

## **European Science Foundation aims to strengthen 'regenerative medicine'**

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14 Member Organisations of the European Science Foundation have launched a key initiative to keep Europe at the forefront of regenerative medicine; broadly defined as the development of stem cell therapies to restore lost, damaged, or ageing cells and tissues in the human body.

Stem cells are the body's 'master cells' that have not yet been programmed to perform a specific function. Most tissues have their own supply of stem cells, and it is becoming clear that if these cells can be given the appropriate biochemical instructions, they can 'differentiate' into new tissue. In this way, for example, stem cells could be seeded into damaged heart muscle to repair it.

Regenerative medicine has many advantages over more conventional ways of repairing or replacing damaged tissues or organs. Because the stem cells are taken from the person being treated, there are no problems with the body's immune system recognising the cells as 'foreign' and attempting to reject them, something that is still a problem with organ transplantation, for example.

To help ensure that Europe retains its competitive edge in the field, the ESF has launched REMEDIC, a research networking programme in regenerative medicine (13 May 2008). For the next five years a steering committee of 13 of Europe's leading specialists in regenerative medicine will organise a series of meetings and workshops to bring together experts to share ideas and develop new collaborations.



"I think this network will be very important to allow scientists in the field to share and disseminate information," says Professor Yrjö Konttinen, of Biomedicum Helsinki in Finland, who chairs the steering committee. "The network is open, so we will be in contact with many different organisations with an interest in the field. We want to meet people, establish joint collaborations with existing programmes and we will also be seeking funding for new initiatives."

REMEDIC will concentrate on the potential of a particular type of cell in the body called mesenchymal stromal cells. These can be obtained from fat tissue and coaxed to differentiate into a range of cell types, including bone, cartilage and muscle. Once the cells are in the relevant tissue, their growth and proliferation can be protected by biomaterials, which are structures implanted into the body that can guide the growth of the new tissue.

REMEDIC's first workshop is planned for mid-August in Helsinki, and a call for short term and exchange visits will be launched in late 2008. REMEDIC is a Research Networking Programme managed by the European Medical Research Councils (EMRC) at the European Science Foundation.

Source: European Science Foundation

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