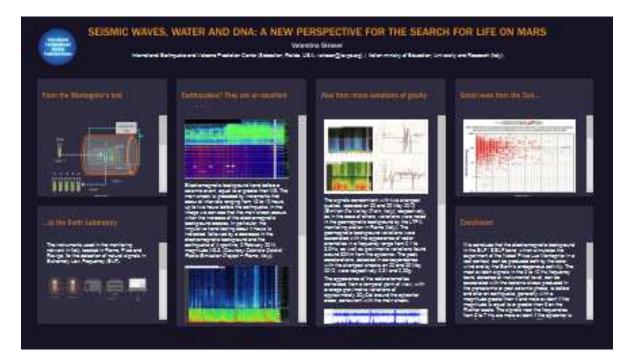
# SEISMIC WAVES, WATER AND DNA: A NEW PERSPECTIVE FOR THE SEARCH FOR LIFE ON MARS

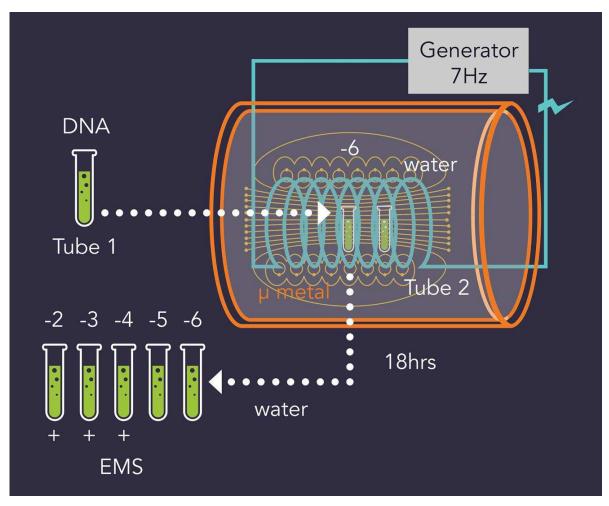


#### Valentino Straser

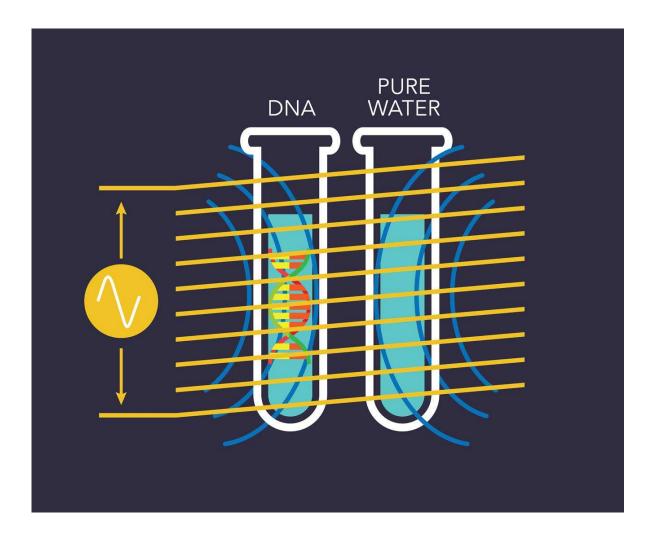
International Earthquake and Volcano Prediction Center (Sebastian, Florida, USA. vstraser@ievpc.org) | Italian ministry of Education, University and Research (Italy)

PRESENTED AT:

