Allevi ZeroG, the First 3D Bioprinter in Space

30 July 2018 – Allevi, a 3D bioprinting company, has teamed up with the U.S. space-based manufacturing company, Made In Space, to develop the first 3D bioprinter in space, Allevi ZeroG. It was designed as a compatible extruder to outfit onto Made In Space’s Additive Manufacturing Facility (AMF) on the International Space Station (ISS), which will allow the scientists to run the experiments to explore cellular function and organ form in space. Moreover, it will be useful for astronauts in 3D bioprinting replacement organs for deep space exploration in the future.

Source: 3D Printing Industry News

First Human 3D Color X-ray by CERN Technology

10 July 2018 – MARS Bioimaging Ltd., affiliated with the University of Otago and the University of Canterbury, showed 3D color human body scans using a breakthrough color x-ray scanner based on CERN’s Medipix3 technology. The precise energy levels of the x-rays when they hit each particle in the body were recorded before translated into different colors to represent each component such as bones, muscles, and disease markers. Presently, it has been planned for testing inorthopedic and rheumatology patients in New Zealand.

Source: CERN Updates

Facebook Joins SpaceX and OneWeb in Satellite-based Internet Technology

21 July 2018 – Facebook is trying to bring broadband internet to rural regions and developing countries using satellite technology, after abandoning its solar broadband drone project, Aquila. PointView Tech LLC, a subsidiary of Facebook, plans to launch a low Earth orbit (LEO) broadband satellite named Athena early next year. Elon Musk’s SpaceX and Japan’s SoftBank-backed OneWeb also aim to put Internet satellites into LEO to provide global Internet coverage.

Source: The Verge

Einstein's General Theory of Relativity Confirmed by GRAVITY

30 July 2018 – New observations from three European Space Observatory’s Very Large Telescopes (VLTs) – NACO, SINFONI, and more recently GRAVITY, have revealed the phenomenon of gravitational redshift, which confirmed Einstein’s general theory of relativity. The redshift effect was measured in the gravitational field of Sgr A* which is the closest black hole to the Earth located at the center of the Milky Way by following the movement of a certain star in the Sgr A* system, S2, as it passed close to Sgr A* to detect its position and a shift in wavelength to the red region of the spectrum.

Source: Science News