In a nutshell
Heart failure is a leading cause of death in Switzerland, responsible for 12% of deaths each year. Nearly half of all heart failure deaths can be attributed to cardiac fibrosis. Cardiac fibrosis is a build-up of scar tissue in the heart as a result of stress or damage. This dramatically impairs how the heart works and how efficiently it can pump blood. At the moment, there is no cure for cardiac fibrosis – the condition can only be managed through pain management drugs and beta blockers. These are costly, inconvenient, and don’t provide a cure. Inkocell Therapeutics have developed a new therapy which they hope will cure cardiac fibrosis through a single injection.

Why is our technology important?
Inkocell Therapeutics have developed the first cure for cardiac fibrosis. They are using Natural Killer (NK) cells – a type of cell that plays a crucial role in identifying and destroying infected or abnormal cells in the body. The team have adapted and engineered the NK cells to target active fibroblasts (the cells that produce the cardiac scarring). As the technology targets the problem cells directly, the team hopes that the treatment will be complete with a single shot. Their approach reduces side effects and promotes regeneration of the heart muscle to restore normal heart function.

The benefits of our solution
Inkocell Therapeutics is creating a new standard of medical care. Their treatment allows the heart to regenerate and recover its initial function. This means incessant and cumbersome treatment is a thing of the past. With their engineered NK cell technology, they are offering a one-step cure for lasting health. In vitro results show the treatment is:

- safer, with low side effects
- targeted, only eliminating activated fibroblasts
- efficient, with a high killing rate

Keywords
NK cells – heart disease – cardiac fibrosis – myocardial scarring – fibroblasts - cardiovascular

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