Focus	Development of Cre-loxP recombination atlas for Cre-driver mouse strains
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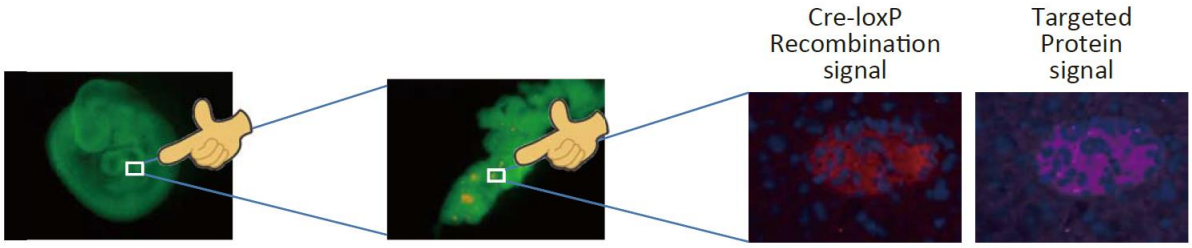
Overview	Conditional knockout (cKO) mice are a very significant tool for investigating gene function in vivo. The Cre-loxP recombination system has been widely used to generate cKO mice, and the accuracy of Cre enzyme expression in Cre-driver mice has a great influence on the elucidation of genetic function. The mouse resource of the National BioResource Project (NBRP) has been collected many Cre-driver mouse strains. To meet a variety of needs related to basic biomedical research, it is essential to further increase in the number of Cre-driver mouse strains. However, histological characters of Cre-loxP recombination on Cre-driver mouse strains have been depended on the publication information from an original provider. Furthermore, there are few histological data on Cre-loxP recombination on temporal and spatial aspects. Recently, we produced a novel ROSA26 knock-in Cre-reporter C57BL/6N strain exhibiting green emission before and red after Cre-mediated recombination, designated as strain R26GRR. To improve quality of Cre-tool mouse repository, therefore, we develop Cre-loxP recombination atlas of F1 progeny from crosses between Cre-driver mice and R26GRR mice. The atlas will be shown on the website of the NBRP mouse resource.  Image of Cre-loxP recombination atlas
Progress	1) Al-Soudy AS, Nakanishi T, Mizuno S, Hasegawa Y, Shawki HH, Katoh MC, Basha WA, Ibrahim AE, El-Shemy HA, Iseki H, Yoshiki A, Hiromori Y, Nagase H, Takahashi S, Oishi H, Sugiyama F. Germline recombination in a novel Cre transgenic line, Prl3b1-cre mouse. *Genesis*. 2016 http://onlinelibrary.wiley.com/doi/10.1002/dvg.22944/pdf 2) Hasegawa Y, Hoshino Y, Ibrahim AE, Kato K, Daitoku Y, Tanimoto Y, Ikeda Y, Oishi H, Takahashi S, Yoshiki A, Yagami KI, Iseki H, Mizuno S, Sugiyama F. Generation of CRISPR/Cas9-mediated bicistronic knock-in Ins1-cre driver mice. *Exp Anim*. 2016 https://www.jstage.jst.go.jp/article/expanim/advpub/0/advpub_16-0016/_pdf