

Immune cell actions likened to James Bond

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Scientists have found a group of immune system cells they say resemble James Bond, in that they receive a "license" allowing them to kill invaders.

The "licensing" process apparently helps reduce the chances the cells will erroneously attack the body's own tissues, according to researchers at Washington University School of Medicine in St. Louis.

They describe the process as being very different from previously identified methods immune cells use to distinguish invaders. The scientists said the new information might have important implications in understanding persistent viral infections, as well as patients' responses to bone marrow transplants.

The scientists said the immune cells they studied, known as killer cells, rapidly attack invaders and are continually generated in bone marrow, leading to replacement of the entire population approximately once a week.

But the cells only become "fully armed" after a receptor on their surfaces interacts with a molecule on the surfaces of other cells.

Struggling to find ways to describe the process, researchers said they came up with the term "licensing," as in the 007 context.

The study, led by Dr. Wayne Yokoyama, is detailed in the Aug. 4 issue of the journal Nature.

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