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Research News



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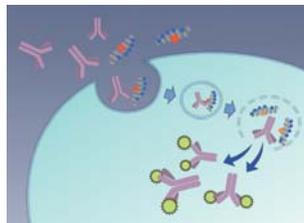
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On the cover
An *ukiyo-e*-like depiction of the five participants in this issue's faculty roundtable on the humanities, together with the University's main Yoshida campus, famous buildings associated with studies of the humanities and social sciences, and the surrounding scenery of Kyoto. (Trais/Fujiwara)

Humanities 101: A Kyoto approach to history, society, and the study of humanity

Kyoto, the cultural heart of Japan, served as the seat of the nation's political and religious life for many centuries. Kyoto University — founded following Japan's reopening to the world in the late 19th Century — grew out of this environment, imbuing its academic life with deep currents of intellectualism and social awareness. These traditions continue to inspire the institution's scholars today, and to gain some insight into the breadth and depth of inquiry being undertaken here, we spoke to researchers from a wide range of disciplines — in the main room looking out on the garden of *Seifusô*, the university's seminar and reception house — about the rich melding of minds that takes place constantly on this campus.

Introductions

Kosugi: Thank you all for coming. I'm **Yasushi Kosugi** from the Graduate School of Asian and African Area Studies, and I am today's moderator.

My graduate program may be the University's least known grad school. [laughs] Now, normally when you talk about area studies, people have the image of a social science-based approach. However, here at Kyoto, we integrate the humanities with the natural sciences, in a way that's rare anywhere in the world. We hold many lecturers in different disciplines, and for example conduct research with soil

scientists to better understand agriculture practices. Then there is interdisciplinary research with nanotech and medicine specialists. We're even involved in the space program here. My own work delves into leading edge **Islamic political thought**; the current reconstruction of **Islamic law** and social systems; international organizations of the **Islamic world**; and the spread of **Islamic economics**.

Kamm: That's amazing. And isn't our president a gorilla researcher? He must have been involved in the program as well.

Backstage at the lab: Humanities 101

Kosugi: Yes, exactly! Primate researchers are thriving in our African Area Studies department. It is a very — you could say — ‘Kyoto University style’ of integrating the humanities and sciences. And now we are strongly pushing the international quality of the departments as well. In Japan, when you talk about “international studies”, people primarily focus on the West at first. We study these cultures too, but only when you involve Asia and Africa does the outlook become truly global. I think this idea comes from the academic focus of post-War Japan. America was the leading player in the period, and therefore a strong tendency to see the world through their lens developed. But Japan then began to focus on things like international cooperation and world peace. That’s what shifted Japan’s academic focus into Southeast Asia and Africa. Our department is now and will continue to be a global hub for academics.

Inagaki: Thank you Kosugi-san. I am **Kyoko Inagaki** of the Faculty and Graduate School of Education, where I am the Dean and Head of Research.

I believe the Faculty of Education is the University’s smallest. There are only about 60 freshmen. Compared to

other departments, the entire faculty could fill one course. So it is very tightly knit. It originally branched off from the Educational Methods section of the Department of Philosophy in the Faculty of Letters. But even though we’re small, we have lecturers from many fields including History of Philosophy, Psychology, Sociology, and Public Administration. That diversity is reflected in our research.

My own field of **sociology of education** often causes people to ask: “What is that?” I get this so often that I sometimes end up wondering myself! But to put it simply, we study issues such as: “how has education shaped the structure of Japanese society and societal relations?”; or “does education underpin the structure of Japanese society and its social environment?”

For example, in the 1960s education had an image of being an exceptionally normative field, whereby people were trying to figure out what an educational ‘ideal’ should look like, and how we should go about raising ‘good kids’. In sociology of education, we want to know what kind of functions these ideals play on the ground and in society. The ‘60s and ‘70s were an age of excessive academic meritocracy, and

discussion about academic background and disparities was, if anything, forbidden or not talked of openly.

A major concern of mine is the genealogy of education: how it developed in pre- and post-War Japan. A widely-held view is that the education system was built for boys, centered on the pre-War model. But there was another culture in Japan that was different, and has come down uninterrupted from the past, but not studied thoroughly: **education for girls**. It was built with girls’ relationships in mind.

Kosugi: That’s very interesting! What did you find?

Inagaki: A particular difference is that such education focused on etiquette, manners, and traditions. So instead of contributing to the overall ‘culture’ of Japan, girls’ education sustained the ‘civilization’ of Japan. There is much more to study, and I hope to eventually grasp the genealogical roots of these forms of education.

Another topic I am following is the relationship between **master and pupil**, or **shitei-kankei**. Today, it sounds almost archaic, describing something that has ceased to exist. I initially got



interested in it through reading autobiographies, such as in the *Nikkei Shimbun* monthly column “My CV” —or *Watashi no Rirekisho*, which has been in print since 1956 and is a great source of information on the histories and careers of famous people. In it, prominent figures in academia, the arts, business and so on write and reflect on their careers. I focus on what each has to say about the relationship between master and pupil. As quantifiable data, I calculate the number of lines, then break it down based on occupation, alma mater, and other factors. It’s quite surprising how differently people in various fields express themselves when talking about these relationships. I think this whole master-pupil relationship was going strong up until about the 1980s. By looking at the mechanisms involved, I think I can get some kind of insight into education and the structure of Japanese society.

Kosugi: Wow— I have lots of questions, but for now let’s continue to Dr Abe.

Abe: I am **Hiroshi Abe** of the Graduate School of Human and Environmental Studies, specializing in Philosophy. I concentrate on **Western philosophy**, and in particular **German philosophy**. I’m especially interested in 20th Century German philosophy and the work of Martin Heidegger and Hans Jonas. How these connect with environmental studies is that Jonas was a known pioneer in environmental ethics. Broken down by topic I work on: **ontology**, **logic**, and **environmental philosophy**.

Ontology is related to metaphysics. In nature, we have various methods to identify things. The verb ‘to be’ comes into question as an issue, as there are so many ways it can be used. In Japanese we use the words *iru* for animated beings and *aru* for inanimate objects. But usage also changes based on context, and it becomes problematic for ontology and

metaphysics. The issue of how we identify ‘being’ is something I have been thinking about for some time.

The second issue — logic — probably has the deepest connection with Kyoto University. Since I teach education under the common curriculum, I’ve thought about it partly from an educator’s perspective, and I’m actually doing formal logic in a contemporary style in a somewhat half-mathematical form. However, my interest in logic is also motivated by the **Kyoto School**, or **Kyôto Gakuha**, beginning with **Kitaro Nishida**. He was the focus of that first generation of thinkers concerning themselves with the logic we deal with every day. He left the work “Concerning My Logic” unfinished at his death. I’m interested in the possibility of an alternative, non-Western logic that Nishida and these thinkers were discussing, and if it would collide with the standard logic of our times.

In environmental philosophy, Hans Jonas is the focus of my research, where I’m thinking about ‘how-to’ questions along the lines of: how is humanity to be preserved so as to survive into the future? The first question, when you get down to it, is whether or not humanity is worth preserving. Would it not be better if we became extinct? Naturally, it sounds like an extreme idea, but the question is: why should humanity survive for the sake of survival? If we are indeed practically to survive, how can we theoretically justify our survival?

This is why I’m interested in positing the ‘why’ before the ‘how’. In this regard, there have been a number of publications on “future-oriented responsibility”, such as our responsibility for future generations — which has to be thought of under environmental philosophy. However, I think that in fact a past-oriented responsibility toward the generations gone before plays a great role in the future-oriented responsibility. Let’s take ancestor worship in Japan and other



cultures as an example. It’s interesting to me that this traditional thinking links generations yet to come to those who have gone before, in a kind of mutual dependence. Because, according to my interpretation of this view, today’s people are *responsible* to past generations, and also *responsible* for future people. So, I see that the reason why we’re no longer able to think about our descendants is that we’ve forgotten about our ancestors. That’s where I’m coming from recently.

Kosugi: Thank you very much Dr Abe. Now Dr Yamauchi, if you will.

Yamauchi: My name is **Yutaka Yamauchi**. I originally graduated from the Faculty of Engineering’s Department of Information Science. I was in computer science through my Master’s, then switching to **management** for my PhD in the United States. I worked over there for a while, but came back to this university about seven years ago. I joined Graduate School of Management. It’s still a small school with about twenty faculty members or so, but has been going strong for ten years. We have something called the Service & Hospitality Program, originally set up when I came back to Japan.