## FROM THE MONTAGNIER'S TEST

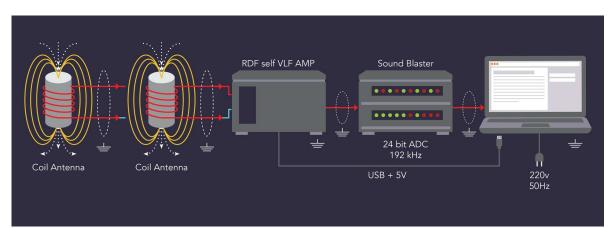


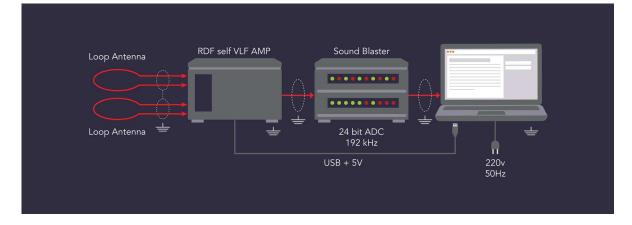
The device used by Luc Montagnier's Equipe for the transmission of DNA at a distance with an electromagnetic background of 7 Hz



### ... TO THE EARTH LABORATORY

The instruments used in the monitoring network in Italy located in Rome, Pisa and Rovigo, for the detection of natural signals in Extremely Low Frequency (ELF).

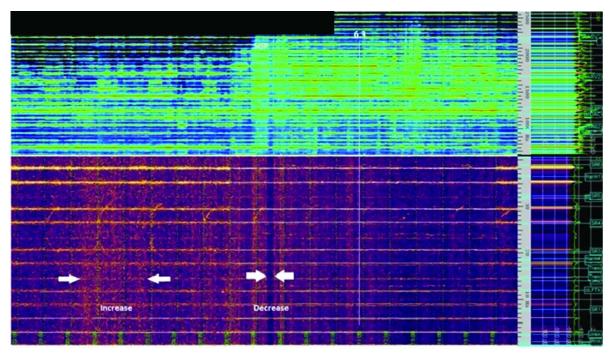




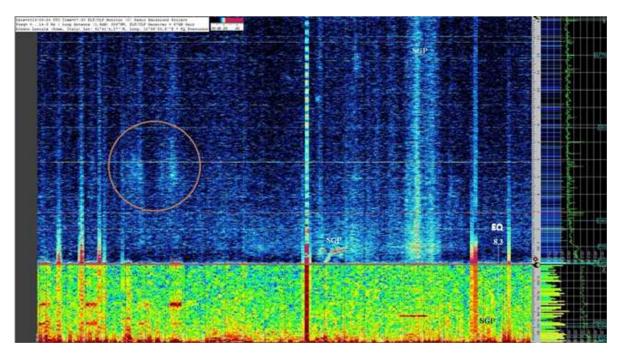


Index map. Monitoring station in **Rome** (number 1), **Rovigo** (number 2) and **Pisa** (number 3).

## EARTHQUAKES? THEY ARE AN EXCELLENT CANDIDATE



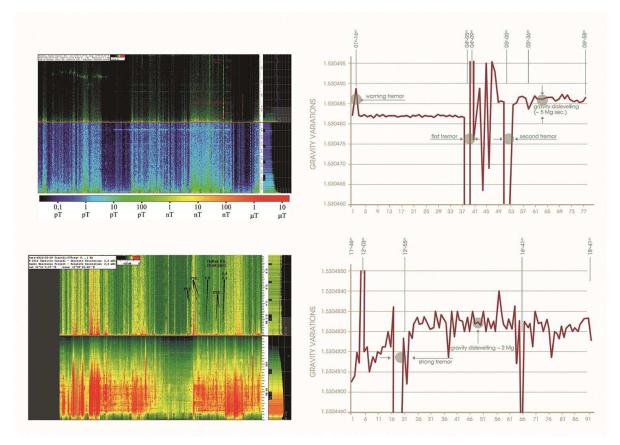
Electromagnetic background trend before a seismic event, equal to or greater than M6. The main shock is preceded by increments that occur at intervals ranging from 15 to 12 hours, up to two hours before the earthquake. In the image we can see that the main shock occurs when the increase of the electromagnetic background ceases. In particular, the impulsive trend lasting about 4 hours is indicated, followed by a decrease in the electromagnetic background and the earthquake of Argentina, 2 February 2014, magnitude M6.3. (*Courtesy Gabriele Cataldi, Radio Emission Project – Rome, Italy*).



