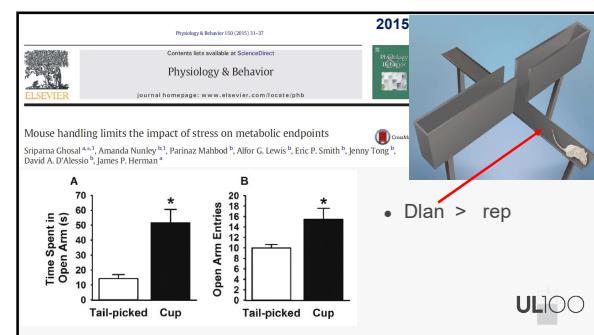
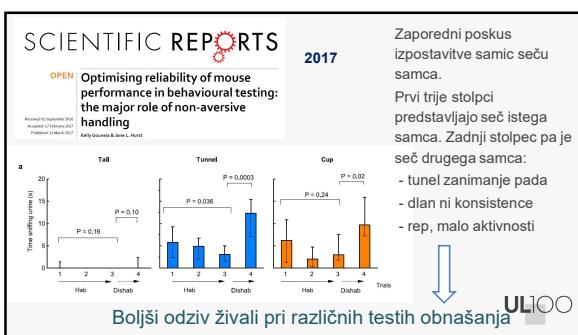
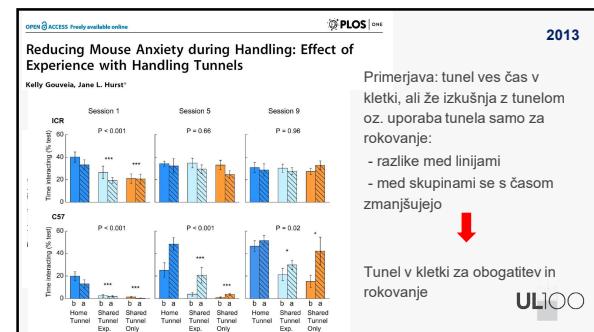
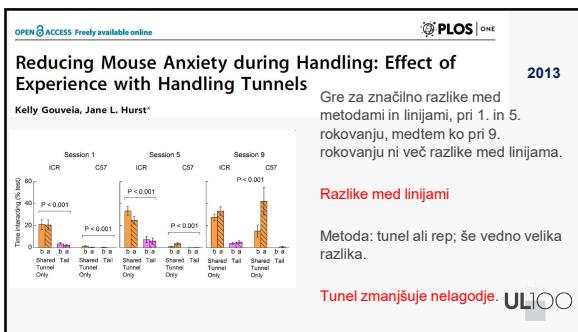
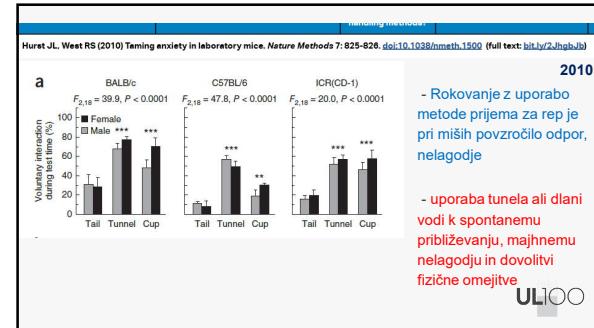
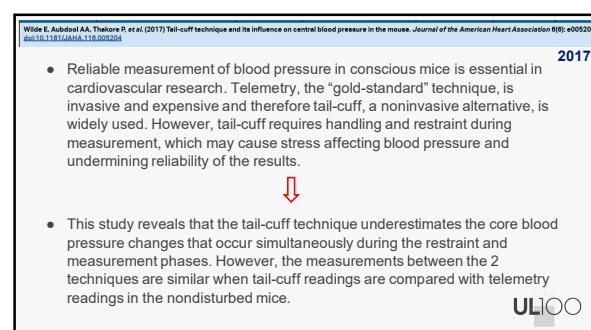
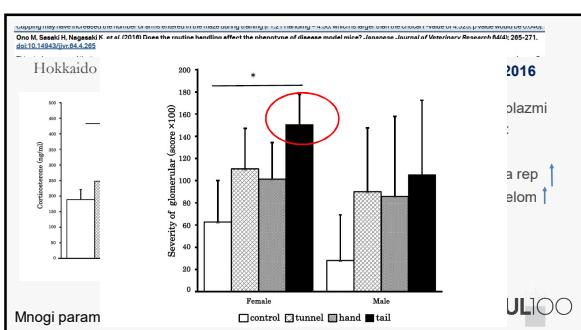
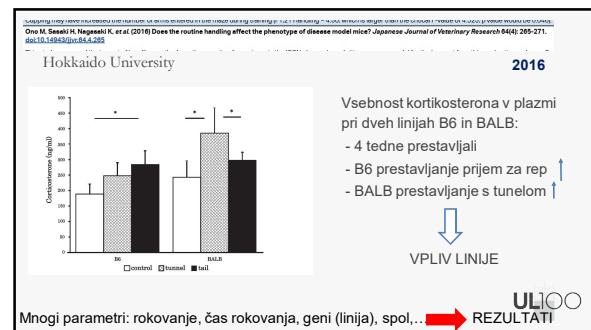
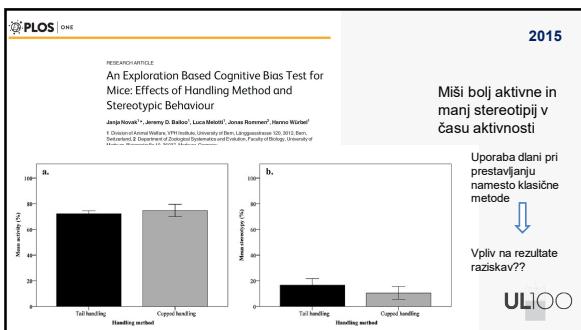
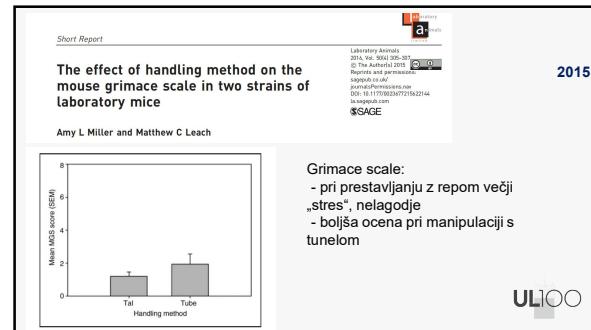
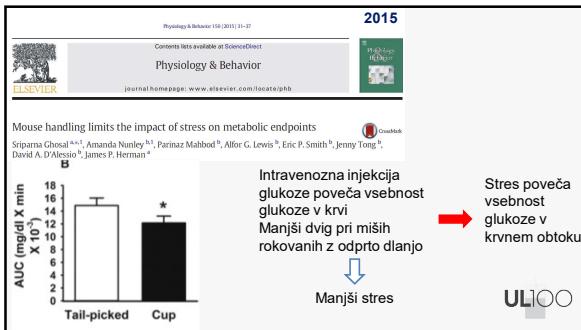


