CSRS has established four unique interdisciplinary projects, "Carbon", "Nitrogen", "Metallic Elements" and "Research Platforms", across the core CSRS scientific fields. Scientists from plant science, chemical biology and catalytic chemistry interact with one another to tackle challenges in science and technology essential towards innovation for a sustainable future.

Integrating the strong points of the center;
- Interdisciplinary Research
- Knowledge and Technology transfer;
- Translational Research

Outstanding core research in each specialized field and integrated knowledge obtained from interdisciplinary projects are transferred to society by collaborating with industry. More than 30 collaborative research projects have started towards realizing "open innovation" by proactively matching industry needs with research seeds from CSRS, in cooperation with the Business Development Office of RIKEN Research Cluster for Innovation and the CSRS Planning Office. Collaboration with other institutes and universities are also important means to extend center activities and encourage interaction with worldwide research communities. Beyond various individual collaborations, CSRS promotes research networks, such as consortiums and joint graduate courses with universities in Japan, as well as international collaboration. In particular, CSRS promotes inter-ministry collaboration as a way of achieving innovation.

Divisions of Biomass, Drug Discovery Platforms and Technology Platform

"Biomass" and the "Drug Discovery Platforms" were established as part of the RIKEN Research Cluster for Innovation, to accelerate knowledge exchange between RIKEN and other institutions or companies. While the "Technology Platform" provides research platforms supporting the activities of CSRS.

Fundamentals of the center;
- Core Research

RIKEN created a center collecting three of its strong fields, "Plant Science", "Chemical Biology", and "Catalytic Chemistry", to elucidate the diversity of biological functions and chemical diversity. While chemistry examines molecular structures, their reactions and phenomena at the molecular level, biology considers the overall flow of genetic information and molecular systems. By learning both sides of the coin, we endeavor to create disruptive research and technologies for the sustainable production of materials, energy and food.
Towards an environmentally friendly cycle of biological and chemical resources

Plants and microorganisms encompass a wide range of biological functions. Many valuable compounds are biologically produced by organisms in nature, and resources can produce various useful materials using chemical synthesis. As the RIKEN Center for Sustainable Resource Science, we aim to elucidate the diversity of these biological functions and chemical diversity.

We can search for substances using the artificial biosynthesis system platform. We find useful genes and then verify their functionality by constructing an artificial biosynthesis system. We caught the artificial biosynthesis system and will integrate it with the enhanced photosynthesis and nitrogen fixation, suppression of denitrification, from CO2. We can also search for substances using the artificial biosynthesis platform.

We can search for substances using the artificial biosynthesis system platform. We find useful genes and then verify their functionality by constructing an artificial biosynthesis system. We caught the artificial biosynthesis system and will integrate it with the enhanced photosynthesis and nitrogen fixation, suppression of denitrification, from CO2. We can also search for substances using the artificial biosynthesis platform.