

## Fall Welcome 2025

Hello, everyone. On behalf of our faculty and staff, I am delighted to welcome you all to our university. Today, 87 new students from 17 countries and regions, including Japan, are joining NAIST.

As a university community rich in diversity, NAIST declared in 2022 to be a "co-creative community." Our "Declaration of Co-creative Community" says:

The Co-creative Community we aspire to is a community where members strive for the creation of new value through the exchange of opinions with courtesy and empathy. We value our individual differences and pursue mutual understanding and respect while rejecting discrimination.

The entire Declaration is on our university website and also posted at the entrance of each Division building. Please make time to read it.

We are proud that you have chosen NAIST as your place for graduate study. The learning in graduate school is quite different from that in college. Although there are some lecture courses, the characteristic feature of graduate education, including that at NAIST, is research-oriented training, where you learn by working on your research projects. However, the research you will conduct at NAIST is not just "a laboratory course" to master what has already been established. You will be engaged in cutting-edge research to acquire knowledge and technologies that are new to humanity. A well-known example of such research is that of Prof. Shinya Yamanaka and his graduate students at NAIST, who successfully created iPS cells that were later recognized with a Nobel Prize.

If you haven't already done so, I invite you to visit the Large Lecture Hall in our Division of Biological Science building. By the entrance door of the lecture hall, you can read a message from Prof. Yamanaka on a brass plaque that commemorates his Nobel Prize. There he says:

In baseball, players with a batting average of 30% are considered great. But in research, a 10% success rate is excellent. In addition, the tenth successful attempt cannot usually be performed until the nine unsuccessful attempts have been completed. So, without fear of what will result, try your hardest and make mistakes.

What Prof. Yamanaka says is invaluable advice that prepares you for graduate training. In high school and college science classes, we just learn about the results, not the process. Students often believe that scientific research always follows a series of logical steps to provide a direct answer to a given question. If you began your thesis project with such a perception of research, you would be miserable and stressed out every time your experiment failed. However, if you know beforehand

that a 10% success rate is considered excellent in research, you can feel better and be more prepared for further attempts.

But "a 10% success rate is excellent" means the actual success rate might be below 10%. It could be 5%, 1%, or 0.1%. You keep trying for a day, a week, a month, or a year, and eventually you may start feeling lost and desperate. Eminent systems biologist Uri Alon referred to such a situation as "the cloud." In the cloud, you lose the sense of direction, like a pilot flying in dense fog. He says this cloud is an inherent part of research, standing between the known and the unknown. Therefore, to reach the unknown, which is a discovery, we must plunge into "the cloud".

In Hayao Miyazaki's animated fantasy movie "Castle in the Sky," Pazu and Sheeta, in a glider, are blown into the clouds of a lightning storm. They suddenly come out of the clouds and arrive in a calm blue sky, discovering the legendary flying castle Laputa. You may wonder how you can navigate yourself through the blinding cloud that hinders you from making a discovery. Is a favorable wind the only way to break through the cloud, as happened to Pazu and Sheeta? Professor Alon suggests that solidarity and support can help to get out of the cloud.

That is why you will join a laboratory at NAIST. At the forefront of scientific and technological research, you try to discover or achieve something novel, something that has not been accomplished by anybody else, including your professors. So, even your professors cannot tell you precisely what to discover or how to achieve your research goals. However, they are experienced copilots who are willing to fly through "the cloud" with you. Our faculty members are world-class researchers, and they are looking forward to collaborating with you.

With the help of your professors and colleagues in the laboratory, you try, try, and try to go through the turbulent stormy cloud. Suddenly, you come to a calm, blue sky, where you catch your first glimpse of an unexpected discovery. Such an experience in graduate study will equip you with abilities and skills that expand your potential in diverse contexts of your life, as concisely stated in our school motto: Outgrow your limits.

A number of exciting laboratories are just part of the remarkable environment of our campus that allows you to "Outgrow your limits." I encourage you to make the most of your studies at NAIST, taking advantage of this unique environment where you can interact with and learn from our diverse academic community, as well as our local and international collaborators.

Enjoy "the cloud" and outgrow your limits!