

Establishment of the Support Office for Children in the Aftermath of the 2011 Japan Earthquake

Support with developed community clinical practice know how

As a specialist of life-span developmental psychology and a view towards the mutual growth various generations in the family, workplace, and community, Professor Michiyo Kato engages in community clinical practice, including developmental consultation, counseling for parents and families, and specialized assistance for relief workers.

After the Great East Japan Earthquake, Professor Kato began support activities as the head of the Support Office for Children in the Aftermath of the 2011 Japan Earthquake, established by Graduate School of Education, Tohoku University. Long-term psychological support is provided by psychologists for 10 years, including support for single and foster parents. "It is a very difficult work. To be honest, when I was first heard about it, I was at a loss and didn't know what to do. I thought that I would have to make full use of the support theory I had worked on up to now."

For children who were orphaned in the disaster, application to national facilities and searching for foster parents was recommended. However, it turned out that most children were taken in by relatives. "Usually, a person wants to contribute to social welfare and becomes a foster parent. But, in the case of this disaster, many people became foster parents totally unprepared. The reality of raising a child will catch up to the parents in the future." From telephone counseling, it was found that some children stop going to school from the second year, and that some parents are tired of the change in circumstances and are losing confidence in their relationship with children.

Currently the support office provides free telephone counseling, home-visiting counseling, a consultation room for foster parents, assistance for relief workers, etc. According to Professor Kato, the future vision of the support office is to work with relevant organizations and to promote support by a modest methodology called "filling in the gaps" that other organizations cannot. "I think that the important thing is, how the horizontal axis of local resources and the vertical axis of 10 years will line up. What will conditions be like 10 years after this unprecedented disaster? I would like to continue to provide support by using my imagination to the full."



[Photo 1] Establishment of the Support Office for Children in the Aftermath of the 2011 Japan Earthquake Commemoration Symposium – Mid/Long-term Support Outlook for Orphaned Children" was held in November 2011. Issues, such as the current situation of Miyagi Prefecture, issues facing foster parents, and the future direction of the support office, were discussed. [Photo 2] The Support Office for Children in the Aftermath of the 2011 Japan Earthquake was established in the Educational Network Center, Graduate School of Education. It will be the base of support for the next 10 years. [Photo 3] Caring for the mental health of children who have lost important persons and belongings is an important activity by the Support Office for Children in the Aftermath of the 2011 Japan Earthquake.



[Photo 4] A poster and flyer advertising the support room. The picture of the grapes was drawn by an elementary school student living in Higashi-Matushima City for the support room and is used as the Office mascot in advertisements. [Photo 5] Special cards with the counseling hotline number were printed. These cards were passed out to the local governments, schools, relevant organizations.



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Professor Michiyo Kato

Born in Miyagi Prefecture in 1956. She graduated from Tohoku University, Graduate School of Education, and obtained a doctoral degree (Pedagogy), specializing in life-span developmental psychology and clinical psychology. She is also a clinical psychotherapist. After serving as an assistant and associate professor of Tohoku University, Graduate School of Education, Dr. Kato has served in her present post since 2011.

■ Support Office for Children in the Aftermath of the 2011 Japan Earthquake
<http://www.sed.tohoku.ac.jp/~s-children/>



Discovery of "dressed-cells" which inhibit delayed allergic reaction

What causes allergies? Allergic reactions occur when a person's immune system overreacts to a foreign antigen. Natural Killer (NK) cells are known to promote an immune response through interaction with antigen-presenting dendritic cells.

Professor Kouetsu Ogasawara discovered new cells which can control this function of NK cells.

"We discovered seven years ago that a molecular exchange between cells is possible." Professor Ogasawara says. "While carrying out a culture test on NK cells and cancer cells, we accidentally found out that NK cells had the same type of molecules as those on the surface of cancer cells."

Further studies which focused on the interaction between NK cells and dendritic cells revealed that NK cells can acquire MHC II molecules from cancer cells, and transform into new type of cells.

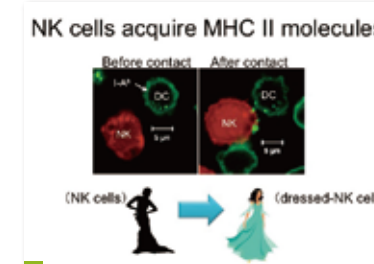
The new cells were named "dressed cells" for their transformation which vividly reminds us of changing a dress. MHC II dressed-NK-cells were shown to regulate immune responses, and inhibit delayed allergic reaction.

"NK cells have long been recognized as immune-promoting cells, but they can function as immune-regulating cells through transformation into dressed-cells. In other words, their positive or negative immune responses can be adjusted by putting on or taking off their dresses." If we can control the acquisition pathway, it is suggested that new methods to treat delayed allergic reaction can be developed.

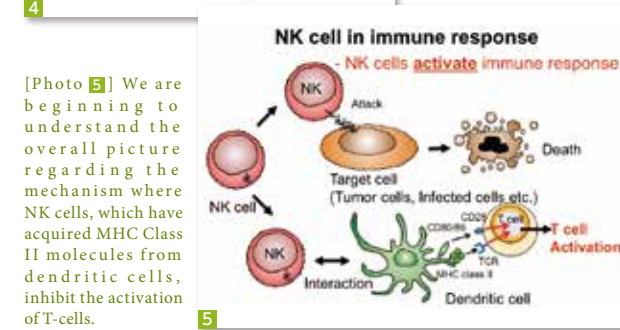
"This discovery is quite interesting, not only medically, but also for the scientific field. The expression of molecules has been strictly controlled by gene-expression regulation. However, we found that those molecules have the ability to change as a result of contact between cells. We believe that this discovery lays an important foundation for the further development of biological studies as well."



[Photo 1] Professor Ogasawara's laboratory. Research to develop new treatment for T-cell-related diseases, using newly discovered dressed-cells is now underway. [Photo 2] Discovery of new cells that inhibit delayed allergic reaction represented by contact dermatitis (such as allergy to metals, rash, drug hypersensitivity). In this picture, the moment where cells come in contact and are exchanging molecules is captured.



[Photo 4] NK cells (red) acquire MHC II-molecules (green) from dendritic cells. The cells were named "dressed-cells" for their action which bears a striking resemblance to changing a dress.



[Photo 5] We are beginning to understand the overall picture regarding the mechanism where NK cells, which have acquired MHC Class II molecules from dendritic cells, inhibit the activation of T-cells.



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Born in Akita Prefecture in 1967. He graduated from the Graduate School of Dentistry, Tohoku University, with a Ph.D degree in Dental Science, specializing in Immunology. He received the Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology, and other awards. Dr. Ogasawara has worked as Associate Professor at the Graduate School of Medicine and Faculty of Medicine, University of Tokyo, and the Director of General Research Institute, National Center for Global Health and Medicine, and has been in his current position since 2008.

<http://www.med.tohoku.ac.jp/english/org/cooperate/115/>

