Law of probabilities backs hopes for E.T., conference hears

January 25 2010, by Richard Ingham

The law of probabilities backs theories that we are not alone in the Universe, although an encounter with an advanced civilisation may shock our species, scientists at a conference said here on Monday.

"There is no firm evidence that life exists elsewhere, but there is a very firm probability (for it)," said Baruch Blumberg, an astrobiologist at the Fox Chance Cancer Center in Philadelphia.

"My clear prediction is that living generations have an excellent chance of seeing extra-terrestrial life being detected," said Martin Dominik, an

astronomer at the University of St. Andrews, Scotland.

Life on Earth may have been kickstarted thanks to carbon molecules and dust that drift through interstellar space, said Pascale Ehrenfreund, an astrochemist at George Washington University, Washington.

If so, "the basic building blocks of life -- at least as recognised on Earth -- must be widespread in planetary systems in our Milky Way and other galaxies," she suggested.

The two-day conference is being hosted by Britain's Royal Society, one of the cradles of modern science, as part of a series of discussions on major issues to mark the academy's 350th anniversary.

The meeting is not intended to give any conclusion on whether other life exists but give a snapshot of where we are in our quest to find it -- and speculate on the impacts of such a discovery on human society.

Lord Rees, president of the Royal Society, said it was essential to admit to our present ignorance.

"We don't even know how life began here on Earth and that being said, we don't even know how to place our bets on how widespread life is or where to look for it," he said in an interview.

Even so, new astronomical tools, including powerful orbital telescopes, are exposing "extra-solar" worlds, or planets orbiting other stars, and one of them could eventually be revealed as a potential haven for life, said Blumberg.

Since 1995, "more than 400 extrasolar planets have been detected and the number is increasing rapidly," he said.

Intriguingly, though, none so far has been found to be in the lucky position of Earth.

We inhabit a rocky planet orbiting in the so-called Goldilocks zone, where it is not too hot, not too cold but just balmy enough for water, one of the key ingredients for life as we know it, to exist in liquid form.

Some of the speakers scorned Hollywood's notion of the extraterrestrial, whose anatomy was invariably inspired by a human design (four limbs and a head housing an external brain) and whose behaviour was driven by human emotions of anger and love.

If alien life exists, our first discovery is likely to be in microscopic form, which would not be too disconcerting for our civilisation, said Albert Harrison, a social psychologist at the University of California at Davis.

It could be as a bacterium found in promising sites in the Solar System such as the sub-soil of Mars, Jupiter's satellite Europa or on the Saturnian moon Enceladus, which are thought to harbour oceans beneath their icy crust, some hope.

Simon Conway Morris, a professor of evolutionary palaeobiology at the University of Cambridge, offered a contrasting view.

"My own opinion is that the origin of life is a complete fluke," he said. "I fear that we are completely alone... there's nothing (out) there at all, not a thing."

Should smart aliens want to contact us, he warned, we should not necessarily think they will be cuddly, kind and wise, in the Spielberg genre.

"They could be like the Aztecs, just as aggressive and extremely

unpleasant," he said. "If I'm wrong, and the telephone rings, whatever you do, do not pick it up... we might not want to say hello."

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