

# An Interview With **JANET ROSSANT**

*Beverly Pearl*

*Dans cette entrevue, Janet Rossant, chercheuse scientifique renommée, discute de son travail en embryologie, et de ce qu'elle pense de la science comme profession. A son avis, c'est dès maintenant que les femmes devraient entrer dans les domaines scientifiques.*

Nearly all successful scientists have, according to Janet Rossant, someone in their past who fanned their naturally inquisitive nature into a burning need to know. Although there were plenty of women role models at the British all-girls school which Janet Rossant attended, it was a high-school biology teacher's support and encouragement which shaped her future.

Now a well-known researcher, Professor Rossant believes that women are often put off science at the high-school level. "At that stage you need encouragement and people who'll turn you on. These days they may not be steering women out of the sciences any more but they aren't necessarily steering them in. Women aren't being shown the opportunities available, and this is the field where the jobs will be."

English by birth, the scientist received all her education in Britain. She did graduate studies at Oxford University, took her Ph.D. at Cambridge, and returned to Oxford for post-doctoral work. In 1975 she moved to Canada to take an assistant professorship at the University of Alberta and, two years later, accepted her present position at Brock University in St.

Catharines.

As an associate professor at the university, Dr. Rossant continues her research into early embryo development. Much of her work involves genetic marking of mouse embryos. For example, if the cells of a black-mouse embryo are added to those of a white one, she can follow where those cells go throughout the development of the mouse. These experiments are technically tricky, but the embryo can withstand the manipulations and still produce a normal mouse. Her work contributes to the basic understanding of embryology on which other scientists build their applications. "Because I was lucky enough to get into the field when it was in its infancy, my early works are still quoted as much as many of my later ones. I had a head start, but that doesn't happen to many people."

Professor Rossant adds that it is not normally a good idea for a student to stay with the same field throughout training. She has to find her own niche if possible, and the best way for her to do that is to work in different labs and move around the world. Once experienced in different areas of research, she can bring them together to form her own area of expertise. Experience a student gains working in labs during summer breaks can be invaluable, and it helps for her to publish, if possible, while writing her Ph. D. thesis.

Recently Professor Rossant spent a sabbatical year at an immunology and a molecular-biology lab because she thought it was time to incorporate this

knowledge into her own research. A scientist must be committed. To do good science she has to have clear questions and clear methods to address those questions. Professor Rossant warns that being a scientist is not a nine-to-five job and that getting a Ph.D. should not just be a way to fill time while a person decides what to do, since getting a Ph.D. means three or four years of very bad pay, very hard work, and no guarantee of a job in the end.

She says, however, that the single-minded concentration and determination of a devoted researcher creates its own rewards. "There are few monetary rewards. Most of us are amazed that someone is paying us to do something which we enjoy," says Professor Rossant.

According to Professor Rossant, doors have opened for competent woman scientists and now is a good time for women to get into biotechnology and computer sciences. "We don't need to encourage women to go into biology at a university level; we need to encourage them to stay in and to keep up with the physical sciences at school. There are many competent women around who just lack that drive, and it's very difficult to change behaviour patterns that are reinforced by society."

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