

Manuscript “**Cinnamaldehyde treatment during adolescence improves white and brown adipose tissue metabolism in a male rat model of early obesity**”

Food & Function

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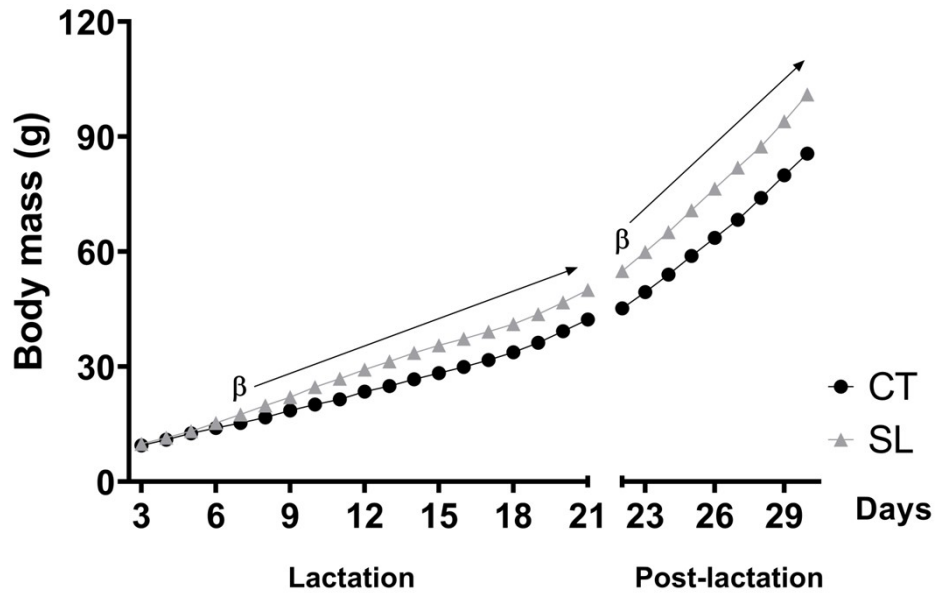
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Karen Jesus Oliveira

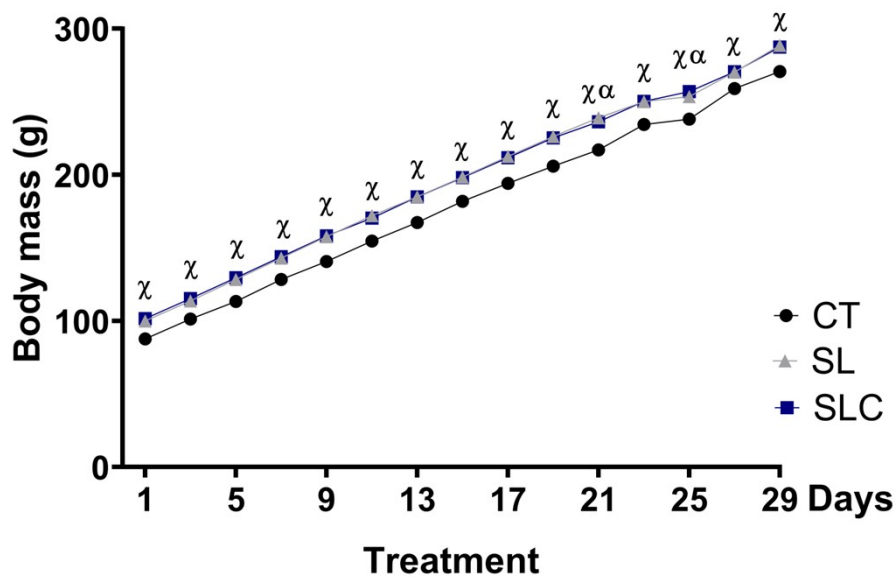
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S1: Gene sequences used to assess mRNA expression.

