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BEING ENTREPRENEURIAL — MORE DIFFICULT FOR SOME?

T IS EASY TO SEE WHY ENTREPRENEURSHIP IS

important. The future wealth of the country will in part derive from bright entrepreneurial individuals competing successfully to provide products and services on a global scale. New employment opportunities are provided by the creation of successful businesses so entrepreneurial activity creates both wealth and jobs as well as a great deal of personal satisfaction and excitement. Creation in students of entrepreneurial consciousness will last a lifetime and facilitate entrepreneurial activity not just immediately after graduation but throughout a long career.

At graduate level, a host of successful businesses have been created by individuals being sufficiently entrepreneurially conscious to spot an opportunity and having the confidence, flair and drive to turn their vision into reality. Graphic design, travel and leisure, catering, computing and IT, garden services, wig manufacture, pet/house sitting and a myriad of other businesses have been established by young people in the years immediately following graduation and in some cases started before graduation.

Bioscience graduates also show entrepreneurial flair and many businesses similar to those listed above have been created by the 50 per cent of bioscience graduates who take up occupations outside the discipline of bioscience.

But what of bioscience graduates who stay in practical bioscience? How do they fair in the entrepreneurial market place? In some areas opportunities do exist with recent graduates setting up businesses associated with biofuels, horticultural businesses and plant production. However in some areas such as pharmacology it may be difficult to raise the £800m needed to develop and market a new medicine or the £2m for a new biochemistry laboratory or even to find the cost of consumable chemical, equipment and laboratory rent. 'Start small and work up the business' is not necessarily an option in laboratory bioscience. Secrecy is also an issue as it only takes one leak for your idea to be the next success story of a large bioscience company. Pace is also a factor. In the five years it takes an entrepreneur to develop a 'wet' bioscience idea into reality the opportunity has gone since science moves on or the idea has been coincidentally brought to the market in six months by a company which put 200 staff to work on its development.

However, there is the opportunity to use entrepreneurial skills within a large bioscience or pharma company, spotting opportunities, getting them on the company agenda and developing them within the support structures provided by the existing bioscience business. At post-PhD level or beyond, three or more years of research activity may have revealed an exploitable idea and the evidence to sell it to a large company or to justify exploitation through a university spin-off company. As a bioscientist, it could be said that I have shown entrepreneurial activity, since products of the business I have run for 30 years are sold in 40 countries throughout the world. But these are based on computer applications to bioscience which could be 'started small and grown', not on a laboratory-based activity which needs extensive and expensive support infrastructure.

Not everybody can/should be an entrepreneur but we may all be able to benefit from the ability to apply some of the skills associated with entrepreneurship in our working lives. For instance one important entrepreneurial ability is to think laterally and consider how to use your knowledge and skills in different areas or to tackle evolving issues. In fact a world populated solely by entrepreneurs may be an unpleasant place to live and entrepreneurs often rely on the social and economic structures created by a diverse society in which to be entrepreneurial. So how have recent graduate bioscientists been entrepreneurial within the laboratory/practical activity of their bioscience discipline? There must be examples of graduates who have been successful entrepreneurs in 'wet' biosciences. Where are they and what did they do? If you know of recent graduates who have an exploitable idea they have been unable to progress then please send it to me in a plain brown envelope! More seriously, at graduate level 'start small and grow the business' is not a viable strategy in 'wet' bioscience because of the initial evidence, investment and facilities needed. So how are new graduates entrepreneurial in 'wet' biosciences? Or is it 10 years or more after graduation, with accumulated contacts, evidence, expertise and capital that this becomes a realistic possibility? At graduate level entrepreneurial activity is indeed more difficult for some.

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Front cover montage: Gordon Beakes, Brian Wilson, Paul F Brain and Neil Smith; Page 2: Cork, Eden Project, Brian Wilson; Page 3: Bread Wheat, Neil Smith; Page 4: Bumble Bee, Paul F Brain; Page 5: Fallen Leaves, Brian Wilson; Page 6: Botryococcus, Gordon Beakes; Page 7: Fruit Fly Eye, Gordon Beakes; Page 8: Eastern Grey Kangaroo, David Dawes; Page 9: Anabaena, Gordon Beakes; Page 10: Flower Head, Brian Wilson; Page 11: Andean Lupin, Department of Agriculture, University of Reading; Page 12: Adonis Blue Butterfly, Paul F. Brain.

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