

Interdisciplinary Communication

Hypothesis Senior Editorial Board

MANY ACADEMIC INSTITUTIONS are currently offering interdisciplinary research programs and promoting cross-disciplinary collaborations. The University of Toronto is no exception. For example, in July 2006 the university blurred the lines between plant and animal science by combining the departments of Botany and Zoology into two new departments: Cell & Systems Biology and Ecology & Evolutionary Biology. Earlier, in 1999, UofT created the Institute of Biomaterials and Biomedical Engineering — the only department spanning multiple Faculties (Medicine, Engineering, and

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Dentistry) (1). Even as far back as 1907, UofT was ahead of its time in interdisciplinary research programs, when it was only the second university in the world to launch a Biochemistry department (2). A century later, this field has become one of the more established scientific disciplines. Perhaps in another hundred years, interdisciplinary departments and institutes will have become more rule than exception, but we're not quite there yet.

In 2007, UofT's Interdisciplinary Committee published a report in which they identified barriers of interdisciplinary research (3). They found that faculty members working on interdisciplinary projects are at risk of not being understood by their more specialized colleagues. The committee recommended that interdisciplinary researchers need opportunities to clearly

communicate their projects to the university community. But communication is not a one-way process: if researchers in conventional fields are expected to understand the work of their interdisciplinary colleagues, they have to be open to learning about research in other fields. Being a specialist in one's own area is still a requirement to being a good scientist, but it is no longer sufficient.

The effort required to keep up with the latest developments in other fields can be significant. With the pressure of grant deadlines, theses to be written, and the looming threat of being scooped by the competition, there is a natural tendency for scientists to focus most of their time and energy on scrupulously studying the papers related to their own tiny part of the world. Should they now be expected to look at other fields too? Yes, because with the current trend of interdisciplinary research, people who work in those other fields may well turn out to be a future collaborator or coworker.

One place to start reading about research done in other disciplines is *Hypothesis* journal. For example, in this issue you'll find part three of Paul Boutros' series on microarrays. Microarray data are frequently used and cited by other studies, making this series of articles a worthwhile read for anyone in the life sciences. Jeffrey Sharom asks if we're training too many biomedical trainees, but certainly this issue is of interest to scientists from other disciplines as well. And connecting bench science with international issues, Mehrdad Hariri suggests how Canada can support biotechnology companies in the developing world.■