Radio anomalies 7Hz frequencies that appear before the earthquake of May 24, 2013, Okhotsk Sea, with hypocenter at 609 Km deeper.

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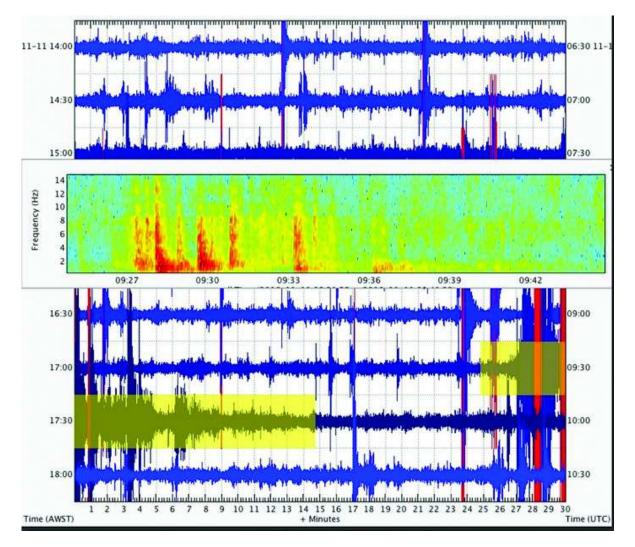
Very low frequency signals with a natural 7 Hz anomaly recorded in Rovigo on 27 December 2018. The instruments is located underground and connected in real time to a computer. The anomaly is not associated with seismic events. (*Courtesy Jerry Ercolini*)



#### ALSO FROM MICRO VARIATIONS OF GRAVITY

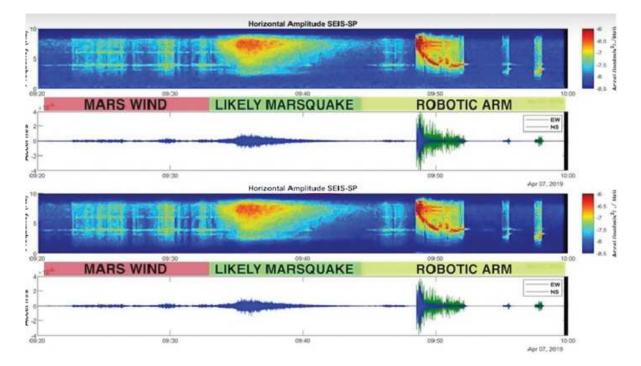
The signals concomitant with two strongest quakes, recorded on 20 and 29 May 2012 (*Emilian Po Valley Plain, Italy*), respectively, as in the case of others, variations were noted in the geomagnetic background by the LTPA monitoring station in Rome (Italy). The geomagnetic background variations were associated with the appearance of radio-anomalies in a frequency range from 0,1 to 3,0Hz, as well as gravimetric variations found around 60Km from the epicenter. The peak accelerations, detected in correspondence with the strongest shocks on 20 and 29 May 2012, were respectively 0,31 and 0,29g.

The appearance of the radio-anomalies coincided, from a temporal point of view, with average gravimetric variations of approximately  $30\mu$ Gal around the epicenter areas, concurrent with the main shock.



