A Lesson From Yellowstone's Deadly Pools

Though tragic, the death of Colin Nathaniel Scott, 23, provides a teaching moment about accepting responsibility and organic chemistry. He's the man from Portland, Ore., who - with his sister watching - disappeared into the highly acidic, boiling volcanic water of Yellowstone National Park on June 8. But first, I offer my condolences to his family.

Most of the people I've talked to, or heard interviewed about this, echoed the reactions of the National Park Service employees. Colin didn't just step off the boardwalk in knowing violation of rules, warnings and posted signs. He was taking a cross-country ramble over what is arguably the most dangerous ground in Yellowstone, its Norris Geyser Basin. Then, about 700 feet away from the safety zone, he slipped on some gravel, broke through a thin precipitated crust of rock and mineral deposits and fell into a boiling hot spring up to 12 feet deep.

I can totally relate to his desire to go off-trail at age 23. That's still within the epoch of exploration, rebellion and invincibility that claims so many young adults. It almost claimed me on several occasions, though when I was in Yellowstone at 20, I stepped only a few feet off the trail. I specifically remember seeing how dangerously thin the mineral crusts were.

When I read about Colin's death, my first thought was sympathy. My second thought was about the origin of life and, by extension, the related problem of what to do with human remains after death.

Nobody's quite sure how life began on Planet Earth, or even if it did begin here. But we do know that the dominant early life forms were microbes without a nucleus. There are two basic kinds. One is the true bacteria, or eubacteria. The other looks like bacteria, but was proven otherwise by DNA sequencing. These we call the archaea.

Many of the archaea are extremophiles. They "like" extremes of some sort, whether heat, cold, salt, acid or desiccation. Many of these extremophiles are thermophiles, meaning they like it hot. And some of these thermophiles are hyperthermophiles, meaning they like it super hot, well above the boiling point of water. Yellowstone National Park is world famous for them. They contribute to the vivid, unearthly colors around the springs that attract tourists in droves.

One prominent theory for the origin of life involves settings comparable to the caldron Colin fell into. We're talking about submerged volcanic vents where hot, acidic water provides the raw ingredients for what may have been life's earliest metabolic pathway. There, archaea make organic matter using boiling bubbles of hydrogen sulfide and carbon dioxide. They can also make food from fool's gold, the mineral pyrite.

The chemical makeup of those earliest microbes is fundamentally similar to that of human flesh, consisting of basic elements - carbon, oxygen, hydrogen, sulfur, nitrogen, phosphorous and traces of others - assembled into proteins, lipids, sugars and nucleic acids.

What happened to Colin's body is the reverse of what happened when life originated. Instead of putting these elements together, they came apart. So utterly apart that the officials searching for his body gave up due to the "futility of it all." In short, his body almost certainly disappeared.

This made me wonder if a similar chemical mechanism might provide a better alternative to present postmortem practices such as being burned to smoke and ashes, buried with the maggots, embalmed with poisons, shelved in a crypt, hermetically sealed or set out to feed the vultures.
I know this suggestion defies cultural norms. And I suspect that those who care about me don't like the idea. But I do, provided that I'm dead before being boiled back to the basics.