I conduct research on the **science of service**. From about 2004, service started getting a lot of attention in academia. The service sector is a major component of any country’s economy. It makes up 70% of GDP in Japan, and 80% in France. Given this situation, the Japanese education ministry helped establish the Service Value Creation

Backstage at the lab: Humanities 101



Yasushi Kosugi (moderator)
Professor at the Graduate School of Asian and African Area Studies (Islamic studies, Middle East area studies, Comparative politics and international politics)

Kosugi arrived at Kyoto University nearly 20 years ago, soon after the founding of the Center for African Area Studies. He analyzes the realities of the Islamic revival movement so as to understand the dynamism of the contemporary Islamic world. Although Islamic Studies was not originally an academic discipline at Kyoto University, Kosugi began his work here by conducting field surveys of texts and other materials, and thanks to his hard work, the university now possesses the largest collection of Arabic and Urdu writings in Japan.

“Arabic is written from right to left, so it’s a bit difficult for Japanese to understand. In Japanese, everything hinges on the end the sentence, where the verbs are. Well in Arabic, the verb comes at the beginning, so it requires a different way of thinking! —And therein lies its appeal.”

Program. After joining the faculty, I started by looking around for an approach. That’s when I got the idea of filming in a sushi bar. I set up six or seven video cameras and was able to capture a huge amount in only two

hours.

Now why a sushi bar? Conventional service theory is that the aim is to make the customer happy: to increase the level of customer satisfaction, but you don’t see that at a sushi bar, where service is difficult to comprehend! Often there’s no menu, you don’t know how much you have to pay until after you eat, and the shop is intimidating. People get nervous when they go there. It goes against most conventions of ‘good service’. I am deciphering this type of service situation through my research, and with enough data we should be able to reconstruct the basic theory of service. My initial thesis is that service can be characterized as a struggle. Both customer and server are involved in creating an environment for good service.

Finally, under the Leading Graduate Schools program, I’ve been involved with the idea for a design school here for the last six years or so, and thinking about service within that context.

Service design has taken off as a concept in Europe, where the designer provides a service and you are the customer, so I want to think more about design in that relationship as well.

Kosugi: And lastly, we have Dr Kamm.

Kamm: Hello everybody, I am **Björn-Ole Kamm**, a senior lecturer at the Graduate School of Letters. A new major in **cultural studies** just began at Kyoto University last month, and I’m working as the coordinator of this international Joint Degree Master of Arts Program in Transcultural Studies, a collaboration between Kyoto University and Heidelberg University, Germany. This is Japan’s first joint-degree Master’s course in the humanities. In it, students study here for half a year, then at the partner school for a year, then back here for another half year to write a single Master’s thesis in English. They then receive a single degree, awarded jointly by both schools. I’ve been working here since March 2015, and from that point until we got approval, I was doing the groundwork to set up the course, and negotiating together with my colleagues between the education ministry and Heidelberg University.

Transcultural studies is an interdisciplinary subject, spanning Buddhist studies, history of thought, cultural economics, visual media, and sociology. The research generally focuses on the dynamics of cultural exchange between Asia and Europe. The basic stance of Transcultural Studies is that a culture is never confined to one race, one language, or one space cut off from others by borders. Culture is the outcome of a whole range of different people’s actions and ideas. ‘Trans’ here is the same as in ‘trans-Pacific’ and ‘trans-Atlantic’. Our focus isn’t exactly on culture as such, but rather on the points of connection between cultures, the encounters and flows between them.



Kosugi: So almost like what we are doing now.

Kamm: Yes, exactly! I've been teaching transcultural theory since 2013, but my original major was **Japan studies** and **media studies**. I study communication on the internet, cultural interactions between Japan and Germany, and stereotypes concerning media use in Japanese society. Now I'm mainly thinking about methodology, and about how to get my findings out to the public. I'm doing quite a lot of different things: research on social recluses, or *hikikomori*, and media stereotypes of them, as well as interviewing people who've had this experience. Together with former recluses I've designed an experiential role-playing game based on their experiences. I've conducted this educational game seven times, in Japan and overseas, including twice here on the Yoshida Campus. Every time the atmosphere was fantastic. I'm still going through the results, but I can say that many participants could afterwards identify with the dilemma of *hikikomori*.

Masters and Pupils

Kosugi: Dr Inagaki, you were saying that the master-pupil dynamic only

lasted until the 1980s?

Inagaki: It hasn't completely died out, but it has certainly atrophied. I'm inclined to think that some organizations have taken on what you might call a 'Western' model — implementing a kind of master-pupil relationship — where it has remained. So while we can still see it, the institution has been fading. In class, when I will talk about the master-pupil relationship, I see that it doesn't resonate with students. To be honest, I have had very little experience with it myself.

Kosugi: Is this atrophy specific to Japan? There are many types of teachers in different industries. If not in formal education, can you find it elsewhere? I cover West Asia and I get the impression that it still exists in that region.

Inagaki: There is certainly the master-pupil relationship outside of Japan as well, but the properties and functions are different and unique to each culture. So I get the feeling that Japan has its unique qualities, but I can't yet make general comparisons.

Kosugi: This gets me thinking about the philosopher Nishida's courses and the relationship he had with his students. The culture and bond between the



master and pupil was strong here during his time. Nishida's pupils were as close as brothers. In fact, we have the terms *otôto-deshi* and *ani-deshi* — younger brother pupil and older brother pupil. But I suppose that is fading away as well. Dr Abe, what is the view from your department?

Abe: Back in the day, it's true that Nishida, along with other first generation teachers in post-War Kyoto University, had strong bonds between master and pupil. One key factor was the proximity of the school to the



Kyoko Inagaki

Dean, Head of Research, and Professor at the Graduate School of Education (Sociology of education, Historical sociology of student culture, Sociology of culture)

Inagaki's research focuses on the question: How has education shaped the structure of Japanese societal relations and culture?

Looking back at the history of education in Japan, Inagaki probes its 'genealogy'. One such focus is the difference between the development of boys' and girls' training.

She also analyzes the history and relationships between masters and pupils, or *shitei-kankei*, in Japan. Through autobiographies and personal profiles of renowned individuals, she sees dramatic differences between people of varying fields, whether it be in the performing arts, business, or academics.

"Sociology of Education studies many academic disciplines including sociology, history, economics, philosophy, and of course education. By taking interdisciplinary approaches to answer our research questions, we push the boundaries of the respective fields of academia. Our department may be small, but we are rich in our range of our methodologies."

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professor's residence. Back then everyone lived relatively close to campus. Students could drop by the professor's house at any time, which you can pick up from the pupils' writings. You could call them 'pupils', or even 'disciples' or 'apprentices' in a traditional sense. These interactions were strong even before Nishida. They would have get-togethers once a month, and many students would attend to talk and discuss. However, that didn't continue. One reason is that professors started living further away

from the school. The environment of a master-pupil relationship that you see in literature such as Natsume Sôseki's *Kokoro* does not exist anymore. Even I live outside of Kyoto's city limits.

Inagaki: In the context of Sôseki's *Kokoro* or Nishida's career at the university and the evolution of the Kyoto School, the master-pupil relationship appears to have been very strong, as reflected by the many references in the writings of students and faculty in the humanities here. Lateral networks were strong too — the connections between pupils. Kyoto University's numbers actually outpace that of University of Tokyo student networks, which demonstrates the strength of this relationship here. Looking at their writings, this activity appears to have peaked around the 1970s.

And while I've found that one-on-one master-pupil relationships are universal, strong pupil-to-pupil relationships are unique to Japan. What's more, there was a distinctive hierarchy among them. All of Nishida and Sôseki's pupils each thought of themselves as their professor's true protégés. It built a sense of camaraderie, respect, and competitiveness. And with those lines

drawn, newer pupils would strive to perform as well or better than their 'brothers'. This had both good and bad sides to it.

Kosugi: There is really a familial sense among pupils. It is deeply engrained in our culture. I find that when students from overseas first arrive in Japan, one of the first things they learn is the idea of *sempai-kôhai* — upper-classmen and junior-classmen — and that you can rely on sempai for help.

Dr Yamauchi, what have you found in the service industry?

Yamauchi: Master-pupil relationships are strong in the services, albeit undergoing change. I don't think today's young students hold their sempai in as much reverence as before. You hear about craftspeople taking on apprentices even now, but all over the world that is diminishing. In Kyoto I spoke with an artisan who had learned his trade the old way, as an apprentice. But when I asked "who was your master?" he said "you wouldn't know him." In the past, a craft worker would be anonymous, but now they are becoming artists and putting their names out on their works. I see a transition from craft to art contributing to this.

