena of today with as much knowledge as is possible of modern approaches. So who should bear the brunt?

To me, the answer has to be both. In house, we have programmes of lectures, workshops and practical courses designed to bring our scientists, both new and more experienced, up to the leading edge of enabled technologies. Universities too have responded, with many now including solid-phase and combinatorial techniques in lecture courses, often presented by visiting lecturers able to give an industrial perspective on these issues. Moreover, some have gone further and instituted solid-phase practical experiments into undergraduate courses. Nevertheless, more needs to be done, but costs and facilities still provide significant hurdles.

However, if it is a shared responsibility then it is through working together that we can achieve greatest reward. The combinatorial network established by several companies and supported by the Royal Society of Chemistry (London, UK; see http://www.chemsoc.org/networks/ccn/index.htm), for example, has provided equipment for many academic centres and opportunities for academic groups to receive training in fundamental techniques in industrial settings. The residential course on combinatorial chemistry established at Southampton has been a further extension to these efforts and makes significant use of both academic and industrial lectures. Another example of partnership was the recent joint funding of combinatorial proposals between the EPSRC (Engineering and Physical Sciences Research Council, UK) and GlaxoWellcome, allowing more postgraduate researchers the opportunity to explore and increase the understanding of new methodologies and techniques.

However a note of caution must be added: if we continually introduce more into the undergraduate courses then something will have to be left out, and the value of such courses risks being undermined. The main requirement of most industrial-based research groups is for new graduate chemists well trained in the fundamentals of their subject and practised in applying these to real problems. Industry approaches are changing and with that, the profile of the research force will change. Graduate chemists are required to support new chemistry development but the support of routine production of compound libraries using well-established chemistries requires alternative skill sets in technology and automation. The take-home message here is that academics and industrialists must work closely together to ensure that the most qualified and most suitably trained students are being produced and that no surprises are in store for either group in the future.

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