

Life Knowledge Park at the Institute of Human Genetics

International Centre for Life



Life Knowledge Park is creating a world-class genetic research centre aimed at fundamental improvements in human health. The Park is also delivering early fruits of this research through commercial development, forging a strong regional capability in post-genomic technologies. Existing links with the NHS are being strengthened, enabling emerging discoveries to be evaluated and applied in innovative healthcare. An outstandingly successful forum for addressing public interest and concerns has been established in the Centre for Life, which will participate in the Park to promote genome-related education and ethical debate.

This proposal brings together in partnership a range of organisations led by the University of Newcastle which is delivering against the three themes of multi-disciplinary research, public understanding of science and commercial exploitation. The Park is a partnership between the University of Newcastle and the Centre for Life. Its unifying theme is Genome Instability, a subject of pivotal importance in using genome discoveries to address the major degenerative diseases, including cancer, that are associated with an increasingly aged population. Genome instability is also important for research on stem cell biology. As we

seek to understand the mechanisms that control the unfolding of the human genome in human development, we need to recognise that stem cells are as vulnerable to genome instability as other kinds of cell. This, as yet under-recognised vulnerability must be taken fully into account in developing safe and effective stem cell therapies.

The Park aims to play a leading role in bringing scientific discoveries to the patient population. The Park is creating a new laboratory centre, the Knowledge Crucible, which is hosting interdisciplinary initiatives to catalyse collaborations between the University of Newcastle's world-leading research groups in ageing, cancer and human development. The Park is also promoting links with complementary expertise in the University of Durham. Like the Centre for Life, the Park is bringing emerging scientific ideas and developments into the public arena, fostering informed debate and encouraging a broad portfolio of educational initiatives at school and university level. It is also committing significant effort and resource to building links with companies to take forward the commercial exploitation of scientific discoveries.

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