



Prof. Yutaka Takeuchi

Faculty of Biological Science and Technology, Kanazawa University

(1) Personal

Date of Birth: 26 March 1975

Age: 47

Nationality: Japanese

Position: Professor

E-mail: yutaka@se.kanazawa-u.ac.jp

Scopus Author ID : 35300725400

ORCID ID : 0000-0001-5450-4632

(2) Profession

2000-2002: Student Research Fellow of the Japan Society for the Promotion of Science (Japan)

2002-2005: Postdoctoral Research Fellow of the Japan Society for the Promotion of Science (Japan)

2003-2005: Visiting Scientist in Cincinnati Children's Hospital Medical Center (Cincinnati, USA)

2005-2010: Assistant Professor, Research Center for Advanced Science and Technology, Tokyo University of Marine and Science Technology (Japan)

2010-2016: Associate Professor, Research Center for Advanced Science and Technology, Tokyo University of Marine and Science Technology (Japan)

2016-2018: Assistant Professor, Aquaculture Group, Department of Fisheries, Faculty of Fisheries, Kagoshima University (Japan)

2018-2019: Associate Professor, Aquaculture Group, Department of Fisheries, Faculty of Fisheries, Kagoshima University (Japan)

2019-present: Professor, Faculty of Biological Science and Technology, Kanazawa University (Japan)

(3) Education record

B.Sci. – Tokyo University of Fisheries, 1997, Aquaculture.

Ph.D. – Tokyo University of Fisheries, 2002, Fisheries Science.

Dissertation title: “Basic research on the use of primordial germ cells for the cell-mediated gene transfer in rainbow trout”

(4) Academic specialty

Molecular and Cellular Biology, Reproductive Biology, Reproductive Engineering, Developmental Biology, Aquaculture, Seed Production, Fish Transgenesis, Germ Cell Transplantation Technique.

(5) Publications (selected papers among 84 papers published in ISI indexed journals)

Takeuchi Y, Yoshizaki G, Takeuchi T. Surrogate broodstock produces salmonids. *Nature* 430, 629-630 (2004).

Okutsu T, Suzuki K, **Takeuchi Y**, Takeuchi T, Yoshizaki G. Testicular germ cells can colonize sexually undifferentiated embryonic gonad and produce functional eggs in fish. *PNAS* 103, 2725-2729 (2006).

Okutsu T, Shikina S, Kanno M, **Takeuchi Y**, Yoshizaki G. Spermatogonial transplantation in fish: production of trout offspring from salmon parents. *Science* 317, 1517 (2007).

Yazawa R, **Takeuchi Y (corresponding author)**, Amezawa K, Sato K, Iwata G, Kabeya N, Yoshizaki G. GnRH α -induced spawning of the Eastern little tuna (*Euthynnus affinis*) in a 70-m³ land-based tank. *Aquaculture* 442, 58-68 (2015).

Yoshikawa H, **Takeuchi Y (corresponding author)**, Ino Y, Wang J, Iwata G, Kabeya N, Yazawa R, Yoshizaki G, Efficient production of donor-derived gametes from triploid recipients following intra-peritoneal germ cell transplantation into a marine teleost, Nibe croaker (*Nibea mitsukurii*). *Aquaculture* 478, 35-47 (2017).

Yoshikawa H, Xu D, Ino Y, Yoshino T, Hayashida T, Wang J, Yazawa R, Yoshizaki G, **Takeuchi Y (Corresponding author)**, Hybrid sterility in fish caused by mitotic arrest of primordial germ cells. *Genetics* 209, 507-521 (2018).

Xu D, Yoshino T, Konishi J, Yoshikawa H, Ino Y, Yazawa R, Lacerda SMSN, França LR, **Takeuchi Y (Corresponding author)**, Germ cell-less hybrid fish: ideal recipient for spermatogonial transplantation for the rapid production of donor-derived sperm. *Biology of Reproduction*, ioz045, <https://doi.org/10.1093/biolre/ioz045> (2019).

Watari T, Nakamura Y, Kotcharoen W, Hirakata Y, Satanwat P, Pungrasmi W, Powtongsook S, **Takeuchi Y**, Hatamoto M, Yamaguchi T. Application of down-flow hanging sponge – Upflow sludge blanket system for nitrogen removal in Epinephelus bruneus closed recirculating aquaculture system. *Aquaculture*, 2021, 532, 735997 (2021).

(6) Awards:

Achievement Award for Young Scientists in Fisheries Science: **Yutaka Takeuchi**.
Establishment of spermatogonial cell transplantation technique in marine teleost.
The Japanese Society of Fisheries Science, 2012.

Japan Prize in Agriculture Sciences, Achievement Award for Young Scientists: **Yutaka Takeuchi**. Establishment of spermatogonial cell transplantation technique in marine teleost. The Foundation of Agricultural Sciences of Japan, 2014.

Distinguished Award for Promotion in HIRAMEKI TOKIMEKI SCIENCE (Welcome to a University Research Lab-Science That Inspires): **Yutaka Takeuchi**. Introduction to the developmental biotechnology in Fisheries Science. Japan Society of the Promotion of Science, 2014.

(7) Ongoing research projects

- 1) Establishment of germ cell transplantation technique in marine teleost
- 2) Study of germ cell development in abalones
- 3) Artificial spawning induction and seed production of tunas and bonitos
- 4) Development of Information and Communications Technology in land-based aquaculture systems