Nove metode rokovanja – predstavitev rezultatov študij

Tatjana PIRMAN
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SCIENTIFIC REPORTS

OPEN Handling method alters the hedonic value of reward in laboratory mice

Jasmine M. Clarkson¹, Dominic M. Dwyer¹, Paul A. Flecknell², Matthew C. Leadbeater¹ & Candy Rowe¹

2018

A) Barose Concentration
B) Lure Choice (%)

- Miši, ki so jih prestavljali s tunelom so spile več vode z dodatkom sladkorja v primerjavi z mišmi, ki so jih prestavljali s prijemom za rep.
- Več lizanja je bilo pri miših, ki so jih prestavljali s tunelom in pri večji koncentraciji sladkorja.

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In conclusion, we would strongly advocate that, wherever possible, mice should be handled using a tunnel and not by their tails. Tunnel handling is a simple yet effective refinement that has the potential to not only significantly improve animal welfare but also scientific data quality. Based on our own findings and those of others, we recommend that research institutions should seek to introduce and widely implement tunnel handling as a refinement to their husbandry procedures, and that published protocols for handling mice are revised.

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FULL PAPER
2018
The Journal of Veterinary Medical Science
Laboratory Animal Science

Tunnel use facilitates handling of ICR mice and decreases experimental variation

Yu NAKAMURA¹ and Kaoru SUZUKI^{1,2*}

Primerjava tunel – rep ICR UPORABA TUNELA:

- Poveča prostovoljno interakcijo, kljub vsakodnevni gavaži
- Lažje rokovanje
- Zmanjša nelagodje
- Zmanjša variabilnost rezultatov pri farmakoloških testih

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Roughen J, Sevenoake T (2018) Welfare and scientific considerations of tattooing and ear-tagging for mouse identification. *Journal of the American Association for Laboratory Animal Science* 59(2):142-153. doi:10.30802/jalas-jalas-18-200002 (Full text: <http://jals.us/2uQwLd>)

2018

Tetoviranje in označevanje ušes:

Z uporabo tunelov:

- večja interakcija, kljub „fiksaciji“, tetoviranju ali označevanju
- nižja stopnja bolečine glede na „grimace scores“
- vseskozi bolj aktivne

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Gouveia in Hurst (v pripravi za objavo)

