After attending the 27th National Greenery Conservation meeting held in Kashiwanoha Park on June 12, the Crown Prince and Crown Princess paid a visit to the center, where we had the opportunity to introduce our research.

The presentation was conducted in two parts.
First, we performed an experiment to demonstrate the activity of the brain and autonomic nervous system. We examined the prefrontal cortex activity of our research colleague, Ms. Harumi Ikei, using portable near-infrared spectroscopy (the arrow indicates the near-infrared spectroscope), which displayed real-time findings (left screen, Photo 1). In addition, we measured her sympathetic–parasympathetic activity based on heart rate variability (finger type).

Photo 1: Real-time measurement of prefrontal cortex activity using portable near-infrared spectroscopy. (From left to right: Professor Yoshifumi Miyazaki, the Crown Prince, the Crown Princess, Assistant Professor Song Chorong, and Harumi Ikei, doctoral student).

Photo 2: Measurement of brain activity (the sensor was mounted on the forehead, as indicated by the arrow); the Crown Prince was speaking to our researchers.

The brain activity (near-infrared spectroscopy) of Ms. Ikei was displayed on the left screen in real time. Speaking to His Imperial Highness produced a rapid increase in brain activity, which caused those present to erupt in laughter, thereby creating a relaxed atmosphere. Her Imperial Highness and Prefectural Governor Kensaku Morita observed the changes in activity with great interest.

“Both sides are fluctuating to the same extent,” Her Imperial Highness commented. I explained that differences vary according to the individual, and although a large number of people have considerable fluctuations on the left side, both sides fluctuated to the same extent in Ms. Ikei’s case. Her Imperial Highness also asked Assistant Professor Song Chorong and Ms. Ikei how long had they been engaged in research together, and they informed her that they had been working together for 5 years.

Photo 3: The Hinoki cypress oil that was used.

Photo 4: Her Imperial Highness inhaling the scent of the Hinoki cypress oil.

Both the Crown Prince and Crown Princess inhaled the scent of Hinoki cypress oil and exclaimed that it had a nice aroma, which made one feel relaxed.
“Research on the physiological effects of forests, wood, and flowers at the Center for Environment, Health and Field Sciences at Chiba University is the most advanced in the world. We have demonstrated that the aroma of the cypress oil that you just smelled or sniffing of the rose oil placed in front of you, and even just the sight of them, physiologically relaxes the brain and body,” I explained. His Imperial Highness offered encouraging words as he stated, “That’s incredible. It also relaxes the body I see. All the best with your research.”

After that, I presented a PowerPoint lecture on the “Science of Natural Therapy” (Photo 5).

Photo 5: PowerPoint lecture.

The Crown Prince asked, “So cypress is good for us after all?”; I told him, “The effects of cypress and cedar have been confirmed. Our experiments demonstrate that scents from forests or wooden houses not only improve the mood but also relax the brain and body.”

As he was leaving, the Crown Prince made his way to Ms. Ikei and said to her warmly, “All the best in getting your doctorate.” Ms. Ikei’s brain activity rose sharply in response, to which Her Imperial Highness quipped, “Brain activity has increased, I see.” This resulted in friendly laughter erupting throughout the room.