

3

?

RMC

)

)

( )

"

"



Arb

Arb  
Ara

*araKO arbKO*  
Arb

Ar

Ar

Ar

Ar

"

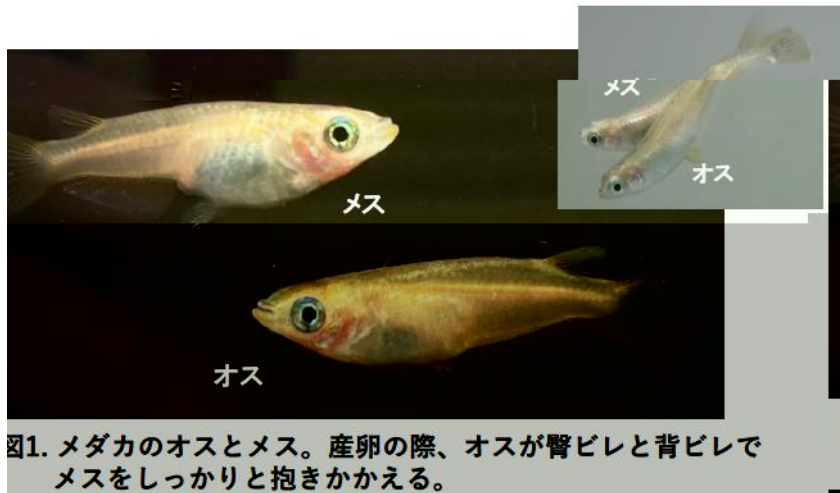
"

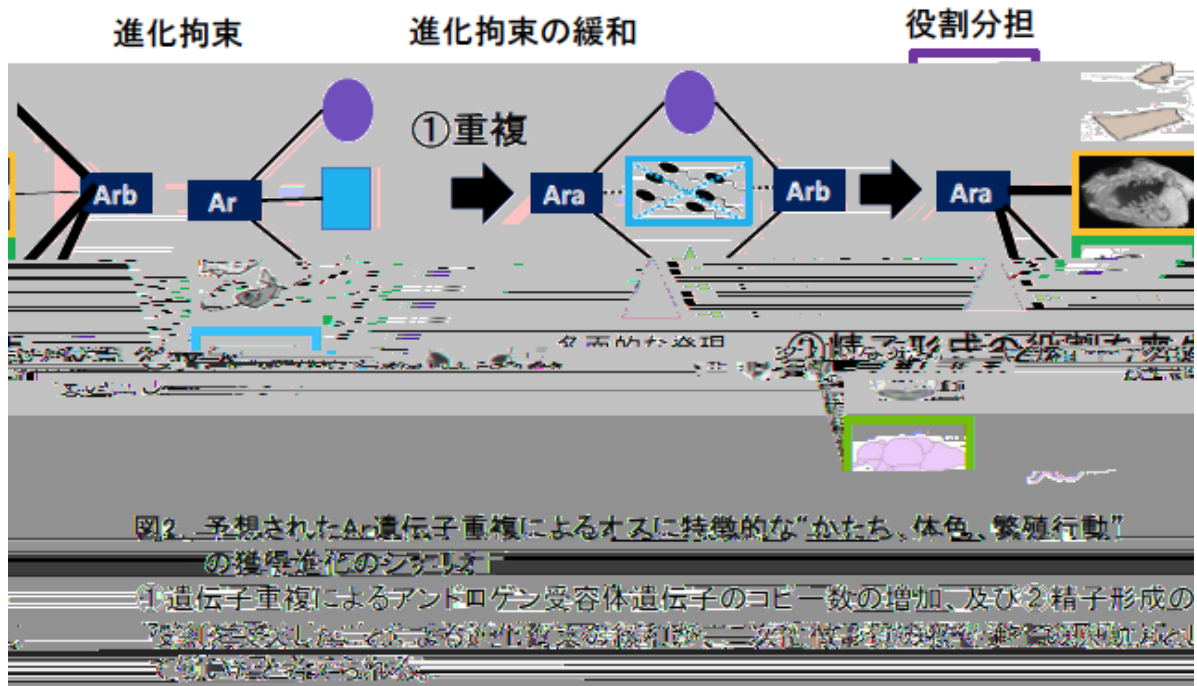
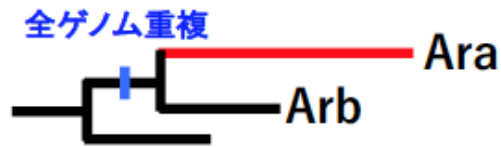
37

"

"

Ar





( )

( )

( )

: Ogino Y, Katoh H, Kuraku S, Yamada G. Evolutionary history and functional characterization of androgen receptor genes in jawed vertebrates. *Endocrinology*. 2009, 150(12):5415-27. Doi: 10.1210/en.2009-0523.

: Ogino Y, Kuraku S, Ishibashi H, Miyakawa H, Sumiya E, Miyagawa S, Matsubara H, Yamada G, Baker ME, Iguchi T. Neofunctionalization of androgen receptor by gain-of-function mutations in teleost fish lineage. *Mol Biol Evol*. 2016, 33(1):228-44. Doi: 10.1093/molbev/msv218.

JSPS (Grant Numbers: P15K07138, JP19K06741, JP20H04928, JP16H06280, JP19H03049, JP22H00386)

Nature Communications

Evolutionary differentiation of androgen receptor is responsible for sexual characteristic development in a teleost fish.

Yukiko Ogino\*, Satoshi Ansai, Eiji Watanabe, Masaki Yasugi, Yukihiro Katayama, Hirotaka Sakamoto, Keigo Okamoto, Kataaki Okubo, Yasuhiro Yamamoto, Ikuyo Hara, Touko Yamazaki, Ai Kato, Yasuhiro Kamei, Kiyoshi Naruse, Kohei Ohta, Hajime Ogino, Tatsuya Sakamoto, Shinichi Miyagawa, Tomomi Sato, Gen Yamada, Michael E. Baker, Taisen Iguchi E P19K06741 , 1

TEL 092-802-4766

Mail [ogino@agr.kyushu-u.ac.jp](mailto:ogino@agr.kyushu-u.ac.jp)

TEL 092-802-2130 FAX 092-802-2139

Mail [koho@jimu.kyushu-u.ac.jp](mailto:koho@jimu.kyushu-u.ac.jp)

TEL 075-753-5729 FAX 075-753-2094

Mail [comms@mail2.adm.kyoto-u.ac.jp](mailto:comms@mail2.adm.kyoto-u.ac.jp)

TEL 0564-55-7628 FAX 0564-55-7597

Mail [press@nibb.ac.jp](mailto:press@nibb.ac.jp)

TEL 0770-52-6300 FAX 0770-52-6003

Mail [j-kitayama@fpu.ac.jp](mailto:j-kitayama@fpu.ac.jp)

TEL 086-251-8415 FAX 086-251-7294

Mail [www-adm@adm.okayama-u.ac.jp](mailto:www-adm@adm.okayama-u.ac.jp)

TEL 082-424-6762 FAX 082-424-6040

Mail [koho@office.hiroshima-u.ac.jp](mailto:koho@office.hiroshima-u.ac.jp)