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Age of enlightenment

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Immunologists have found links between life stresses and failing health.

Immunologists at the University of Birmingham are shedding fresh light on the links between life stresses, such as the death of a spouse or a serious fall, and failing health in older people. Believing that old age should be enjoyed rather than endured, their work could play a key role in shaping how we enjoy our twilight years.

Collaborative research led by Professor Janet Lord in the School of Immunity and Infection and Dr Anna Phillips in the School of Sport and Exercise Science, suggests that diminished immune function caused by emotional stress may help to explain, for example, why it is not unusual for both partners in a long and happy marriage to die within months of each other.
'Our findings suggest that bereaved older people don't die of a broken heart, they die of a broken immune system,' says Professor Lord.

As we age, our immune system becomes less efficient and white blood cells which combat infections, like pneumonia, are less able to kill these pathogens. A reduction in the production of certain hormones from the adrenal glands as we age also has a negative impact on the immune function. The researchers work adjusted the levels of these hormones in blood samples, back to the levels of a younger person, and noted the improved function of the white blood cells.

With the treatment arising from this research for an elderly person estimated to cost as little as £100 per month, the team hopes to win NHS funding for clinical trials. Following these, the treatment could routinely be given to hip fracture patients within six or seven years to improve their resistance to infections following trauma.

By 2020, one in five UK adults will be aged 65 or over and issues of this nature will present a significant social and economic challenge to an aging UK society. To tackle these and other issues, the University has established a Centre for Healthy Ageing Research, bringing together experts in immunology, biosciences, psychology, obesity, social science, stroke, sports science and engineering.

Ageing press release (/news/latest/2010/09/13sept-healthyageing.aspx)

Centre for Health Ageing Research (http://www.medicine.bham.ac.uk/healthy-ageing/) .

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