

A Crooked Path in Science: Stumbling on the Secret of Cell Division

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I. INTRODUCTION /INTERVIEW [1]

-Where you see biological research today, was there serious progress in the last 20 years?

There have been a number of important advances in biology in the last 20 years. To my mind, the discovery that somatic cells can be reprogrammed as stem cells by a rather simple protocol involving the expression of just 4 genes is the most remarkable, and the application of this approach to human disease is already well advanced. Another example comes from the technical advances in DNA sequencing that led to working out not only the human genome but also many other animals, plants and microorganisms from all branches of the evolutionary tree. The unity of life, and the ecological relationships between, for example, humans and their gut microflora are giving us surprising new insights. Meanwhile, cellular processes of all kinds are becoming better and better understood so all in all, the last 20 years have been a golden age of biological research. We understand life processes better than ever!

- What are the possibilities within the European Research Council for scientists from all areas of Montenegro?

The ERC is always hoping to find excellent grant proposals from small countries, but there is a tendency for outstanding scientists to flock together in centres such as Oxford, Cambridge, New York and San Francisco to name but a few, leaving their places of birth behind. This is nothing new, nor is it confined to scientific research. Outstanding artists, actors, financial wizards - they all tend to congregate in places where they find kindred spirits.

-How much molecular and genetic research can help countries such as Montenegro?

I was very impressed by a recent visit to Cyprus to find that the incidence of haematological diseases like thalassemia has been much reduced by a vigorous program of genetic screening and counselling. This represents something of a triumph, I would say, and means a great reduction in the sum of human misery. Since I have not visited Montenegro I don't know anything about your particular problems, if any, that might be helped by molecular and genetic research. As another example of what can be achieved, I have been impressed by Japanese advances in the cultivation of both fish and seaweed, both made possible by a combination of basic and applied research.

-How important it is for scientists to connect and get to know each other better?

It's tremendously important for people with related interests to get together and learn about each other's work.

-Any pearls of wisdom for the science of Montenegro?

Let me come and take a look first!

-Any comments and forecasts about the global science?

People are always wanting to know about the future, but I'm afraid scientists are no more clairvoyant than anyone else. Very few people seem to understand that the business of discovery is by its very nature uncertain: we simply do not know what we do not know! I like this quotation from JBS Haldane, a famous British scientist and brilliant communicator of scientific ideas:-

"In forecasting the future of scientific research there is one quite general law to be noted.

The unexpected always happens.

So one can be quite sure that the future will make any detailed predictions look rather silly."

CURRICULUM VITAE



About Sir Richard Timothy Hunt:

https://en.wikipedia.org/wiki/Tim_Hunt

REFERENCES

- [1] <http://meconet.me/Press-and-Media>, Interview led by Prof. Veljko Milutinović.