

## Press Release

### Nagoya University's ITbM and Toyota Boshoku start new collaboration

~ Accelerating research and development on the effect of the tide generating force ~

October 17, 2018

Nagoya, Japan – The Institute of Transformative Bio-Molecules (ITbM), Nagoya University and Toyota Boshoku Corporation have announced a joint research agreement on elucidating the effect of the tide generating force on organisms. The joint research between the two organizations initiated from October 1, 2018.

The tide generating force arises by the combination of the gravitational attraction between the earth and the moon, and the centrifugal force from the rotation of the earth. This force is known to cause the rise and fall of the tide in the ocean.

Toyota Boshoku has been focusing on the relationship between the growth of plants and the tide generating force. They have conducted research on cultivation technology in synchrony with the tide generating force, where they have adjusted the temperature and light of the greenhouses according to the tidal rhythm. Their goal is to advance their research and development, and make it useful towards the society, by elucidating the effect of the tide generating force across a range of areas. On this occasion, they have entered into a research collaboration with ITbM, which is carrying out cutting-edge research on the circadian clock rhythm of animals and plants, with the hope to expand the tide generating force research even further.

Through this joint research initiative, ITbM and Toyota Boshoku will accelerate research of the tide generating force, and will contribute to the society by applying their research achievements to increasing food production and promoting health.



Mr. Osamu Kito, Executive Functional Officer of Toyota Boshoku Corporation (left) and Professor Kenichiro Itami, Director of ITbM (right)

**About WPI-ITbM** (<http://www.itbm.nagoya-u.ac.jp/>)

The Institute of Transformative Bio-Molecules (ITbM) at Nagoya University in Japan is committed to advance the integration of synthetic chemistry, plant/animal biology and theoretical science, all of which are traditionally strong fields in the university. ITbM is one of the research centers of the program initiated by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT), the World Premier International Research Center Initiative (WPI). The aim of ITbM is to develop transformative bio-molecules, innovative functional molecules capable of bringing about fundamental change to biological science and technology. Research at ITbM is carried out in a "Mix Lab" style, where international young researchers from various fields work together side-by-side in the same lab, enabling interdisciplinary interaction. Through these endeavors, ITbM will create "transformative bio-molecules" that will dramatically change the way of research in chemistry, biology and other related fields to solve urgent problems, such as environmental issues, food production and medical technology that have a significant impact on the society.