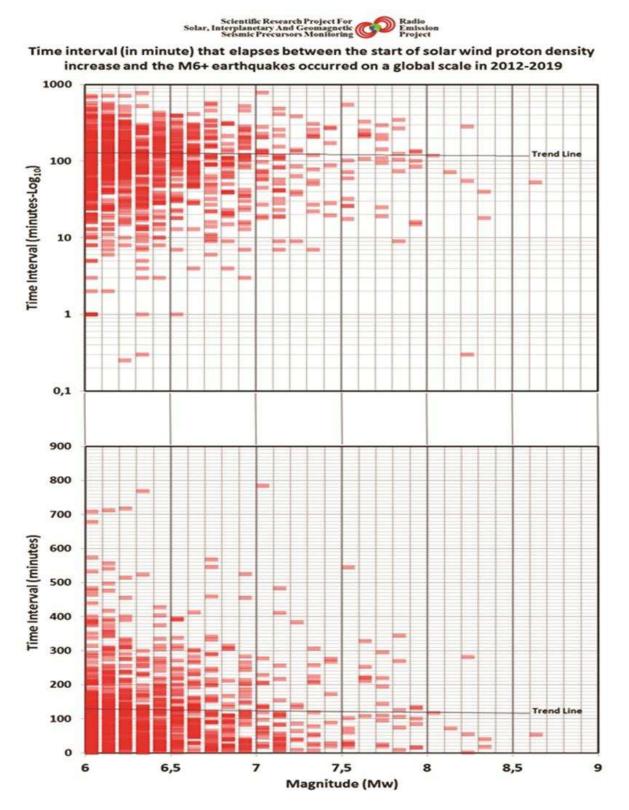
A strange seismic event off the coast of Africa has led scientists to a mighty finding: the discovery of the largest underwater volcanic eruption ever recorded. The eruption also may explain a weird seismic event recorded in November 2018 just off the island of Mayotte, located between Madagascar and Mozambique in the Indian Ocean. For starters, the hum rang at a single, ultralow frequency, which was strange because seismic waves usually rumble at many frequencies. (*Credit: Mark Tingay*)

#### ... and on Mars



The seismic signal detected by the lander's Seismic Experiment for interior Structure (SEIS) instrument, was recorded on April 6, 2019, the lander's 128th Martian Day. The frequency of Marsquake is around 7 Hz, like the signals detected in more cases in Rovigo monitoring station (Italy). (*Credit: Nasa*)

## GOOD NEWS FROM THE SUN...



The study conducted from 1st January 2012 to 31st December 2018 by Gabriele Cataldi, Daniele Cataldi and Valentino Straser made it possible to ascertain that 2.63% of potentially destructive earthquakes (M6 +) occurring on a global scale are preceded by an

ionic increase " impulsive"; 97% of potentially destructive earthquakes are preceded by a gradual ionic increase, while 0.37% of potentially destructive earthquakes are preceded by both types of ionic increase, caused by a solar flare, from a coronal hole or simply from the magnetic loops that form above the sunspots.

On average, between the beginning of the Ionic increment and the event seismic activity associated with it takes about 5.36 days (the data is based on the analysis of solar ion flux modulation and of 923 seismic events that took place between January 1, 2012 and December 31, 2018) that correspond to 128.79 hours. (*Courtesy LTPA Project*)

## CONCLUSION

We conclude that the electromagnetic background in the ELF / SELF band, which simulates the experiment of the Nobel Prize Luc Montagnier in a real context, can be produced both by the solar wind and by the Earth's endogenous activity. The most evident signals in the 0 to 10 Hz frequency band, detected at instrumental level, can be associated with the tectonic stress produced in the pre-seismic or post seismic phase, ie before and after an earthquake, generally with a magnitude greater than 4 and more evident if the magnitude is equal to or greater than 6 on the Richter scale. The signals near the frequencies from 5 to 7 Hz are more evident if the epicenter is near the monitoring station, even if the second station of Rovigo (North-Eastern Italy) has detected similar signals for earthquakes of magnitude greater than 6.5 that occurred in remarkable distance. In reality, the problem of the connection between solar activity and seismic activity remains open, which appears to be synergistic and associated in all the cases studied. A similar investigation can be carried out on Mars, since the presence of an endogenous Martian activity and of the solar activity that influences as well as the Earth, even Mars, is now certain. An important confirmation on the noise of a fund on Mars, in the range between 5 and 10 Hz, arrived with the registration of the first candidate Marsquake on 6 April 2019.

#### AUTHOR INFORMATION

Valentino Straser (Italian teacher) is an Scientist Associate of International Earthquake and Volcano Prediction Center (USA), he presented his studied in international conferences in India, Australia, South Africa, Africa, Russia, Europe (French, Austria, Italy) and USA. His research, 100 papers, has been published in international scientific journals.