Sushi bars have apprenticeships as



Bundesregierung / Henning Schacht

Hiroshi Abe

Professor at the Graduate School of Human and Environmental Studies (Ontology, History of metaphysics, Environmental philosophy, the *Kyoto School*)

Abe studies Western and German philosophy, with a focus on ontology, logic, and environmental philosophy.

Ontology — the nature of 'being' — has been a subject of Abe's research for some time. He also examines logic with relation to the history of ontology, and based on the works of Kitaro Nishida and the *Kyoto School*, looks into the alternative, non-Western logic that has enticed generations of previous thinkers. Other foci are environmental philosophy, and questions on the survival of humanity into the future. But before posing the 'how', he thinks of the 'why'.

"Extreme questions such as 'Is humanity worth preserving?' are fascinating in their own right, but they are also necessary to consider if we are actually going to survive."

In 2017 Abe was awarded the Philipp Franz von Siebold Prize by the President of Germany — the most highly-regarded German award for a Japanese scholar — for his outstanding achievements in the field of environmental philosophy, including bridging Eastern and Western perspectives.



Yutaka Yamauchi

Associate Professor at the Graduate School of Management (Organization theory, Ethnography, Ethnomethodology)

Yamauchi studies 'service science' in the Service and Hospitality Program at the Graduate School of Management. The idea for this area of inquiry came about around 2004, when IBM began referring to 'Service Science', a natural reflection of the service industry's rapid growth as a share of GDP worldwide.

Yamauchi was the first to bring this analysis to the sushi bar, a quintessentially Japanese institution that does not follow traditional service models. Fascinated with the trade's unique brand of 'unfriendly' service, he has analyzed the interactions between chef and customer, among many other areas combining traditional notions with modern society.

"Conventional thought on service tells us that there is a clear division between service provider and customer. But the fact is, service is something that both the service provider and the customer create together. I'm taking this point into consideration in my research, and I aim to reconstruct the theory of service with it."

well. And recently, I've started looking at bars, be-cause they have a similar system.

Kamm: Really? Even bartenders take on apprentices?

Yamauchi: Yes, ambitious bartenders receive training in places like Ginza, Tokyo, for ten years. What I find absolutely fascinating is that while this master-pupil interaction is romanticized in academic literature, if you talk to actual apprentices, most of them really hate their masters. They respect them of course, but they all say they don't want to end up being like their masters. They want to become independent and make something in a completely different style. However, when they themselves become masters and take on apprentices, they don't treat them any better.

Inagaki: This reminds me of other aspects of Japanese culture, like compassion. All of these come with their inverse. Compassion can slide into favoritism. Expressing understanding for someone's feelings can degenerate into mere flattery. A fine balance needs to be struck in a relationship; it's something unstable, not completely structured — which is why wild swings from love to hate happen in an instant. And this also happens between masters and pupils. The pupil will be constantly aware that

the relationship is something to be transcended, lest they be forever an imitator. There is great incentive in respecting the master, but the pupil can't help feeling hatred. The masters, meanwhile, want their dear apprentices to stay on forever, even while knowing that if they don't let them go, they haven't done their job as a master. That's why when pupils starts to hate their masters, it's a sign that they've become good at what they do.

Kosugi: Dr Yamauchi, do you think of us educators as being in the service industry?

Yamauchi: The whole world is moving to that direction, treating education as a service, which is an economic exchange. Students submitting lecture evaluations tell us to "give us a bit more of that," or "how about more classes in English?" and so forth. We need to listen to these customer voices. So in a sense yes. But I don't think we should view ourselves in that way. Again, I view service as the process in which participants come to acquire new selves. In services, they are first negated and struggle to prove themselves. Service is not about unilaterally pleasing customers. We should take it upon ourselves to provide a more Kyoto University-centered education. Something that is more in tune with the

school spirit.

Inagaki: That's the dilemma isn't it? While being aware of the service aspect, the whole thing has a tendency to swell out of proportion, so it's easier to just lump everything under 'service' in a broad sense. The thing is, the master-pupil relationship may have a role to play in education. But 'service' in that form is somehow fundamentally different from Dr Yamauchi's service, because when teaching a class the emphasis is on learning. And learning as service isn't really learning, but just being guided to learn.

Yamauchi: Yes, indeed. The basic



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Björn-Ole Kamm

Senior Lecturer at the Graduate School of Letters (Cultural ordering, Cyber-ethnography, Role-playing, Uses and gratifications of Japanese popular media)

Transcultural studies — an interdisciplinary subject — spans Buddhist studies, History of thought, Cultural economics, and Visual media and Sociology. Kamm, who came to Kyoto by way of Heidelberg University, looks into subjects such as communication on the internet; cultural interactions between Japan and Germany; and media stereotypes in Japanese society.

One such area he examines is social recluses, or *hikikomori*. Kamm analyzes media stereotypes of hikikomori and finds ways to promote his work outside of academia. One such activity is an experiential game based on the experiences of these shut-ins.

“The basic tenant of transcultural studies is that a particular culture is never confined to one ethnicity, language, or space cut off from others by borders. Rather, it is the opposite — the result of a range of different people’s actions and ideas interacting with each other.”

Kamm also coordinates KyotoU’s new Joint Degree Master of Arts Program in Transcultural Studies in collaboration with Heidelberg University. It is Japan’s first joint degree program in the humanities.

theory of service involves value co-creation. Customers and service providers participate in the service and jointly co-produce services. If we accept this, customers are implicated in the service; they cannot keep a safe distance from it. It matters who they are. When students learn in the classroom, they do not simply accept information. They need to present who they are. Learning unfolds through this dialectic process. This is true for any service as long as it is value

co-creation. When you analyze service objectively, you notice that the more expensive the service is, the less service you receive, just as in sushi bars. The service should be more difficult to understand, and making it easy for students is not the answer.

Kosugi: Dr Kamm, what comparative perspective do you see between Germany and Japan?

Kamm: I can only talk from personal experience, but I find it hard to say whether such relationships exist either in Germany or in Kyoto in the organizational sense. But certainly, you have students who you’ve taught who have moved on to other universities and become lecturers there, and the relationship still continues thereafter. They may choose the same research themes, or we may collaborate. So, the network is still there and very beneficial. We have students who were taught in Kyoto who are now over in France and working as lecturers there. And this helps us connect with different world-renowned universities. That kind of thing certainly does happen a lot.

Kosugi: I was recently at a conference in Malaysia, where there is a Kyoto University alumni chapter called

‘MyKyoto’ with about 300 members. I was really impressed with their network. Looking at our university today, I often see that students from overseas are the ones who are the closest with their professors. That partially stems from being in a foreign land and have trouble with the language, and so the professors are happy to help them. This forms a good bond. Japanese students only have to worry about their work and research. I think that makes foreign students strong proponents for networking, and for engagement in a kind of traditional master-pupil relationship.

Kamm: Speaking of foreign students, many of them actually come to Japan wanting a *sempai* or *kôhai* during their time here. One reason is that they have seen this in anime and other popular Japanese media. They almost have an aspiration to call somebody a *sempai* —or to be called one.

Abe: That is very interesting because I have seen that dynamic being deconstructed. I once heard that lecturers in the Faculty of Science, for example, do not address anybody as *sensei*, not even eminent senior professors. The aim is to establish an un-hierarchical system, if you will.



Everyone is a scholar. The students may be beginners, but they are scholars too. To me, this approach to establish a level playing field is simultaneously ‘competitive’ and ‘co-creative’. It generates a sense of camaraderie. Eliminating the hierarchy and having everyone stand on the same level is quite unorthodox in Japan, but also very typical of Kyoto University. And hearing what you say about foreign students, the dynamic seems to be more fluid than I realized.

Kamm: Perhaps it is more about the label and less about the dynamics. Modern students do want a relationship based on mutual respect. They may still be master and pupil — or *sempai* and *kôhai* — but knowing that each one’s work and ideas are respected is very beneficial to the students’ work mentality and feeling of motivation.

Round about Kyoto

Kosugi: We’re surrounded by the ambiance of Kyoto while doing our research here. What are the positive aspects?