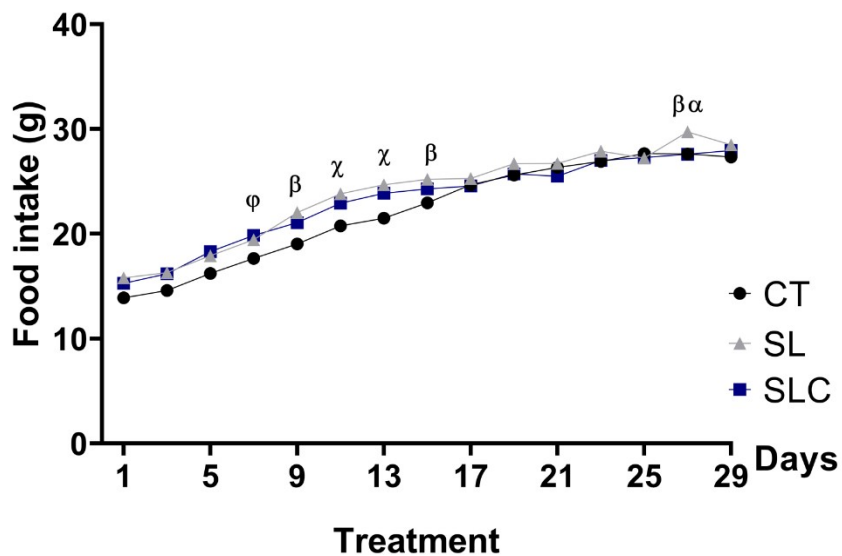
Gene	Protein	Sequence
<i>Acaca</i>	ACC1	Forward 5'-GCCTTACAGGATGGTTTGGCCTTT-3' Reverse 5'-AACAAATTCTGCTGGCGAAGCCAC-3'
<i>Adrb3</i>	AR β 3	Forward 5'-CGTTGCTTGTCTTTCTGTCTT-3' Reverse 5'-AGAACTCACCGCTCAACAG-3'
<i>Atp5f1b</i>	ATP5B	Forward 5'-GCATTTAGGGGAGAGCACCG-3' Reverse 5'-TTTTGATTGGTGCCCCCGAA-3'
<i>Cox4i1</i>	COX4I1	Forward 5'-CAGTGGCAGAATGTTGGCTA-3' Reverse 5'-GCACACCGAAGTAGAAATGGC-3'
<i>Dgat2</i>	DGAT2	Forward 5'-AGGCCTTGATGGTTTCTATCCA-3' Reverse 5'-GCTGCCCTTCCCCAATTAAC-3'
<i>Fasn</i>	FAS	Forward 5'-GTCACAGTGTCTCAGAGTTG-3' Reverse 5'-AGGCCAGTGCATTAAGGATG-3'
<i>Fgf21</i>	FGF21	Forward 5'-CAAATCCTGGGTGTCAAAGC-3' Reverse 5'-GCCTCAGACTGGTACACATTG-3'
<i>Gapdh</i>	GAPDH	Forward 5'-TCTCTGCTCCTCCCTGTT-3' Reverse 5'-GTAACCAGGCGTCCGATA-3'
<i>Il1b</i>	IL1 β	Forward 5'-TTGTGCTTGTCTCTCTCC-3' Reverse 5'-GTGCTGTCTGACCCATGT-3'
<i>Il6</i>	IL6	Forward 5'-TCCTACCCCAACTTCCAATGCTC-3' Reverse 5'-TTGGATGGTCTTGGTCCTTAGCC-3'
<i>Lep</i>	Leptina	Forward 5'-CCATCTTGGACAAACTCAGAATG-3' Reverse 5'-GACCATTGTCACCAGGATCA-3'
<i>Lpl</i>	LPL	Forward 5'-GCTTGTCAATTCTCAGTTCCAGA-3' Reverse 5'-AGCCAAGAGAAGCAGTAAGATG-3'
<i>Ndufb8</i>	NADH dehydrogenase	Forward 5'-TGAACCGATACACTGGGACCT-3' Reverse 5'-AGCCACAAAGCCGAAGAGAT-3'
<i>Ppara</i>	PPAR α	Forward 5'-TTCAATGCCCTCGAACTGGA-3' Reverse 5'-GCACAATCCCCTCCTGCAAC-3'
<i>Pparg</i>	PPAR γ	Forward 5'-AGCAGGTTGTCTTGGATGTC-3' Reverse 5'-GAATTAGATGACAGTGACTIONTGGC-3'
<i>Ppargc1a</i>	PGC1 α	Forward 5'-ACTGAGCTACCCTTGGGATG-3' Reverse 5'-TAAGGATTTCCGGTGGTGACA-3'
<i>Rplp0</i>	36 β 4	Forward 5'-TTCCCACTGGCTGAAAAGGT-3' Reverse 5'-CGCAGCCGCAAATGC-3'
<i>Sdhb</i>	SDH	Forward 5'-TCGCCATTTACCGATGGGAC-3' Reverse 5'-GCACCATCGGTCCACACTTAT-3'
<i>Sreb1c</i>	SREBP1c	Forward 5'-AAAACCAGCCTCCCCAGAGC-3' Reverse 5'-CCAGTCCCCATCCACGAAGA-3'
<i>Tnfa</i>	TNF α	Forward 5'-GTCTTTGAGATCCATGCCATTG-3' Reverse 5'-AGACCCTCACACTCAGATCA-3'
<i>Ucp1</i>	UCP1	Forward 5'-TCAACACTGTGGAAAGGGACGACT-3' Reverse 5'-TCTGCCAGTATGTGGTGGTTCACA-3'
<i>Uqcrc2</i>	UQCRC2	Forward 5'-CCGGGTCCTTCTCGAGATTTTAT-3' Reverse 5'-AACTCAAGTTCCTGAGGCTGC-3'



