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LETTERS

edited by Jennifer Sills

Life-Long Learning for Physicians

IN THEIR EDITORIAL (“SCIENCE FOR FUTURE PHYSICIANS,” 5 JUNE, p. 1241), S. Long and R. Alpern emphasized that graduate medical education must keep pace with advancing technology. Practicing physicians and surgeons responsible for current patient care also need continual education in state-of-the-art biomedical and biotechnology research.

A recent review of the recertification results for the American Board of Surgery demonstrated that examinees who were about 30 years out of training were less successful in their examinations than those closer to their time of training (1). The up-to-date scientific knowledge

of such a group can be fundamentally improved by mandatory scientific training sessions throughout their professional careers.

The ever-expanding knowledge in medicine and the ever-changing technology in treatments requires practitioners to constantly educate themselves in their specific fields. Current methods to address this include Continuing Medical Education (CME) exercises with Maintenance of Certification (MoC). Along with the modification of the Medical College Admissions Test, substantial resources should be diverted to scientific education and skills training for specialists. This will ultimately result in improved patient care.

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Reference

1. J. Buyske, *Arch. Surg.* **144**, 101 (2009).

Make Room for Computing

ALTHOUGH P. PEVZNER AND R. SHAMIR, AS WELL as the Bio2010 project, are right about the importance of computational, mathematical, and modeling skills for the next generation of biologists (“Computing has changed biology—biology education must catch up,” Education Forum, 31 July, p. 541), they ignore the realities of the modern biology curriculum and student learning. Specifically, it is unlikely that a single course can achieve the goal they desire.

Computational and modeling mastery is not a trivial topic to append to a curriculum. Moreover, there is no surplus of student credit hours to absorb the courses needed. To introduce new topics in a pedagogically realistic manner, departments will have to restructure currently required courses. This will involve redesigning base biology courses to emphasize the relevance and application of modeling and computational skills, particularly given the observation that many biology students are actively mathphobic. Developing true expertise will require student credit hours.

Where will they come from? One possibility is to redirect credit hours associated with medical school admission (but largely irrelevant to most biologists). Whatever the source, it is clear that programs need to reconsider where our limited resources are currently being spent. We cannot afford to waste the students’ time on irrelevant or ineffectual courses.

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News Story on Italy’s MIT Disappoints

WE WERE SURPRISED BY THE TONE AND CONTENT of the News of the Week story by L. Margottini about the new Italian Institute of Technology (IIT) (“Italy’s MIT grows, and so does controversy,” 19 June, p. 1502).

The remark that international competition was ignored in recruiting IIT scientists is patently false. IIT, at its inception in 2005, set

up international competitions for both senior and junior investigators. These positions were advertised widely in scientific journals, including *Science* and *Nature*. As a result of this international search, four of the six appointed IIT research directors come from abroad, and among junior appointments, one-third are Italians returning from abroad, one-third are Italians already residing in Italy, and one-third are foreigners.

Also untrue is Margottini’s reported concern that IIT’s scientific roster includes big names who do not do the bulk of their work at IIT. Recently appointed senior scientists might continue working at a previous institution for some time while their laboratory space at IIT is refurbished and equipment is ordered. However, after this setup period they do their work onsite.

Margottini’s story is largely based on a report written by Mario Rasetti and Elio Raviola, who visited the institute on 6 June 2007, barely 11 months after the first directors were selected, and before any labs were operational. The IIT laboratories started in a 25,000-m² facility that was first made avail-

able in January 2006. As such, Rasetti and Raviola's report was documenting a work in progress and was designed to monitor the early stages of the Institute's development. Their report reflects problems typical of the birth of new institutions. Nonetheless, the report was regarded, on balance, as positive, and IIT was indeed given continued support.

The News story does not mention the substantial progress achieved by IIT in the past 2 years. After the review by Rasetti and Raviola, an independent international advisory board made an onsite evaluation of IIT in December 2008 and a general assessment in May 2009; both gave IIT a ringing endorsement. The May 2009 report concludes that "[i]n general, both the accomplishments of the past three years and the future plans seem excellent" (R. Horvitz, Nobel Laureate), and that "[t]he IIT initiative has been remarkably successful...the quality of the new members is very high and would be competitive in all highly developed countries" (P. Greengard, Nobel Laureate) (*1*).

Like all major scientific endeavors, IIT has had some growing pains, but we believe it has a very bright future. The best evidence is

something that Margottini overlooks in her article: Scores of excellent young Italian and foreign researchers have returned to Italy or come to Italy for the first time to work at IIT.

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Reference

1. E. Bizzi *et al.*, "Evaluation report of Technical and Scientific Committee of the IIT-Foundation" (9 May 2009).

Response

THE NEWS STORY NOTED BOTH IIT'S SUCCESSES, including positive committee reviews, and criticisms from several sources, on ongoing issues such as conflict of interests, lack of industrial partners, and management structure. While Cingolani and Bizzi may consider Raviola and Rasetti's report "positive," Rasetti's comments suggest otherwise, and Cingolani acknowledges that IIT was never given the full report; Italy's Treasury Department has not made it public despite

requests. Finally, the more recent "independent" assessments cited in the letter are from IIT's ongoing advisory committee that, according to IIT, "collaborates with the President, the Scientific Director and the Executive Committee" on setting budgets and research agendas. The article does not assert that the IIT is a failure, but concludes rather that the young institute remains controversial within Italy. **LAURA MARGOTTINI**

Conflicting Data About Dyslexia's Cause

J. D. E. GABRIELI ("DYSLEXIA: A NEW SYNERGY between education and cognitive neuroscience," Review, 17 July, p. 280) mentions that dyslexia could be the result of a deficit in the magnocellular part of the visual system. He cites only a few corroborating studies and provides no counterexamples. In doing so, he risks leaving the reader with the impression that the support for a magnocellular deficit in dyslexia is solid.

However, the data are conflicting and do not point unequivocally to a magnocellular