Clive Lewis: Every year skin cancer kills 2,000 people in this country. Janet Pearce knows that she will probably be one of them.

Janet: When I went to the consultant and he advised I had probably got three to six months to live. It's shattering you, you can't take it in, it's quite severe really. You think about your life and the days ahead and what's going to happen.

Lewis: From a small mole on her lower leg, the melanoma has spread throughout her body. Her best hope has been chemotherapy, that slowed it down but it hasn't stopped it.
But here at the university of East Anglia a scientific breakthrough could provide a treatment that will.
The key has been these tadpoles and their pigment cells, cells that can mutate into skin cancer just as they can in humans.

Dr Grant Wheeler: What we did was we looked for compounds that would affect the pattern of the pigment cells in the tadpoles, so this would suggest then that the compound is actually affecting the development of the pigment cells and then we tested them on human melanoma cell lines to see if they could affect the growth of the human melanoma cells and one compound in particular did this.

Lewis: That compound is a drug commonly used to treat rheumatoid arthritis. Because it's already been licensed that means that trials could start within months, cutting down the time it becomes available from ten years to possibly three.
This is a massive breakthrough and scientists here believe that this screening process could now be used to help find cures for anything from heart disease through to liver cancer.
For Janet and thousands of others like her this discovery has given them hope.
Clive Lewis, BBC Look East, Norwich.