SAPPHIRE DAWN

BY RICHARD HARTER

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The world in crisis. An age when even a kiss can kill. The unthinkable becomes reality when research scientists accidently unleash the Blue Death. Common as the common cold, but fatal, this new respiratory form of AIDS threatens mankind's very existence. Homo sapiens may simply become a failed experiment in the evolution of life as the world falls into disarray. The single hope for man's future lies in just one woman who must be transformed by fire or see mankind perish.

SAPPHIRE DAWN gives a chilling look at what the near future may hold unless love and compassion inform our politics and how we choose to live together on the planet. SAPPHIRE DAWN reads with the force of prophesy as it delves into today's most crucial issues from the AIDS crisis to armed struggle in the Middle East and the last fight for Jerusalem. Will we realize our darkest fears or achieve enlightenment as we enter wary, into the new millennium? This extraordinary work of fiction may help us answer that difficult question.

Alaethos Anesti

Easter Sunday morning was the most brilliant day Connecticut had seen so far in what had been a very rainy spring. A fresh breeze blew in from Orient Point, the sky was an azure dome over the sound without a cloud in sight. The air was still chilly, but Michael decided to put the top down anyway as he drove along the river to Cramer Chemical. His 'candy apple '63 Vette was the only self-indulgence he afforded himself in the spartan life Michael Riley led as a scientist, and he kept the toy in mint condition. The red enamel was polished into a mirror, the engine tuned to smooth perfection.

Michael still felt a little washed out by a nasty cold that had dogged him all the previous week, but an exhilaration rose in him like the incremental power of the Corvette as he maneuvered deftly through the gears. He had made up his mind and there was no turning back now. A bit recklessly, he accelerated into the curves along the riverbank with mounting excitement. He'd made his decision, and now he flew along filled with high spirits, high resolve, rushing to the guard kiosk rising from a sea of yellow jonquils and daffodils at gate W9.

It wasn't unusual for a research scientist to return to his laboratory to work without interruption on a Sunday morning. But the weekend security guard who checked visitor's clearance took extra time to monitor Michael's retina and voice prints. The smiling face in his photo ID could have been that of Michael's little brother. "Each freckle is where an angel has kissed you," his mother used to tell him when he was a boy, but Dr. Michael Riley didn't look much older at age 36 than he did at age 16. "Kids," the guard muttered to himself and gave Michael a mock salute as the young scientist drove into the compound.

When he had gained entrance to the building and had safely locked the laboratory door behind him, Michael took the small plastic cryovial he had concealed in a voice-coded safe from freezer five. He sat at his desk studying the pink serum, holding it gingerly in the palm of his hand as it warmed to room temperature. For some reason he thought of the quaint Orthodox greeting his old Greek neighbor had insisted on upon rising Easter morning. Each year Michael exchanged the ritual greeting with him when the old man came across the lawn with his gift. The little mesh bag was tied up with a white ribbon and carried a brightly painted egg, the color of blood.

"Christ is risen."

"Indeed He is."

"The dead shall rise again."

"Indeed they shall."

Michael Riley had decided that he couldn't wait for the new century. He was sure his vaccine would work. The situation was critical. He had solved the problem of strain variation when he demonstrated that a genetically engineered loop of the HIV virus produced proteins that could elicit neutralizing antibodies in goats, rabbits and guinea pigs. He was certain he had inactivated the virus by altering the pol gene coding for reverse transcriptase as well as the rev and tat genes to lessen the versatility of the HIV life cycle. It would take additional years to complete primate studies for the vaccine and the world suffered a pandemic that threatened mankind's existence. He had no choice. Homo sapiens was rapidly devolving into an unsuccessful, withered branch on the great tree of evolution.

The crisis was not statistically overwhelming, only one little percent of the world's population was infected. Drought and famine were the rule in Africa, it was understandable somehow that Uganda and Zaire would be wiped out. Burma, Indonesia, and India were being decimated. The Philippines was a nation of orphans. But the tragedy remained distant in the imagination of the West. People had become bored with the disease just when public awareness might have done the most good.

By 1998, however, the millions of people infected with AIDS in Europe and America realized that the death rate for them would be an unqualified 100%. The disease had infiltrated into the heterosexual population and was no longer an illness one could discount among homosexuals and drug abusers. Trying to prevent AIDS by changing sexual habits had proven futile. What teenager ever gave credence to his own mortality, what drug addict cared, as the pain of withdrawal overwhelmed his resolve to stay clean.

Protease inhibitors and multiple drug therapies had proven to be a blind alley despite their initial exhilarating promise. Physicians still had nothing which might offer any real hope to patients and there were violent demonstrations for action at research institutions from the NIH campus in Bethesda to the Pasteur Institute in Paris.