Inagaki: I’ve been here since I was a student. Just for two years, though, I was in Tokyo, and there I was struck that everyone had to catch the last train home, around midnight. And so everyone had to leave, even in the middle of a very good debate or discussion. Here we’d all go out just off campus for what we called a “Hyakumanben chat”. We’d tell each other, “we’ll just go out for a bit,” and every single time we’d end up drinking and talking until morning, even with people from completely different fields. I’d listen to people talk, and then write it down in my notebook. By morning I’d be brimming with fresh ideas. You can’t find that in Tokyo.

I think that is a factor that has contributed to Kyoto’s reputation and atmosphere of intellectual and academic freedom. Students and

professors have the freedom to pursue ideas or probe the minds of people outside their disciplines and gain different perspectives or new ideas.

Kosugi: It’s the same when we have conferences. If they happen in Tokyo, everyone’s worried about catching the last train. But when people come to Kyoto, it’s just a question about people getting back to their hotels. So after the academic proceedings are done, people are free to hang around afterwards without worrying about the time. You might go to two or three places in one night.

Abe: I have been here since my undergrad days at the Faculty of Letters, so I have always thought that it goes without saying to drink and debate until the morning. And even if you generally end up forgetting much of what you said, you come away with at least the feeling that you can carry an argument, and so I went through college and graduate school in this



milieu. As a student you find a place — or places — which are cheap and close to the school and just talk. That is the charm of Kyoto, and studying in this city. Even now, I still go out on occasion and enjoy the same kind of thing.

—The conversation continues online!
Hear more about life, culture, and traditions in Kyoto exclusively at:
kyoto-u.ac.jp/cutting-edge

KyotoU achieves DNU status

In June 2017, Kyoto university was one of the first three national universities — together with Tokyo and Tohoku — to achieve ‘Designated National University’ status, a new initiative of the education ministry MEXT to reform university management, attract top-tier faculty, and lead the nation’s efforts in higher education and scientific achievement. In July, President Juichi Yamagiwa (right) received an official certificate of the designation from the MEXT minister.

One pillar of the university’s proposal is the promotion of globally-oriented studies of the humanities. In an era driven by achievements in technology development and the natural sciences, understanding humanity’s role and future on the planet is even more important than ever. Situated in Japan’s ancient capital, Kyoto University is uniquely positioned to lend the heritage of the city’s culture and traditions to this urgent global discourse.



Special delivery: macromolecules via spider's 'bite'

Our cells are rich in proteins which are potential targets for therapy. But study of these proteins' behavior, using externally delivered biomacromolecules, has often been stymied by the difficulty of gaining access to the interiors of living cells.

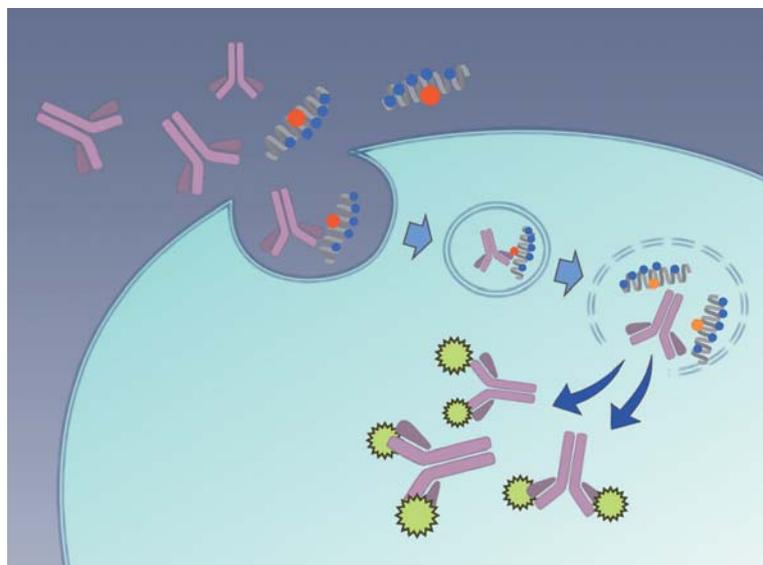
Now scientists at Kyoto University have used a reengineered spider venom peptide to deliver biomacromolecules – such as antibodies — into cells. Their strategy, published in *Nature Chemistry*, not only allows researchers to track the antibodies visually, but also makes it possible for the antibodies to interact with target proteins, modulating

their functions.

“Efficient labeling of intracellular proteins with antibodies allows us to dramatically improve our understanding of their behavior and significance,” explains first author Misao Akishiba. “Cells can take in antibodies through membrane-bound vesicles called ‘endosomes’. But normally once inside these endosomes, the antibodies have trouble escaping.”

The researchers found that a simple redesign of spider venom peptide ‘M-lycotoxin’ enables the efficient release of antibodies from their endosome cages.

“We took M-lycotoxin and replaced a leucine residue



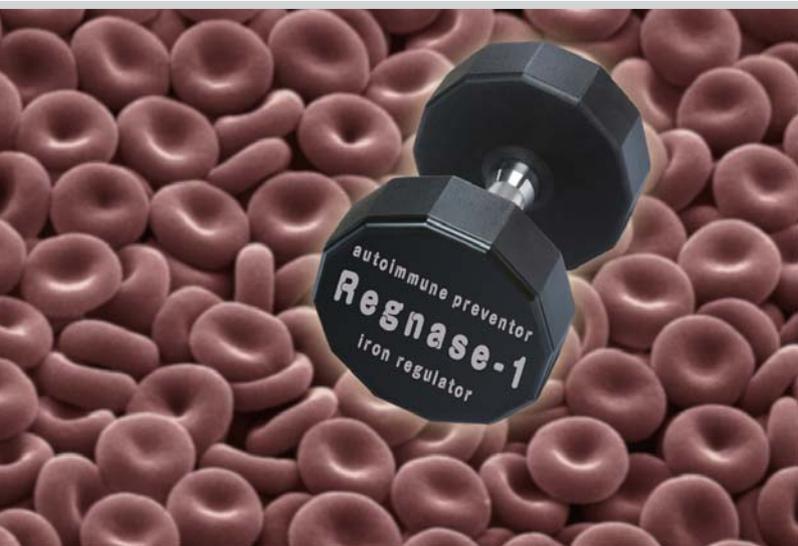
with glutamic acid, which we then called ‘L17E;’” continues Akishiba. “When L17E enters the cell, it specifically interacts with endosome membranes, breaking them down and releasing the antibodies.”

The research team then showed that functional antibodies, such as those involved in suppressing gene expression, could be delivered as well.

“This will benefit not only basic science, but also the

development of new treatments and drugs,” concludes team leader Shiroh Futaki. “Moreover, this tool could potentially be used to transport other bioactive macromolecules — and even nanoparticles — into cells.”

As a next step, the researchers hope to improve the efficiency of macromolecule uptake by endosomes, thereby increasing the amount of cargo that can be transported. ■



Cells pumping iron to prevent anemia

such as *hemochromatosis*.

The uptake and metabolism of iron in the body is one of the most tightly-controlled systems in mammals. Iron ‘regulation’ occurs at multiple levels, from controlling gene expression to degrees of protein synthesis, but some key factors have yet to be uncovered.

As described in *Cell Reports*, Kyoto University

researchers have now identified a specific gene — initially known to prevent autoimmune diseases — as a key regulator in iron uptake.

“We found previously that when mice lack the gene *Regnase-1* they suffer from severe autoimmune diseases and anemia,” explains first author Masanori Yoshinaga.

“At first, we assumed that anemia was a secondary

Maintaining a good balance of iron in the body is necessary for

health: too little can lead to anemia, but too much can cause debilitating disorders

Black hole pair born inside a dying star?

Far from earth, two black holes orbit around each other propagating waves that bend time and space.

The existence of such waves — gravitational waves — was first predicted by Albert Einstein over a century ago on the basis of his theory of general relativity. And as always: Einstein was right.

But it took until 2015 for the Laser Interferometer Gravitational-Wave Observatory to detect gravitational waves for the first time: findings which earned the LIGO team the Nobel Prize in physics two years later.

In addition to the shockwave this discovery sent across the scientific community, it also gave

researchers the new field of *gravitational wave astronomy*. But as with many discoveries, for every mystery solved, new questions have arisen.

One such new puzzle: how did those gravitational wave-inducing black holes originate?

Writing in the journal *Physical Review Letters*, Joseph Fedrow of Kyoto University's Yukawa Institute for Theoretical Physics — in collaboration with the International Research Unit for Advanced Future Studies — has determined what gravitational waves might look like if two black holes formed inside a massive, collapsing star.

"Although gravitational waves have allowed us to directly detect black holes for the first time, we still

don't know the exact origins of these particular black holes," explains Fedrow.

