

Back to basics

The new Center for Allergy and Immunology aims to give Japanese immunology a fresh perspective — and better working conditions for young scientists, says Robert Triendl.

Japan has a strong history of immunology, although to some degree the country's stolid tradition has also hampered its researchers trying to capitalize on this base. Japanese scientists have been responsible for a number of groundbreaking advances in the field during the past decade. For example, major discoveries in how the protein interleukin-6 recognizes inflammatory insults and marshalls a response originated there in the 1990s. But such successes belie the systemic lack of autonomy, especially for younger scientists; limited support for infrastructure such as animal facilities, cell and tissue repositories, and electronic databases; and a reluctance to invest in and manage large-scale technology-driven projects that involve outside collaborators or contractors.

But that could be about to change. RIKEN, the Institute of Physical and Chemical Research, is currently building the Research Center for Allergy and Immunology (RCAI) at its campus in Yokohama. The strategy behind the new centre is ambitious, says its director, Masaru Taniguchi, a molecular immunologist at Chiba University. The RCAI was founded to alleviate some of the shortcomings of Japanese university-based research in allergy and immunology, and to develop fresh approaches to common immunological problems.

"It is time to go back to a systemic view of immunology and to ask how the immune system is regulated," says Taniguchi. "With the advances in genomics or proteomics we are now in a position to recreate a systemic vision of immunology at the level of a single cell."

Proteomics will aid the discovery of molecules and will help to elucidate the more specific functions of proteins in a cell, says Taniguchi. And the fact that the RCAI will share the Yokohama campus with RIKEN's Genomic Sciences Center can only help it as it pursues its goals. In addition to genomics and proteomics, the RCAI will invest in the development of microarray platforms, bioinformatics, computational biology, new technologies for cell sorting and single-molecule analysis, and a large-scale animal facility.

The new centre will provide young investigators with a chance to concentrate solely on research, without having to deal with the administrative distractions characteristic of university life. But, like the other newly created RIKEN centres, the RCAI will not provide permanent positions — scientists will be hired on five-year, renewable contracts.

The centre has already filled most of its group leader positions. Until next summer, when the Yokohama facilities will be ready, most of the RCAI's scientists will continue to work in their present positions in academia, or move into a laboratory complex rented from Chiba University and filled with equipment for the new centre.

Finding the right recruits to fill these labs was not easy, says Taniguchi. Increased flexibility in Japanese employment would make recruiting top people for temporary posts easier, he says. "We need a rule that allows scientists in tenured position to have joint appointments — and to take a leave of absence to go and work for RIKEN for a couple of years," he adds.

This is not the first time that Taniguchi has dealt with personnel issues. During his time as dean of Chiba University's medical school, he managed to secure a more than threefold increase in the salary for technicians. "You simply don't get capable technicians for the salary of a part-time employee at a convenience store," he points out, adding that nobody had ever tried to challenge the unwritten rules on how to pay technicians. There is little doubt that at RIKEN, his previous management experience will serve him well.

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Research Center for Allergy and Immunology

♦ www.rcai.riken.go.jp/indexE.html

Japan is taking immunology back down to single-cell level, as demonstrated by this imaging set-up examining single molecules in a cell.



Masaru Taniguchi: setting new standards for Japanese immunology.

Once completed, the new Research Center for Allergy and Immunology plans to offer young researchers a distraction-free environment.

