## **Kyoto University's Award-Winning Research**

"There is a need to encourage long-term research, even if we don't know where it will lead us, nor foresee its applications." Kenichi Fukui

Kyoto University is acknowledged as one of the most accomplished research-oriented universities in Asia. The validity of that reputation is testified by the accolades conferred on our alumni and researchers, most notably seven Nobel Prize laureates who undertook vital research during their time at the university. In addition to those awards, several other Kyoto University faculty members have received respected accolades, including two Fields Medalists and one recipient of the Gauss Prize.

| <b>Nobel Prize</b> |                                  |                     |
|--------------------|----------------------------------|---------------------|
| 1949               | Physics                          | Hideki Yukawa       |
| 1965               | Physics                          | Shinichiro Tomonaga |
| 1981               | Chemistry                        | Kenichi Fukui       |
| 1987               | Physiology and Medicine          | Susumu Tonegawa     |
| 2001               | Chemistry                        | Ryoji Noyori        |
| 2008               | Physics                          | Makoto Kobayashi    |
| 2008               | Physics                          | Toshihide Maskawa   |
| Fields Meda        |                                  |                     |
| 1970               | Mathematics                      | Heisuke Hironaka    |
| 1990               | Mathematics                      | Shigefumi Mori      |
| <b>Gauss Prize</b> |                                  | 1 Mage 01           |
| 2006               | Mathematics                      | Kiyoshi Ito         |
| Kyoto Prize        |                                  |                     |
| 1995               | Basic Sciences                   | Chushiro Hayashi    |
| 1998               | Basic Sciences                   | Kiyoshi Ito         |
| 2004               | Advanced Technology              | Alan Curtis Kay     |
| 2010               | Advanced Technology              | Shinya Yamanaka     |
| Japan Prize        |                                  | 11                  |
| 2005               | Information and Media Technology | Makoto Nagao        |
| 2005               | Cell Biology                     | Masatoshi Takeichi  |
| Lasker Awa         | rd                               |                     |
| 1987               | Basic Medical Research           | Susumu Tonegawa     |
| 1989               | Basic Medical Research           | Yasutomi Nishizuka  |
| 1998               | Basic Medical Research           | Yoshio Masui        |
| 2009               | Basic Medical Research           | Shinya Yamanaka     |

The philosophical outlooks of Hideki Yukawa and Kenichi Fukui in particular have left enduring legacies at Kyoto University. Yukawa was the first Japanese national to be awarded the Nobel Prize, receiving his award in 1949, shortly after the end of WWII. An active peace campaigner, Yukawa has provided a great deal of inspiration for subsequent generations of researchers in Japan.

Fukui firmly advocated that students should be encouraged to undertake original research early in their academic careers. This had a direct influence on Kyoto University's education system, which allows for early specialization. The university's encouragement of interdisciplinary collaboration was also influenced by Fukui, who famously held the belief that breakthroughs in science are produced by the unexpected fusion of remotely related fields.

"Those who explore an unknown world are travelers without a map; the map is the result of exploration. Their destination is not known to them, and the direct path that leads to it is not yet made."

Hideki Yukawa

