SIGNS OF LIFE: A THEORY TO CONSIDER

Comets, meteor showers, volcanoes the size of Texas and an atmosphere of carbon dioxide and nitrogen. This isn't a description of the age of the dinosaur; it's what Earth was like billions of years before dinosaurs arrived.

It's also the environment in which life first emerged on the planet between 3.5 and 3.9 billion years ago.

Based on a three-year study built around investigative techniques that took more than 17 years to develop, Michael Blaber, a structural biologist at the College of Medicine, recently proposed a theory about when and where the first living organisms evolved. His findings were significant enough to be accepted for publication in *Proceedings of the National Academy of Sciences*.

"The current paradigm on the emergence of life is that RNA came first and in a high-temperature environment," Blaber said. "The data we are generating are much more in favor of a protein-first view in a halophile environment."

For the uninitiated, that's a salt-rich locale where, according to Blaber's research, life began as a microscopic, cell-like organization capable of replicating and adapting to environmental conditions.

Blaber's work doesn't explain how life began, but it points strongly in the direction where he believes scientists should be looking.

"Rather than a curious niche that life evolved into, the halophile environment now may take center stage as the likely location for key aspects of biogenesis," Blaber said.

To read more about his study visit med.fsu.edu and search "researcher offers clues."

IN OTHER NEWS

Mohamed Kabbaj, professor of biomedical sciences, received a $1.8 million grant from the National Institute of Mental Health to support his research on the general anesthetic drug ketamine – which also works as an antidepressant. In fact, it works at a lower dosage for women than for men, and he and fellow researchers are trying to find out why. Read more about other compelling research in Kabbaj's lab on Page 22.