Eunice Kennedy Shriver National Institute of Child Health and Human Development

Research Survey: Down Syndrome Rodent Models

The purpose of this survey is to learn how scientists use rodent models for DS research; assess satisfaction with currently available models; describe researchers' perceptions of the limitations of currently available models; and provide information to help assess future needs for such research resources.

The survey should take less than 10 minutes to complete, on average. Thank you for participating in our survey. Your feedback is important.

OMB#: 0925-0643
ExpDate:10/2017

Eunice Kennedy Shriver National Institute of Child Health and Human Development

Research Survey: Down Syndrome Rodent Models

1. Are you currently conducting research on Down syndrome using animal (rodent) models?

- ◯ Yes
- ◯ No
- ◯ Not sure

2. If you use rodent models for Down syndrome, which one(s) do you use? apply)

- ☐ Ts65Dn (sighted). (B6EiC3Sn.BLiA-Ts(1716)65Dn/DnJ): Cesium irradiation was used to produce a reciprocal translocation, T (16;17) 65Dn. This retinal degeneration gene.
- ☐ Ts65Dn (can lose vision). (B6EiC3Sn a/A-Ts(1716)65Dn/J): Cesium irradiation was used to produce a reciprocal translocation, T (16;17) 65Dn; degeneration gene.
- ☐ Ts1Cje. (B6EiC3Sn-Rb(12.Ts171665Dn)2Cje/CjeDnJ): This strain carries a Robertsonian fusion between the small Ts65Dn marker chromosome of Chr 16 genes from App to Mx1, the same as in Ts65Dn strains. This strain contains the retinal degeneration gene.
- ☐ Dp(16)1Yey. (B6.129S7-Dp(16Lipi-Zbtb21)1Yey/J): This strain was engineered to contain a duplication orthologous to human 21q11-q22.3 and to genes on Hsa21. This strain does not contain the retinal degeneration gene.
- ☐ Dp(10)1Yey. (B6;129-Dp(10Prmt2-Pdxk)2Yey/J): This strain was engineered to contain a duplication of 41 genes syntenic to the distal part of hu
- ☐ Dp(17)1Yey. (B6;129-Dp(17Abcg1-Rrp1b)3Yey/J): This strain was engineered to contain a duplication of 19 genes syntenic to the proximal part
- ☐ Tc1. (B6129S-Tc(HSA21)1TybEmcf/J): This strain carries a freely segregating chromosome containing 90% of HSA21 (269 genes).
- ☐ Other (please specify)

3. How well do these mouse models above satisfy your current research needs?

Not at all	Not very well	Somewhat well	Very well	Extremely well
◯	◯	◯	◯	◯

4. What suggestions would you make to improve upon the existing strains?

5. Are you doing any research involving rodent models of a single gene alteration on human chromosome 21 (e.g., transgenic, targeted deletion, duplication of App, Dyrk1a, etc.)?

- Yes
- No

6. Which gene(s) are you altering on chromosome 21?

7. Please describe any existing rodent Down syndrome models that you would like to see be made available to the investigator community. If none, please enter "none".

8. Please describe any new models that you think should be engineered and made available to investigators. If none, please enter "none".

9. Please describe any rodent models of Down syndrome that you have generated that you would like to make available to other investigators? (If none, please enter "none").

10. Please describe any specific BAC transgenic lines you think should be made available? (If none, please enter "none").

11. Do you consider genetic background when you choose mouse models and/or design your experiments?

- ◯ Yes
- ◯ No

12. Please describe how you consider genetic background when you choose mouse models and/or design your experiments.

13. Where do you receive funding for your Down syndrome rodent research? (check all that apply)

- [ ] NIH
- [ ] European Commission funding
- [ ] The Wellcome Trust
- [ ] Private Foundation (fill in name):_____
- [ ] Other (fill in name):_____

14. From which resource do you receive your rodent models? (check all tha

- [ ] Jackson Laboratory (JAX)/Charles River Laboratory
- [ ] Taconic Biosciences
- [ ] European Mouse Mutant Archive (EMMA)
- [ ] Directly from collaborators
- [ ] Other (please specify)

15. Additional comments or suggestions:

16. If we have further questions, can we contact you for more details? (optional)

Name

Email