"One idea is that these black holes formed during dynamical fragmentation of the inner core of a dying star undergoing gravitational collapse." This, according to Fedrow, could have resulted in two of the fragments becoming black holes and orbiting around each other in the remains of the stellar environment.

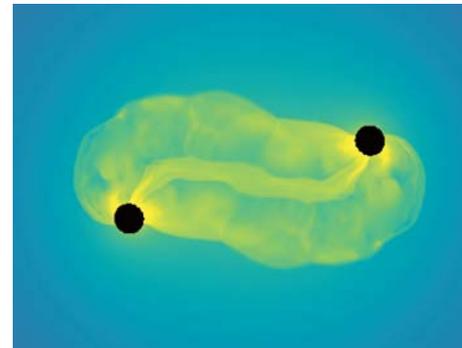
To test this proposal, the team used supercomputers and the tools of numerical relativity to create a model of two black holes in such surroundings. And after many long hours of computation, the output was compared against LIGO's observational data.

"Our results were measurably different," continues Fedrow, "showing that if black holes formed in a high-density, stellar environment, then the time it takes for them to merge

shortens. If the density is lowered to levels more similar to vacuum, then the resulting gravitational waves match those of the event observed."

In addition to shedding light on the dynamics of binary black holes, these results reaffirm that the first waves detected by LIGO came from black holes in an empty region of space.

"In this exciting, new era of gravitational wave astronomy, we don't know what we'll find, or where it will lead us," concludes Fedrow. "But our work here will help to illuminate untrodden paths, and shine a light upon the darkest of objects in the universe." ■



effect, but after detailed analysis we found that the two symptoms develop independently."

Continued study of mice with a Regnase-1 mutation revealed a functional defect in the principle site for iron absorption in the body, the *duodenum*, which is the first section of the small intestine, coming directly after the stomach.

"The next step was to find the role of Regnase-1 in iron-uptake maintenance. We started by looking at the most important iron-uptake gene, Transferrin Receptor 1, or

TfR1," continues Yoshinaga.

"Our results showed that Regnase-1 degrades the mRNA of TfR1, thereby inhibiting the synthesis of the TfR1 protein, and additionally that it likely regulates other important iron-controlling genes."

"Further analysis of Regnase-1 in iron-related homeostasis," concludes team leader Osamu Takeuchi, "may provide insight into the mechanisms causing anemia and other iron-related disorders, perhaps eventually leading to new methods of treatment." ■

How am I feeling? Ask my house

Someday a health checkup may be as easy as switching on the living room light.

In early 2016, researchers from Kyoto University's Center of Innovation and Panasonic Corporation developed a radar-based device that could instantaneously and accurately measure the body's vital signals — and now

they've made it even better. (see *2016 Autumn*, p13)

The sensor combined a radar with signal analysis algorithms to measure how the body moves as the heart beats. Body movements vary considerably, so the software filters isolate just the heart's minute motions.

"Measuring respiration and heart rate — without attaching cumbersome wires

Cutting edge

to the body — will greatly benefit modern medicine and home healthcare,” explains Toru Sato, lead researcher and Kyoto University professor of communications and computer engineering.

“Moreover, it will reduce stress by not subjecting the individual to a feeling of being monitored.”

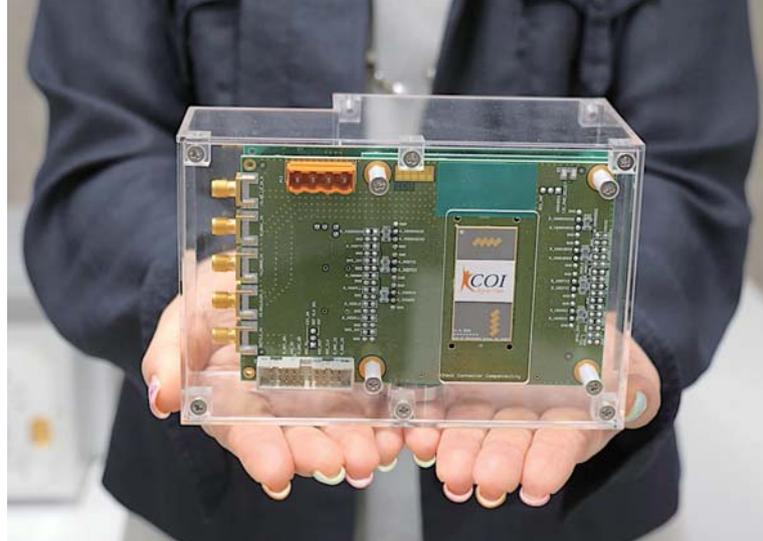
While the original technology showed promise, there was a major problem: the prototype was the size of a microwave oven. To improve prospects for implementation, the group shifted their focus toward refining the device.

“After extensive testing we

achieved great improvements,” continues Sato. “The device now utilizes the 79 GHz frequency band, instead of the previous 60 GHz. We also incorporated CMOS semiconductors. As a result, range and resolution improved, and it’s now only about one tenth the size — as big as a smoke detector.”

Moreover, because of the new frequency band, the sensor can now measure the heart rates of multiple individuals in the same room, separated by as little as 7.5 cm (about 3 inches).

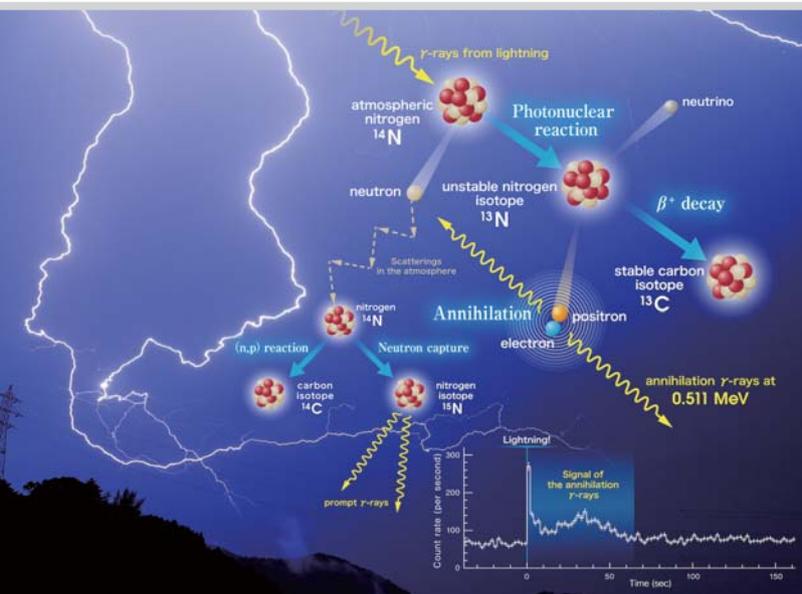
The team hopes that the improved specs will allow



such sensors to be installed in a variety of household appliances — such as lighting — to safely monitor the vitals of residents.

“This technology holds great promise for the future development of devices to

monitor health remotely,” concludes Sato. “We are currently considering test sites for observing the multiple applications of our sensor.” ■



A storm system approaches: the sky darkens, and the low rumble of thunder echoes from the horizon. Then without warning... Flash! Crash! — lightning has struck.

This scene, while familiar to anyone and repeated constantly across the planet, is not without a feeling of mystery. But now that mystery has deepened, with the

discovery that lightning can result in matter-antimatter annihilation.

In a collaborative study in *Nature*, researchers from Japan describe how gamma rays from lightning react with the air to produce radioisotopes and even positrons — the antimatter equivalent of electrons.

“We already knew that thunderclouds and lightning

Lightning, with a chance of antimatter

emit gamma rays, and hypothesized that they would react in some way with the nuclei of environmental elements in the atmosphere,” explains Teruaki Enoto from Kyoto University, who leads the project.

“In winter, Japan’s western coastal area is ideal for observing powerful lightning and thunderstorms. So, in 2015 we started building a series of small gamma-ray detectors, and placed them in various locations along the coast.”

But then the team ran into funding problems. To continue their work, and in part to reach out to a wide audience of potentially interested members of the public as quickly as possible, they turned to the internet.

“We set up a crowdfunding campaign through the ‘academist’ site,” continues Enoto, “in which we explained our scientific method and aims for the project. Thanks to everybody’s support, we were able to make far more than our original funding goal.”

Spurred by their success, the team built more detectors and installed them across the northwest coast of Honshu. And then in February 2017, four detectors installed in Kashiwazaki city, Niigata recorded a large gamma-ray spike immediately after a lightning strike a few hundred meters away.

