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The Cytoskeleton-Associated Protein *NVR1* Prevents and Reverses Death in *Escherichia coli* and *Caenorhabditis elegans*

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ABSTRACT

The *NVR1* gene codes for a protein which binds to the cytoskeletal protein lokiactin in hydrothermal vent archaebacteria. Here, we demonstrate via a fluorescent reporter that *NVR1* shows binding affinity to the actin-based cytoskeleton of *Caenorhabditis elegans* and the bacterial homolog in *Escherichia coli*. While bound in bacteria, the *NVR1* protein prevents cell division while ensuring the cell survives thermally and chemically lethal conditions. In *C. elegans*, *NVR1* protein is distributed throughout the body and permits cell division to repair tissue damage, but ceases body growth and sexual (gonad) function. *NVR1*-expressing *E. coli* and *C. elegans* do not appear to have a fixed duration on their lives. In addition, transfection of an active *NVR1* gene into heat-killed *E. coli* cells or deceased *C. elegans* specimens restores the life-functions of these organisms via an unknown cytoskeleton-associated pathway. These results were repeated numerous times in a variety of conditions (including heavy physical damage, such bisection of the worm), except nutrient starvation, which ensures permanent death. Deceased specimens as old as five years were also resurrected. The widespread genetic difference between the tested species implies that *NVR1* genes may be able to restore life to any deceased species in the kingdom of life.

[**INTRODUCTION**, **RESULTS** and **METHODS** available for access in full article.]

DISCUSSION

There is no phenomenon of life more universal and unpreventable than death. Death occurs in every species of every family of every domain of life. The demand to prevent and reverse death has built every major religion on the planet. The careers of biologists and chemists are often measured by their impact on the battle against death. Here we have clearly demonstrated that death is indeed preventable and reversible. While energy is present, the *NVR1* protein has the capacity to continually rebuild the bodies of the *E. coli* bacteria and *C. elegans* worms tested. The implications for this work are obvious and terrifying. Due to ethical concerns, the protein remains untested in a mammalian system.

We have made the unconventional choice to classify the samples for this experiment. For at least five years after publication, the Olofsson lab will keep all specimens, sequences, and protein extracts isolated and secured while the 'immortal' specimens undergo further observation and rigorous testing. The *NVR1* gene's original species will remain anonymous here as well. No further specimens, bacterial, worm, or otherwise, will be inoculated with the *NVR1* gene or protein until appropriate ethical conversations surrounding the research are conducted and trusted anonymous sources can replicate our findings. All authors will be under the sustained observation and protection of the Kingdom of Sweden. Please respect the authors' wishes for privacy, security, and continued scientific experimentation.

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CONFLICT OF INTEREST

The authors declare that they are alive, desire to continue to live, and are therefore motivated to publish. Beyond that they declare no conflict of interest.