When Michael Riley took science for his mistress, he had given up on religion, or at least put the large questions of existence on hold for a while. It was hard to believe in a god who permitted all the suffering he had seen as a medical student in the AIDS wards, suffering which forced him to turn to research in an attempt to find a cure for the disease. But he still felt the vestigial tide of conscience at work like a strong undertow in his soul. Michael knew it bordered on evil to plod along with primate studies when millions lived under the sentence of an excruciating death often preceded by terrible suffering, blindness, and dementia. In his dreams, the skeletal figures lay mute and cachectic in their sickbeds raising their stick-like arms to him for help. Despite the overturning of Dr. Kervorkian's conviction, the religious right still tied up the courts in their struggle against assisted suicide, and Michael was denied the right to help these tormented souls end their suffering.

"Unless it were an absolute, total emergency, I wouldn't move with a killed virus in uninfected people," Dr. Gallo had cautioned. But what in God's name did he think was going on in the world presently? The moat surrounding Gallo's ivory tower was filled with the victims of the disease. Michael thought of the plague engulfing North Africa in Camus's novel and Dr. Rieux's heroic struggle against the disease, the necessity for human compassion and sacrifice. Gallo's own colleague, Dr. Zagury, had served as a

volunteer in their early immunization experiments, though he stopped short of actually challenging himself with the virus. The vaccine simply couldn't wait any longer.

Michael Riley stood up from his desk chair, loosened his belt and let his trousers fall to the floor. He cleaned a small patch of white skin and copper leg hairs with an alcohol wipe and injected the serum deep into the muscles of his right thigh. He withdrew the syringe and flopped back into the desk chair to rest a second wondering just what Rubicon he had crossed.

He remembered how rigorous his teachers had been on safety precautions when handling the AIDS virus in the laboratory. "Once HIV gets a foot in the door and infects a single cell in your body, it's there for life. It might take five years, but when the virus reproduces it will probably get you," he heard Dr. Desrosiers saying again. But Michael was sure of his work. In this field you had to be. His classmates dubbed him "the roadrunner" in medical school for his type A personality, his energetic self-confidence.

The protocols for making a killed-virus vaccine were long established in the work of Jonas Salk, Putney and Girard. Restructuring the virus's RNA would render it harmless. The chances of something going wrong were statistically insignificant. There was too much at stake not to take the risk. Still, Michael felt a little silly sitting at his desk in his underwear musing on what he had just done like a modern day Dr. Jeckyll monitoring himself in his laboratory for the first signs of Mr. Hyde's dreadful onslaught.

Michael got himself dressed, incinerated the syringe and serum vial in the vacuum furnace, and began to dictate notes to the computer outlining the experiment he had just initiated.

"If I can induce sufficient immunity," he mused, "I'll have to challenge myself with the live virus, of course, to prove the vaccine's efficacy. It's the only way to know for certain. Potentially fatal, but there it is. I've got to have the confirmation. I won't risk it though unless antibody titers go through the roof."

Michael Riley was not even born when in the 1950's a manufacturing error disseminated doses of the Salk vaccine containing the live virus into the general population. As word of the vaccine-induced cases of polio spread, hysterical mothers refused

to let their children be immunized and the vaccine program nearly failed. Had Michael's mother been present that Easter morning in 1998 she might have given him the most basic advice any mother could offer: never take a vaccine if you already have some sort of sickness. For within the serum he administered that morning an HIV virus had managed to maintain its protein coat in the killing process and it entered Michael's blood stream alive and deadly.

The immune system did its job, of course. A passing macrophage engulfed the virus to destroy it, but instead became a reservoir for the pathogen. Like Madame Curie, Michael had inadvertently poisoned himself with his scientific experimentation. Unlike Madame Curie, however, Michael Riley did more than die before the experiment ran its course.

When the infected macrophage in his system tried to kill one of the adenoviruses causing Michael's cold, a budding HIV virion from the macrophage injected a single strand of nucleic acid into the cold virus. The mutant virus was infecting lung cells in no time, turning them into little factories for HIV and the destruction of the immune system. Michael took his cold with him to a number of scientific seminars in California, Florida, and Washington in the months before he was hospitalized with viral pneumonia. The autopsy after Michael Riley's suicide was initially inconclusive. It was only after body fluid samples were analyzed and the new virus they discovered was sequenced at Cramer Chemical that the unthinkable was proven in fact to be the case. HIV had mutated into a respiratory virus and was no longer transmittable only through semen or blood. Like its predecessors, HIV IV was impregnable, hiding inside the host cell to hatch more of the killer virus. Contracting AIDS had become as easy as catching the common cold. A kiss could be fatal. Around the world, so many people suffocated from the disease before they could be seen by a doctor, HIV IV became known as the Blue Death. And death doled out his lethal treats as generously as a psychotic neighbor on Halloween night. Dr. Michael Riley had traveled across the American continent and ushered in the great pneumonic plague which greeted the beginning of the new millennium.