It was the moment the team realized they were seeing a new, hidden face of lightning.

When they analyzed the data, the scientists found three

Winds blowing off a dying star

Stars like our Sun eject large amounts of gas and dust into space, containing various elements and compounds. *Asymptotic giant branch* — AGB — phase stars, near their end of life, are particularly significant sources of such substances in our galaxy.

Formation of dust around AGB stars has been considered to play an important role in triggering acceleration of stellar wind, but the detailed mechanism of

this acceleration has not been well explained.

And there is yet another conundrum. In space, silicon is ten times more abundant than aluminum. However, many oxygen-rich AGB stars are rich in aluminum oxide dust — the major carrier of aluminum — but poor in silicate dust — the carrier of silicon, which has puzzled researchers: why is aluminum oxide dust so abundant around oxygen-rich AGB stars?

In a paper published in

Science Advances, a research team led by Aki Takigawa of Kyoto University have utilized the Atacama Large Millimeter /submillimeter Array — ALMA, as the high spatial-resolution radio interferometer in Chile is known — to obtain detailed images of gas molecules forming dust surrounding an AGB star.

“Previously, there was a limit to how well we could observe dust forming regions close to stars,” explains Takigawa. “Now, thanks to the high spatial resolution of ALMA, we can obtain images of gases in these regions in finer detail. So we pointed ALMA toward an aluminum oxide-rich AGB star, *W Hydrae*.”

Gas molecules aluminum



monoxide and silicon monoxide — AlO and SiO — eventually form aluminum oxide and silicate dust. The team observed that AlO was distributed within three stellar radii of *W Hydrae*, which was surprisingly similar to the previously-observed dust distribution.

Meanwhile, SiO was detected beyond five stellar radii, and moreover 70% remained gaseous, without forming into dust.

“These results indicate that as aluminum oxide grows and accumulates near a star, the addition of a small amount of silicate dust may trigger wind acceleration,” elaborates Takigawa. “This decreases gas density, suppressing further silicate dust formation.”

“This may explain the presence of aluminum-oxide-rich but silicate-poor AGB stars.”

These new results shed light not only on the dynamics of gas and dust surrounding stars, but also on the importance of studying both together. The team plans to continue using ALMA to elucidate gas and dust dynamics in the universe. ■

distinct gamma-ray bursts. The first was less than one millisecond in duration; the second was a gamma-ray afterglow that decayed over several dozens of milliseconds; and finally there was a prolonged emission lasting about one minute.

Enoto explains, “We could tell that the first burst was from the lightning strike. Through our analysis and calculations, we eventually determined the origins of the second and third emissions as well.”

The second afterglow, for example, was caused by lightning reacting with nitrogen in the atmosphere. The gamma rays emitted in lightning have enough energy to knock a neutron out of atmospheric nitrogen, and it was the reabsorption of this neutron by particles in the atmosphere that produced the gamma-ray afterglow.

The final, prolonged

emission was from the breakdown of now neutron-poor and unstable nitrogen atoms. These released positrons, which subsequently collided with electrons in annihilation events releasing gamma rays.

“We have this idea that antimatter is something that only exists in science fiction. Who knew that it could be passing right above our heads on a stormy day?” says Enoto.

“And we know all this thanks to our supporters who joined us through ‘academist’. We are truly grateful to all.”

The team still maintains over ten detectors on the coast of Japan, and are continually collecting data. They look forward to new discoveries that may await them, and Enoto hopes to continue seeing the participation of ordinary citizens in research, expanding the bounds of scientific discovery. ■

The secret lives of ancient land plants

The clues to our evolutionary ancestors? They’re in our genes.

All organisms carry patterns in their DNA that scientists can analyze to decipher where and when a species

diverged on the evolutionary tree. These studies can reveal how a particular species evolved to become the organism we know today.

In collaboration with over 40 universities and research institutes worldwide, Takayuki

Cutting edge

Kohchi and colleagues at Kyoto University have unraveled the genome of the common liverwort — *Marchantia polymorpha* — gaining new insight into how the modest land plants

evolved. The results were published in the journal *Cell*.

“All land plants, from moss on rocks to trees that flower, evolved from a common ancestral algal species that colonized land about 500 million years ago,” explains Kohchi. “The liverwort diverged from other land plants at the earliest stage of evolution, and therefore still possess ancestral characteristics of plant species that followed.”

Liverworts have been used extensively in plant research since they were first studied in the late Middle Ages. In the past few years, Kohchi and his

colleagues had developed various molecular and genetic techniques that opened the door to improved analysis, especially for the study of plant genetics.

Using these techniques, the team deciphered the liverwort’s roughly 20,000 genes, discovering in part the low level of genetic redundancy that controls the plant’s development and physiology.

“Flowering plants have redundant copies of vital genes in their DNA, so that if something goes wrong, there’s a backup,” continues Kohchi. “And while liverworts have the

fundamental ancestral versions of basic mechanisms to keep plants alive, these are exceedingly simple.”

Based on these findings, the scientific significance of the lowly liverwort is now unassailable: it is a key model plant for molecular and genetic studies, providing hints to future agricultural applications and plant breeding technologies.

“Now that we know the liverwort genome, we can begin to decipher the functions of each individual gene, and how these evolved in later plant species,” concludes Kohchi. ■



What grosses out a chimpanzee?

Chimpanzees do some pretty disgusting things.

In their natural habitats, chimpanzees are known to pick up seeds from feces and re-ingest them. In captivity, some practice coprophagy: the deliberate ingestion of feces. These behaviors usually involve their own fecal matter, or that of their closest family members. If presented with feces and other bodily fluids from others, however, it’s an entirely different story.

In 2015, researchers from Kyoto University’s Primate Research Institute went to the Primate Center at the ‘Centre International de Recherches Médicales de Franceville’ (CIRMF) in Gabon to test whether chimpanzees are grossed out by some of the

same things as humans, particularly those that are sources of infectious disease.

Avoiding biological contaminants is a well-known manifestation of the adaptive system of disgust. In theory, animals evolved with this system to protect themselves from pathogens and parasites, which are often associated with media or substrates that invoke our sense of disgust. For example, bodily products are universal disgust elicitors in humans, but until now we did not know whether they also elicit similar reactions in our primate cousins.

In a study published in *Royal Society Open Science*, researchers found evidence that exposure to biological contaminants — ie feces, blood, semen — via vision,

smell, and touch, influences feeding choices even in chimpanzees.

A series of novel experiments show that chimpanzees delay eating food items placed atop replica feces compared to the more benign brown foam; generally stay further away from the smell of potential biological contaminants; and recoil from food items associated with soft and moist substrates.

“If chimpanzees and other primates can discern contamination risk via different sensory cues, individuals with higher sensitivities to feces and other

bodily fluids may be less infected, which could have important health benefits,” explains Cecile Sarabian, the lead author of the study.

“Moreover, such results may have implications for animal welfare and management. We can better inform staff and keepers about the adaptive value of such sensitivity and its flexibility, as well as identify which individuals may be more at risk of infection and therefore require more attention.”

While visual and olfactory cues of biological contaminants made the



chimps hesitate before chowing down, it did not stop them from feeding entirely. However, tactile information seemed to elicit the strongest aversive reaction.

When the researchers presented chimpanzees with an opaque box where they could reach in for food placed atop a soft and moist piece of dough, the chimps recoiled immediately after making contact. They did not, however, react the same way if the food was placed atop a piece of rope.

Chimpanzees, therefore, spontaneously react just like humans when blindly touching soft and moist substrates, which incidentally are expected to be rich in biological contaminants compared to hard and dry substances.

“While anyone watching the reactions of these chimpanzees in the tactile experiments can empathize with them, it’s premature to say that they feel the same as we might in that situation,” cautions Andrew MacIntosh, senior author on the study.

“What’s great about these experiments, though, is that the observed responses are functionally similar to what ours would be, providing evidence that the mechanism underlying their behavior could be similar to ours.”

“These experiments hint at the origins of disgust in humans, and help us better understand the protective function of this emotion,” concludes Cecile Sarabian. “We are currently in the process of expanding our ‘disgusting’ work to include other primate and non-primate species.” ■

Cells rockin’ in their DNA

Can sound affect how your genes work?