Metoda rokovanja ima velik vpliv na nelagodje in interakcijo

Ob uporabi tunela pri subkutanem injiciraju s fiksacijo v dlani ni vpliva

After 1st injection
After 5th injection

BALB/c samice C – kontrola, samo vzdigniti; S+I – scruff + injiciranje

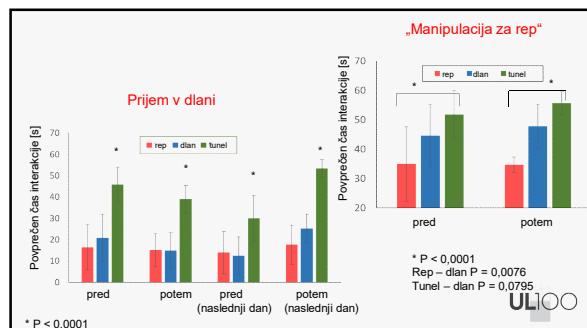
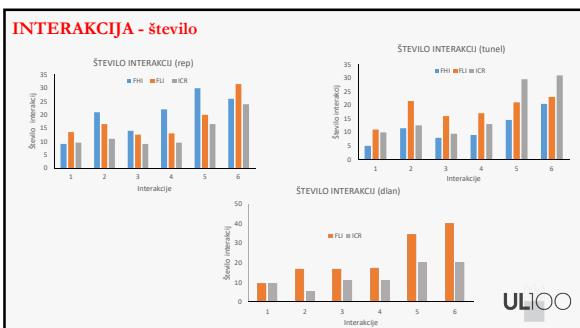
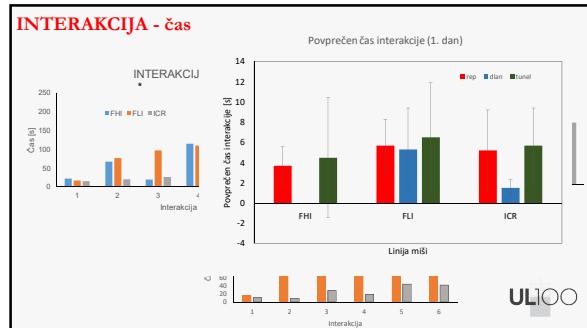
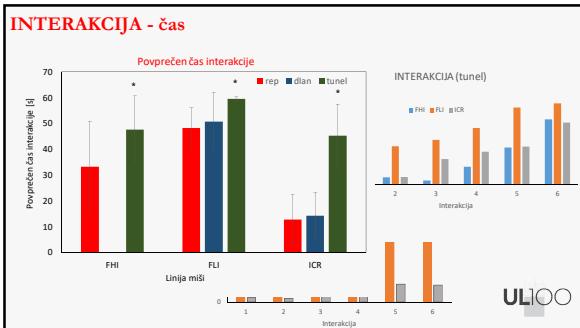
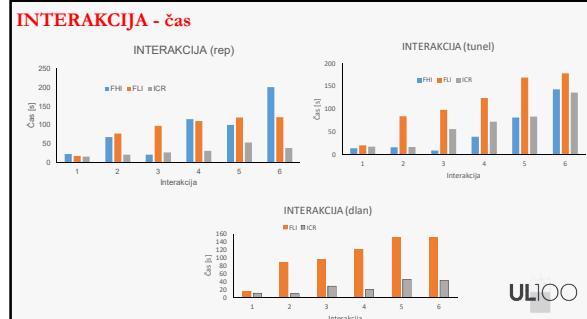
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Kaj smo do sedaj ugotovili?

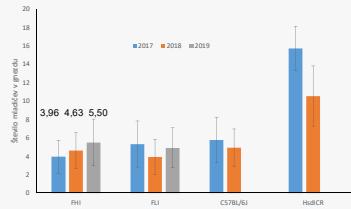
- Za prostovoljno interakcijo (pristop) miši: tunel > dlan > prijem za rep
- Ddobrobit živali zaradi rokovanja: več študij različnih avtorjev
- Dobrobit živali zaradi uporabe tunelov/dlan: fiziološke študije in študije obnašanja
- Trajanje omejite tudi 60 s ali več (le prijem za rep): nelagodje ↑
- Kratkotrajna izkušnja s tunelom (2 s., 10 d): nelagodje ↓
- Prestavljanje s tunelom: časovno enako, kot za rep
- Uporaba tunela primerna: za skakajoče linje (mladiče), dlan manj
- „Scruff“ ne iznini vpliva tunela
- Vedenjske študije: rokovanje s tunelom ali dlanjo > prijem za rep
- Glukozna toleranca: rokovanje z dlanjo > prijem za rep
- Odziv na nagrado: tunel, dlan > prijem za rep

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NAŠI REZULTATI

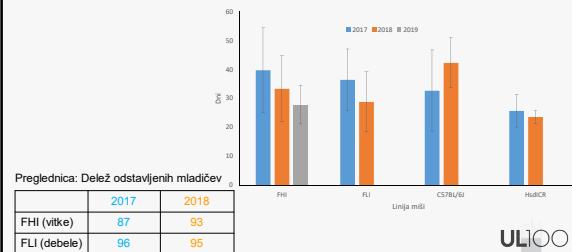
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Velikost gnezda – število skotenih mladičev



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Čas med enim in drugim gnezdom



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Slovenian Research Agency
University of Ljubljana
Biotechnical Faculty

Prof. dr. Simon HORVAT
[NC3R mouse handling](#)

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