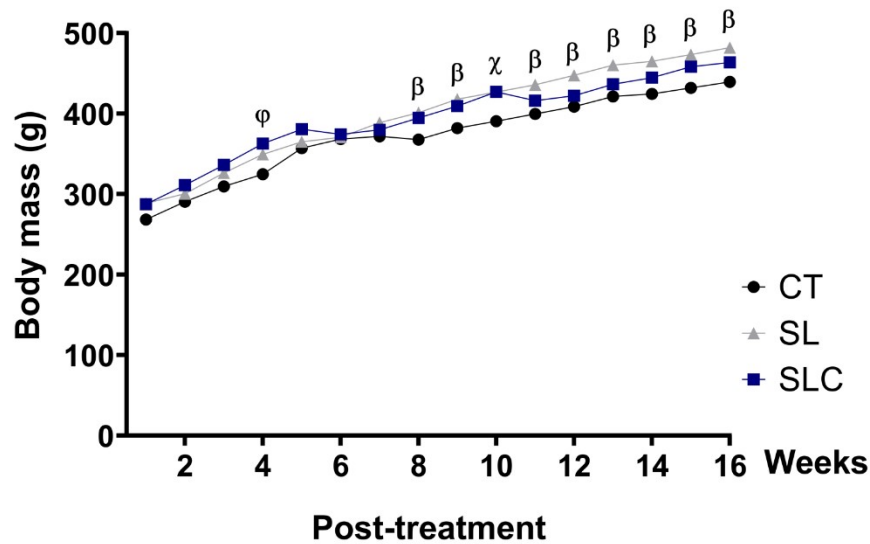
S2: Body mass evolution of control litters (●) and small litter (▲) during lactation and post-lactation period. The body mass was monitored daily. Control litter (CT); small litter (SL). ' β ' Statistical differences of SL vs CT group. Differences between groups at the corresponding time points were analyzed by Two-way ANOVA followed by Bonferroni post-test.



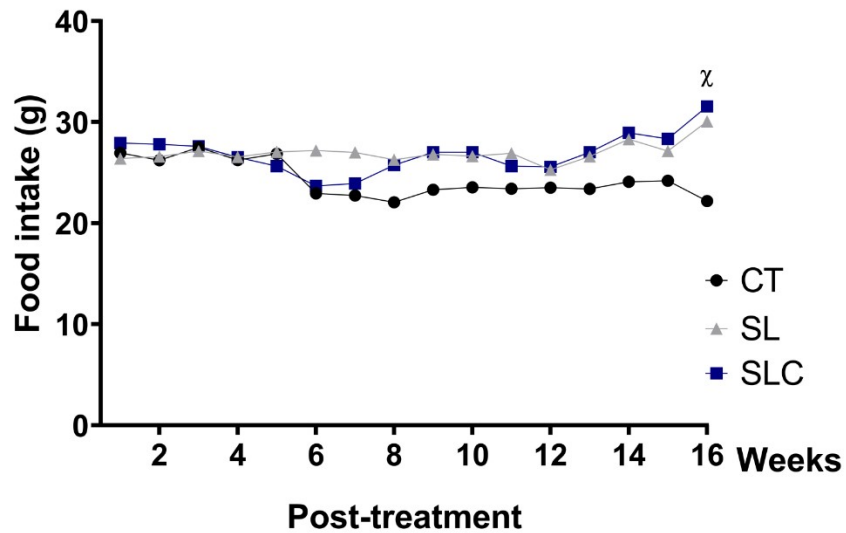
S3: Body mass evolution of CT group (●), SL group (▲), and SLC group (■) during treatment (30 days of age until 60 days of age). The body mass was monitored 3 times a week. Control group (CT); small litter group (SL); small litter group treated with cinnamaldehyde (SLC). ' χ ' Statistical differences of SL and SLC vs CT group. ' α ' Statistical differences of SL vs SLC group. Differences between groups at the corresponding time points were analyzed by Two-way ANOVA followed by Tukey post-test.



S4: Food intake evolution of CT group (●), SL group (▲), and SLC group (■) during treatment (30 days of age until 60 days of age). The food intake was monitored 3 times a week. Control group (CT); small litter group (SL); small litter group treated with cinnamaldehyde (SLC). ' ϕ ' Statistical differences of SLC vs CT group. ' β ' Statistical differences of SL vs CT group. ' χ ' Statistical differences of SL and SLC vs CT group. ' α ' Statistical differences of SL vs SLC group. Differences between groups at the corresponding time points were analyzed by Two-way ANOVA followed by Tukey post-test.



S5: Body mass evolution of CT group (●), SL group (▲), and SLC group (■) in the post-treatment period (60 days of age until 180 days of age). The body mass was monitored 3 times a week and is represented in the graphic as a weekly measure. Control group (CT); small litter group (SL); small litter group treated with cinnamaldehyde (SLC). ‘ ϕ ’ Statistical differences of SLC vs CT group. ‘ β ’ Statistical differences of SL vs CT group. ‘ χ ’ Statistical differences of SL and SLC vs CT group. Differences between groups at the corresponding time points were analyzed by Two-way ANOVA followed by Tukey post-test.



S6: Food intake evolution of CT group (●), SL group (▲), and SLC group (■) in the post-treatment period (60 days of age until 180 days of age). The food intake was monitored 3 times a week and is represented in the graphic as a weekly measure. Control group (CT); small litter group (SL); small litter group treated with cinnamaldehyde (SLC). ‘ χ ’ Statistical differences of SL and SLC vs CT group. Differences between groups at the corresponding time points were analyzed by Two-way ANOVA followed by Tukey post-test.