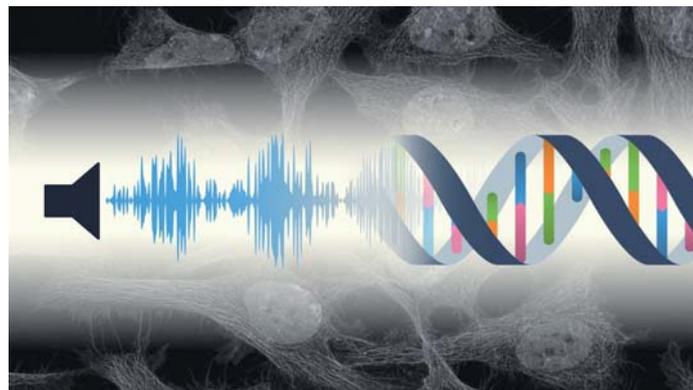
In a *PLOS ONE* study, scientists from Kyoto University’s Graduate School of Biostudies have shown that certain ‘mechanosensitive’ genes are suppressed when subjected to audible sound. Moreover, these effects vary depending on cell type, where some don’t show any sensitivity.

Cells, the fundamental units of life, are equipped with a variety of environmental recognition systems. Aside from substances such as chemical signals, they can recognize and respond to pressure, gravity, temperature, and light. For example, the cells in your eyes reading this sentence are equipped with systems that are specialized to process light.

“Much research has been done on these specialized cells, but nobody has looked into the cellular response to audible sound,” explains Masahiro Kumeta, lead author of the study. “Sound is arguably the most important and ubiquitous environmental information we receive. So that brings up the question — do cells recognize sound?”

The team conducted their experiments by exposing a variety of cell types to different sounds and performed gene expression analyses over time, focusing on genes that are known to react to physical stimuli.

“One such gene we examined helps in bone



formation, and is known to be upregulated with low-intensity ultrasound pulses,” continues Kumeta. “The other genes were associated with wound healing and the extracellular matrix.”

Series of cells were placed in an incubator outfitted with a full-range loudspeaker. After several hours of exposure to sounds with specific frequencies, expression levels of the target genes were analyzed.

The team found that these mechanosensitive genes were suppressed by up to 40% with only one to two hours of exposure. Moreover, after the genes were suppressed, the effects remained for at least four hours.

The response was also dependent on waveforms and decibel levels. When exposing the cells to square or triangle waves, gene suppression was not as significant compared to sine waves on any tested frequency. Additionally, some genes did not show compounded suppression at higher decibels while others were reduced even further. Kumeta says this indicates that sound stimulation induces different responses in the cell.

The results also showed

that such stimulations affect cells differently according to cell type. Cells that would eventually become bone or skeletal muscle showed the most suppression, while cells that had already differentiated had almost no response.

“Our research has found that audible sound stimulation leads to specific genetic responses,” adds team leader Shige H Yoshimura. “These data also show that at least two mechanisms are involved: transcriptional control and RNA degradation. Both are key players in controlling how much proteins are made in the cell.”

The team is planning to continue testing their hypotheses, as well as search for other genes that have been affected, such as ones that may have been upregulated by audio stimulation.

“Further studies using different sounds, cells, and experimental setups are sure to uncover more of this novel relationship between life and sound,” continues Kumeta.

“In addition to the cellular level,” concludes Yoshimura, “we will also focus on tissue- and organism-level effects to investigate the biological significance of sound response in living systems.” ■

Heidelberg European Center

Active support for student exchange — an important pillar for internationalization of the university — is essential for creating a supportive environment for both inbound and outbound students and staff.

Therefore one of the primary functions of the Kyoto University European Center is support of the university's educational activities in Europe, including the collection of information on education policy and study-abroad programs, dissemination to university students, faculty, and staff, supporting joint education and student exchange programs between Kyoto University and partner institutions in Europe, and providing assistance to exchange students coming from Kyoto.

Additionally, the Center

also provides information about studying at Kyoto University to prospective students at education fairs throughout Europe, as well as at seminars organized or co-organized by the university.

Another key European Center activity is participation in overseas study events to introduce the broad range of opportunities at Kyoto University. During 2017, Center staff participated in "Study in Japan" in Freiburg, and then "Experience Japan Exhibition 2017" in London, one of the biggest fairs in Europe. These events are important opportunities for staff not only to provide up-to-date information to



prospective undergraduate and graduate students but also to hear firsthand about European students' needs, expectations, and concerns regarding study in Japan.

At these events, Center staff frequently hear the need for English-language degree programs, particularly in the humanities. As part of a solution, in October 2017 the university established a new "Joint Degree Master of Arts Program in Transcultural Studies (JDTS)", combining the efforts of the Kyoto University Graduate School of Letters and the Heidelberg Centre for Transcultural Studies. This is the first joint-degree program in the humanities in Japan, and also the first joint-degree program for master course students for Kyoto University.

A full-time, research-oriented program, JDTS focuses on transcultural dynamics between and within Asia and Europe in a global context. It is taught entirely

in English, and over the two years of study, students each choose one of the following themes: Society, Economy and Governance; Knowledge, Belief and Religion; and Visual, Media and Material Culture.

Successful graduates will receive a Master of Arts degree jointly awarded by both universities. Ten students are expected to enroll each year — five in Heidelberg and five in Kyoto — with each studying one year at the home university, and the second at the partner. An orientation on the German side — held on 24 November in Heidelberg — attracted more than 20 students, giving organizers hope that students who are interested in these topics will enroll, polish, deepen, and expand their academic scope through this program.

Kyoto University's European Center is committed to continuing support for the university's educational activities in Europe and beyond.



Bangkok ASEAN Center

One primary mission of the Kyoto University ASEAN Center is the promotion of educational exchanges with partner universities in the region, thereby offering wider opportunities for students. Providing consultation to prospective students — particularly in Thailand — through education fairs, school visits, and support staff at the Center, a wide range of voices of ASEAN students can also be heard: what makes them interested in study in Japan, and what obstacles they may face.

Meeting prospective students in Thailand

Meeting students and parents in person is the best way to understand their needs and interests, and provide exactly the information they seek.

This year, Center staff visited two prominent secondary schools: Mahidol Wittayanusorn School, the first science-specialized school in Thailand, and Kamnoetvidya Science Academy (KVIS), established in 2015 to educate talented students in mathematics and science. Several study fairs were attended, such as the JUNE Fair at the Japanese



Embassy in Thailand, the 1st CU Study Abroad Fair held at Chulalongkorn University, and JASSO's Study in Japan Fairs in Bangkok and Chiang Mai. More events, such as the Japan Education Fairs in Phitsanulok, Khon Kaen, and Songkhla, as well as the Kyoto Study Fair 2018 in Bangkok, are planned for 2018.

Study opportunities at Kyoto University have been introduced to nearly 1,000 students in 2017 alone. This direct communication has helped the Center understand study abroad trends, and lowers the barrier to inquiries by email and phone, and even occasional walk-ins.

Opportunities and challenges for study in Japan

Japan is a major destination for ASEAN students choosing to study abroad. The Office of Higher Education Commission of Thailand (OHEC) has shown that Japan is fourth, coming after China, the United States, and Australia. And the number of Thai students in Japan has increased to over 3,000, which is double what it was 10 years ago.

Those who have visited the university's booth explain that the most common motivations for coming to Japan are interests in Japanese culture, language, and advanced technology. Students also consider that learning Japanese as a second foreign language will be a career asset. The wide



availability and high reputation of Japanese products in Thailand also seems to foster an interest in learning about Japanese technology, as well as creating a sense of trust in the nation's higher education.

Hundreds of students participate in such events, in part to find their ideal courses of study. And by maintaining close communication with various departments and faculties at the university, Center staff are able to introduce opportunities that match the students' academic interests, while also providing admission guidance.

Center staff member visits Kyoto University

Ms Siwaporn Chousorn has been with the ASEAN Center for over two years, fulfilling an important role bridging Kyoto University with prospective students and their parents. Since 2016, Ms Siwaporn has undertaken multiple week-long training sessions at the university, expanding her knowledge of internationally-oriented curricula and sharing information gathered from talking with prospective

students in ASEAN. Her most recent trip to Kyoto took place 20–24 November 2017.

“Speaking with various departments has led me to realize that I should gather and share all my information in one place, such as on our website or Facebook, which will then be easily accessible by people interested in studying in Kyoto. During this trip, I also spoke with Thai students, and learned about their experiences studying and living in Japan. It can be quite tough adjusting to the language and way of life for example, but Japanese classes provided by the university support them well. I feel that the voices of current students and alumni can be very useful for prospective students in Thailand and ASEAN.”

