

THE SCOOP

The July Newsletter is OUT!!

Scientist of the Month

Gregg L. Semenza

"You can try many different conditions, but if you get a negative result you never know if you are getting closer or farther away."

Scientist Birthday:

1st July' 1956

Trivia about the scientist

Gregg Leonard Semenza is an American biochemist, geneticist and oncologist who shared the 2019 Nobel Prize in Physiology or Medicine with William G. Kaelin Jr. and Peter J. Ratcliffe, for their work on how cells sense and adapt to oxygen availability. Semenza made the ground-breaking discovery of the HIF-1 (hypoxia-inducible factor 1), a protein, which controls genes in response to changes in oxygen availability, and adjust how much oxygen is received by cells.

Discovery in the month July, 2019: Ultra-thin Layers of Rust Generate Electricity from Flowing Water :

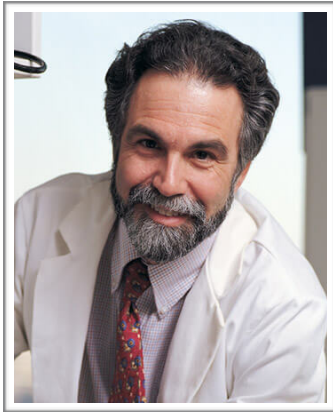
Interactions between metal compounds and saltwater often generate electricity, but this is usually the result of a chemical reaction in which one or more compounds are converted to new compounds. Reactions like these are what is at work inside batteries.

In contrast, the phenomenon discovered by Tom Miller, Caltech professor of chemistry, and Franz Geiger, Dow Professor of Chemistry at Northwestern, does not involve chemical reactions, but rather converts the kinetic energy of flowing saltwater into electricity.

The phenomenon, the electro kinetic effect, has been observed before in thin films of graphene—sheets of carbon atoms arranged in a hexagonal lattice—and it is remarkably efficient. The effect is around 30 percent efficient at converting kinetic energy into electricity. For reference, the best solar panels are only about 20 percent efficient.

Discovery/Invention in the month of July previously:

July 27, 1921 - Canadian scientists Frederick Banting and Charles Best first isolated insulin, and within a year, the first human sufferers of diabetes were receiving insulin treatments.



Frederick Banting was born on November 14, 1891, in his family's farmhouse near Alliston, Ontario. In 1912, Banting started studying medicine at Victoria College, a part of the University of Toronto. He joined the Canadian army in 1915 and graduated a year later. In 1918, he was wounded at the Battle of Cambrai and in 1919, he was awarded the Military Cross for heroism under fire.

Company of the month:

Sun Pharma

Headquartered in Mumbai, Cipla is one of the top 10 pharmaceutical companies in India. It develops medicines to treat respiratory, arthritis, diabetes, cardiovascular disease, weight control, depression and several other medical conditions.

Joke of the month:

Engineer and Mathematician (males) were given the opportunity to compete for a very attractive woman. But there was one condition: "You can only run half the remaining distance between you and the lady". Eng. sprinted forward while Mathematician didn't. "Why aren't you running?" Asked members of the Committee. "Because, by definition, I will never be allowed to reach my target." "And you Eng. why are you running? Don't you know the same? Yes," said Eng. "my learned friend is correct. But I will get close

