

The Future our R&D is Creating

The Toyobo Group is advancing innovation to prepare for the future to fulfil our corporate vision.

We are pursuing innovation various directions ranging from researching clean technology for carbon neutrality and a circular economy to developing new life science products which are become increasingly important amid concern about the potential spread of infectious diseases. With the advances in digitalization, we are also exploring the promise of new technologies, such as Materials Informatics, that are opening the door to new possibilities.

Toyobo Research Center innovation in “leading-edge technology”

Research Center began operations in 1931 with the R&D of fibers and textiles and for 90 years has been expanding its research to meet changing needs for a full range of films, biotechnology, and high-performance products. The center has grown into an expansive research complex with its own production department and currently serves as the R&D base for the whole Toyobo Group.

Toyobo’s Research Center has approximately 500 employees concentrating on strengthening and integrating basic technologies that will lead to new products and technologies and pursuing innovative technologies, products, and solutions that can contribute to solving social issues. Within the center, the Corporate Research Center directs our basic research by establishing the clear relationships from the proposal stage between our research themes and the 17 SDGs for the year 2030 and beyond.



Research Center



Yasuo Ota

Managing Executive Officer,
Controlling Supervisor of Innovation Division

We are creating the Toyobo that will contribute to the society of 2030

Innovation is the source of the Group's competitiveness. Our focus in recent years has become geared more to the long term and to addressing social issues. The Mirai Value Proposition Project is bringing together members from various departments to envision Toyobo in the year 2030—what kind of business will we be engaging in, what value do we want to be providing, and who will we be providing it to. We are not waiting for someone to take the lead; every person is making their own future.

Spurring innovation through active collaboration

We are also engaging open innovation and other collaborative activities with other companies. Toyobo is at the middle of a value chain enabling smooth and quick communication both upstream and downstream. Our positioning facilitates open innovation and makes it one of our strengths. This strength gives us greater latitude to pursue our objectives. For example, we are approaching achieving carbon neutrality by using our technologies while also considering if sharing our technology with other companies could help us attain our goal.

We are also spurring open innovation with startup companies that can apply our technologies by actively providing venture capital investment in venture companies, universities, and research institutes designing advanced manufacturing technologies. One of our investment initiatives is to provide venture capital to support R&D and technological development of venture concepts with a

focus on seed ideas in the earliest stages at universities. The Toyobo Group has a successful history of building seed ideas from the R&D stage, and our investments are not focused on introducing technologies that are already developed but on technologies that we can build together.

In addition, we are rebuilding the Research Center to create an atmosphere of active and open innovation where it is easy for people to gather and generate various ideas. The institute also has systems and facilities designed to accommodate career professionals and foreign and female researchers to support the diversity that is key to innovation.

A spirit of creating new businesses with tenacity and without fear of failure

To realize the Group vision and grow sustainably, we will continue expanding our R&D in markets we expect to grow and in which the Group has competitive leads, such as high-performance films and other functional materials, life sciences, and the environmental field. In functional materials, we will accelerate research on next-generation products that can provide solutions not just from the aspect of materials but from the perspective of customer needs. In the life science field, in addition to advancing our core business in diagnostics, we are also targeting fields where we can support well-being for a vast number of people. For example, we have developed our “*kansel*” engineering technology which is quantifying and evaluating comfort levels from 1970s. We are seeking to expand this technology to encompass psychological and physiological evaluations while also broadening our product range from clothing to living spaces. In the environmental field, we will develop technologies that will help realize a carbon neutral society and circular economy, beginning with our own various clean technologies and biopolymers. We also plan to give more emphasis to R&D related to carbon capture, use and storage (CCUS), such as in carbon dioxide immobilization and storage methods.

I tell our researchers that I want them to always have the spirit of creating a new business. I also encourage them to take on challenges without fear of failure and to broaden their radar and connections inside and outside our company and overseas as well.

The slogan we follow to encourage innovation is “Try many, fail quickly.”