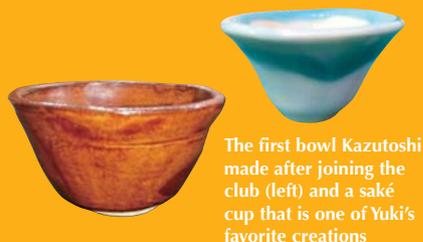
Kyoto University offers many rewarding opportunities to students from ASEAN countries. And with its office in Bangkok, the university strives to be a hub to connect prospective students to Kyoto, and help them shape their academic careers in Kyoto University's unique spirit of academic freedom.



A Walk in the Water,
Yuki's creation for
the 2016 exhibition

Kneading individuality from a muddy mountain of failures Tenzangama Pottery Club

Kazutoshi Masuda (2nd Year, Faculty of Integrated Human Studies)
Yuki Uemura (3rd Year, Faculty of Economics)



The first bowl Kazutoshi made after joining the club (left) and a saké cup that is one of Yuki's favorite creations



Yuki kneads clay for a pot (left) while Kazutoshi throws a pot on the wheel



At the club's stand in the Heian Rakuichi Handmade Market in Okazaki Park, where creations are for sale to the public

The door opens into a lively, atelier-like atmosphere. Club members are laughing and chatting, grasping the clay with both hands, kneading it deeply — as if practicing *shiatsu* massage — and feeling for impurities. This is a ritual that the members undertake whenever they return to the mountain of mud that results from unfired pots that have cracked or were badly formed.

"It takes at least two weeks from start to finish, beginning with selecting the clay, forming the piece, drying, then biscuit firing, applying glazes for color and design, and finally glaze firing," explains Kazutoshi Masuda, describing making a piece in the lively club atmosphere that enticed him into joining.

The creations of the club's 40-odd members are not limited to pots, but are many and varied, including accessories and objets d'art. The club sells the works at its annual exhibition, and at the University's November Festival.

The club room is open all day and all night. "On days when we don't have meetings, club members come and work on their pieces any time they like. Around the time of the exhibition, there is always somebody here." Kazutoshi is one of the club's regulars.

"There is no right answer in pottery. Sometimes, a piece that we think is quite rough can actually receive a lot of praise. I get ideas from ceramics I see in restaurants, cafés, and pottery fairs, and I love being able to eat and drink from items that I have made just the way I like."

The very first tea cup he made — under the instruction of a senior club member — is one of his favorites, and he uses it daily.

For Yuki Uemura, "Pottery is suited to people who like to make things. It doesn't always require a delicate touch, so it was easy even for a complete beginner like me. You don't have to be all that good with your hands," she says bashfully.

Yuki likes the color blue, so she often uses glazes with blue hues. Even with the same glaze, she won't know what color the piece will be until it comes out of the kiln. The color is affected by diverse conditions, such as how much oxygen is in the kiln during firing.

"That is what makes pottery so appealing. I enjoy it when the final product turns out completely differently from what I imagined. Even with the same blue glaze, if I mix it with other glazes, I can create more and more new colors."

Kazutoshi and Yuki gave us a demonstration. Both have a soft, gentle air about them, but the instant they face the clay, the looks in their eyes change.

"I want to properly pass on to younger members the skills that my seniors taught me," says Kazutoshi, as he works the clay with the air of an artisan. There are no teachers. The wisdom of past club members that has been kneaded over the past twenty-some years is their textbook.

Achieving uniformly thin walls on a pot requires experience and diligence. In Japanese workplaces there is an expression, "To apply a skill, you must first build a foundation," and watching these two young people embody the freedom of creativity, we can catch a glimpse of the firmly built foundation that underpins their efforts.





For 30 seconds until the buzzer sounds, contestants execute technique after technique on each other. “Strong contestants have unique *newaza kata* and *waza* that they have honed themselves. We want our members to find their inner sources of strength and become *newaza* specialists.”

The bout-ending buzzer sounds, and the athletes relax their *newaza* offensive and defensive positions and lie back on the mat with their arms and legs outstretched. With barely enough time to catch their breath, they are soon up again, taking bows and challenging new opponents. They each repeat series’ of moves, progressing through their tough routines.

“Our dojo is in the basement, so when it gets close to summer, it gets really steamy in there. It’s tough, both physically and mentally,” club captain Yuhei Unno says with a smile on his face that belies his harsh words. But he isn’t exaggerating: in addition to the normally humid June weather, the dojo heat is even more intense, mingling with the perspiration of the club members.

“This is all for the *Nanadai-sen*,” declares Yuhei, referring to the judo competition held among the seven major national universities that is also known as *Nanatei Judo*.

Kyoto University is a traditionally strong judo school, and has won the meet more times than any other university. It even once had a ten-year winning streak. Victory had escaped the club in recent years, but it clenched a long-cherished win last year.

“In one bout, one of our senior athletes pushed through with a dislocated shoulder for the sake of the team, and when we knew we had won the meet, we all cried and hugged each other.”

It was a moment when everyone could feel that the days of hard training had been worth it. That is why, during his time as captain, Yuhei’s determination to win has been stronger than anyone.

“Kyoto University’s strength lies in our rich repertoire of *newaza*, or ground techniques. Our attack and defense *newaza* — passed down without

interruption since the club was founded in 1900 — are much better established than at the other six universities in the meet.”

Instead of more widely-followed Kodokan Judo rules, *Nanadai-sen* judo uses *Kosen Judo* rules, in which *newaza* play a central role. Pulling an opponent into a *newaza*, which is prohibited in Kodokan Judo, is possible.

“With *tachiwaza*, or standing techniques, a lot can depend on the athlete’s build and athletic ability. But with *newaza*, experience and knowledge are what make the difference. When an opponent executes a technique on you, you must instantly decide how to respond.”

When anyone has any questions, all of the club members gather in a circle after training to discuss the issue. Repeating this daily, a competition-ready team of uniform excellence forms.

After practice, the members laugh and chat together as they wolf down boiled eggs and rice balls. This is a custom that began years ago when some former members assisted the club with food expenses to build up the members’ strength.

“This club exists thanks to the warm support of many people. I myself feel I have grown in this club, so I will definitely continue supporting it after I graduate.”

Yuhei is set to retire from the role of captain after the *Nanadai-sen*. But even after a new captain has taken over, the club spirit that has been cultivated over many decades will continue to be passed on without interruption.



As soon as the rigors of practice are over, the mood relaxes. “We place importance on being able to switch on and off.”



Yuhei Unno (4th Year, Faculty of Education)

Surrender the peak of *Kôsen Jûdo*? Never!!
Judo Club captain 2016–7

Office of Global Communications

With a focus on relaying the university's research output to domestic and international audiences, the university's Office of Global Communications got started in October 2015. Visit us at Public Relations in the historic Clock Tower building, or reach us via <comms@mail2.adm.kyoto-u.ac.jp> or @KyotoU_News or facebook.com/Kyoto.Univ.E

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Artwork by Kyoto University students, combined with artistic scenes as glimpsed by researchers.



A Brocken spectre
And everyone all around
Giving me high-fives

The paddy field boils
With a violent motion
I slice the melon

Scifi/Fantasy Lit Society

Noumi (nom de plume, 4th Year, Faculty of Letters)

Recently, haiku has been enjoying something of a revival among some of our club membership, so I tried my hand at a couple of verses on a summer theme. Our society holds haiku recitals several times a year.



KUES Electric Organ Club

Yoshiki Sakuraba (4th Year, Faculty of Letters)

Title: Vers la flamme (Toward the flame), Op 72 (Alexander Scriabin)

Spring is birth, winter is death. If we compare human life to the seasons, then as university students, we are near the mid-summer of our lives: the enveloping heat, the impotent frustrations. The scene before our eyes is distorted in the sun's shimmering blaze. Expanding on this image, I used mysterious, murky tones to express a scene of heading into a trance-like state.

Yunian Pang (3rd Year, Graduate School of Advanced Integrated Studies in Human Survivability, *Shishu-Kan*)

The party is over and everyone is leaving. Referring to Nietzsche's philosophy of the Apollonian and Dionysian, in this scene I sought to express "the sublimation of inner sensibility and the transcendence of external reason amid the resonance of echoes and anger, rapture, and chorus." The summer heat and melon represent "echoes and anger", the single remaining melon slice represents the "transcendence of reason", and the soft facial expression represents the "sublimation of sensibility" hiding inside the heart.



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