## THE BIOPAUSE PROJECT: SCIENTIFIC BALLOON EXPERIMENTS FOR SAMPLING STRATOSPHERIC BIOAEROSOL

\*Sohsuke Ohno<sup>1</sup>, Norimune Miyake<sup>1</sup>, Ko Ishibashi<sup>1</sup>, Yuko Kawaguchi<sup>1</sup>, Osamu Okudaira<sup>1</sup>, Keisuke Maeda<sup>1</sup>, Issei Iijima<sup>2</sup>, Yuya Kakehashi<sup>2</sup>, Manabu Yamada<sup>1</sup>, Akihiko Yamagishi<sup>3</sup>, Kazuhiko Yamada<sup>2</sup>, Yusuke Takahashi<sup>4</sup>, Satoshi Nonaka<sup>2</sup>, Segawa Takahiro<sup>5</sup>, Hideyuki Fuke<sup>2</sup>, Tetsuya Yoshida<sup>2</sup>, Takafumi Matsui<sup>1</sup>

1. Chiba Institute of Technology, 2. Japan Aerospace Exploration Agency, 3. Tokyo University of Pharmacy and Life Sciences, 4. Hokkaido University, 5. University of Yamanashi

The location of "biopause", the upper boundary of the biosphere, and the biological flux across the biopause on Earth are the key to understand the universality and distribution as well as the origin and evolution of life in the universe. The most direct information to elucidate the biopause is the distribution and dynamicity of life in the middle atmosphere. We carried out a scientific project named "Biopause" using JAXA' s scientific balloons in order to grasp the dynamics of biological flux in the stratosphere. We had the third balloon experiment of the Biopause project in last year and collected aerosol particles in the stratosphere using a descending inertial impactor. The stratospheric samples were recovered successfully and analyzed using a fluorescence microscope and cultivation. In the presentation, we report the new results of the balloon experiment in this year and the initial results of the sample analysis.

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