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Mechanism of molecular tissue that organizes creative activities under ever changing circumstances

Shinji Karasawa（Miyagi National College of Technology・Professor Emeritus）

[Introduction] This e examined how the systematic activity of molecules in intermolecular bonds was involved in the birth of life. The system of a molecule of intermolecular bonds is organized by a phenomenon of intermolecular cooperation, and the activities of the system are organized by the same effect. The method of controlling the tissue that appears to have existed at the stage of the birth of the organism from the tissue of the molecule is an open loop control that captures the real world intermittently described below.

[The beginning of organized behavior] Assuming that the tissue of a molecule such as a membrane formed by hydrophobic bonds floating on the surface of the water is stressed locally from the outside, and a reaction such as the release of a neurotransmitter occurs, the reaction has the after effect. It reacts impulsively and its activity affects the neighborhood by intermolecular bonds. After that, the same reaction does not occur if the surrounding situation changes. Even itself returns to the state before the reaction, the reaction will differ. It is possible to create an intermolecularly sated tissue with decoding function that reacts only to the impulse group that occurs simultaneously in a large number of impulse groups in the tissue of the molecule.

[Open-Loop-Control of tissue of intermolecular bond] The products and production facilities coexist nearby. The reactions those generated the decoder and the reactions of decoder can coexist nearby area of the membrane. When amino acids are made on the hydrophobic side of the membrane along the flow of activity, and carbohydrate molecules are synthesized on the hydrophilic side of the membrane at the same time, two filamentous polymers can be simultaneously synthesized. In doing so, the activity of the added molecule can control the activity of the membrane. Therefore, it is possible to memorize the control of activities by using the polymers which was a combination of cryptographic elements, and to re-enact the activity by using the memory.

[**Formation of tissue of molecules along the flow of impulses**] By repeating of expansion and contraction of the molecular tissue under the pressure of expansion and contraction from the outside, the tubular route expands into a network structure, and if a valve is formed in the route, the movements can be routed to circulate in one direction. When circulating tissue is formed, mass transfer becomes faster in the system. As the division of labor of the molecular tissue progresses, the action controlled by the flow of the added impulse group becomes complicated. When concurrent multiple instantaneous control routes are activated, those can be represented by one activity of the representative. The output you choose at the point of contact depends on the momentary situation. The information of control is intermittently transmitted by a group of impulses, so it is possible to create new activities by changing routes along the way. Only the impulse group that reaches the output part is transfers to the actual operation.

[Summary] The intermittent activity of life began by the molecular of the molecular tissue of the intermolecular bond, and the systematic activity evolved through the activity of the life, and it became the organization of the evolved activities. In the process of evolution, which provides the genetic mechanism based on the nucleotide sequence of nucleic acids, the tissue of molecules of intermolecular bonds had already organized the activity, and in the vicinity, water molecules were circling systematic molecular movements.