How is lower intake constructed?
Ingestive microstructure after semaglutide initiation.
(ad interim analysis of the DIGRAT study)

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Who Pays?

Out-of-pocket, side effects, lost time

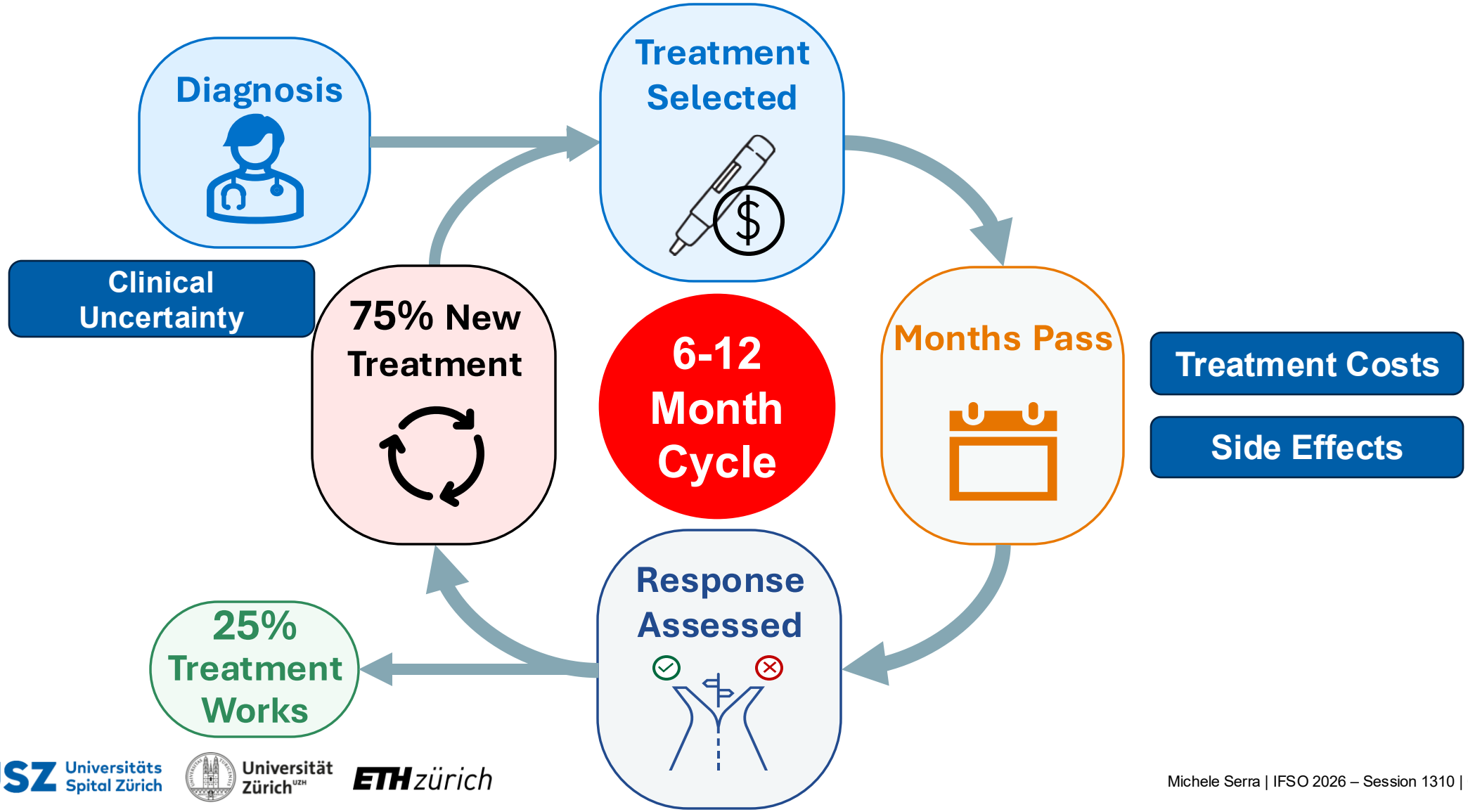
Drug cost, monitoring, switching

Delayed optimisation

Taxpayer expenditure on research funding
US + EU | CHF 2.5B

CHF 3.52 Trillion

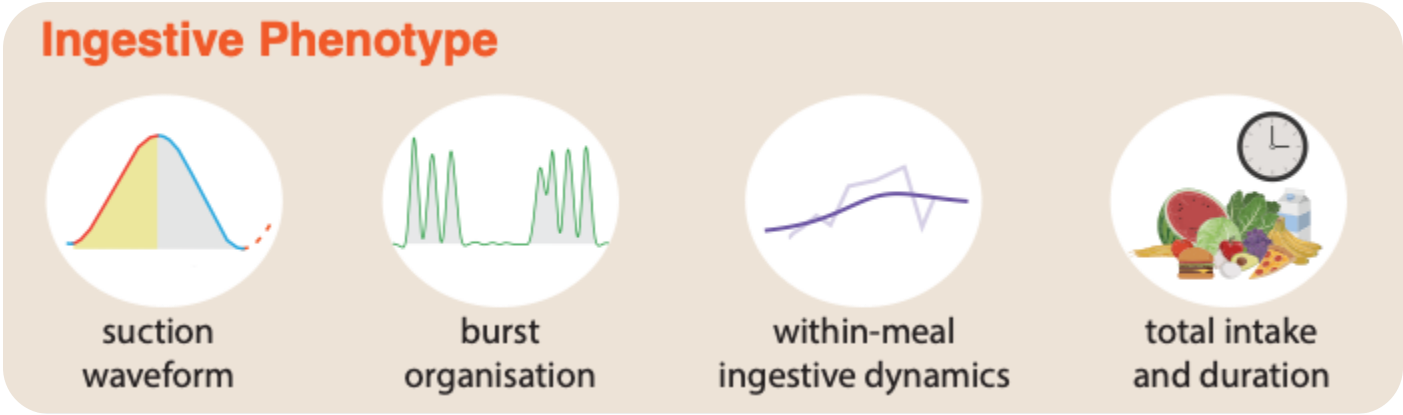
The Patient–Treatment Journey



The First Behaviour

Survival after birth

Diseases later in life



People keep eating less even when they no longer report less hunger

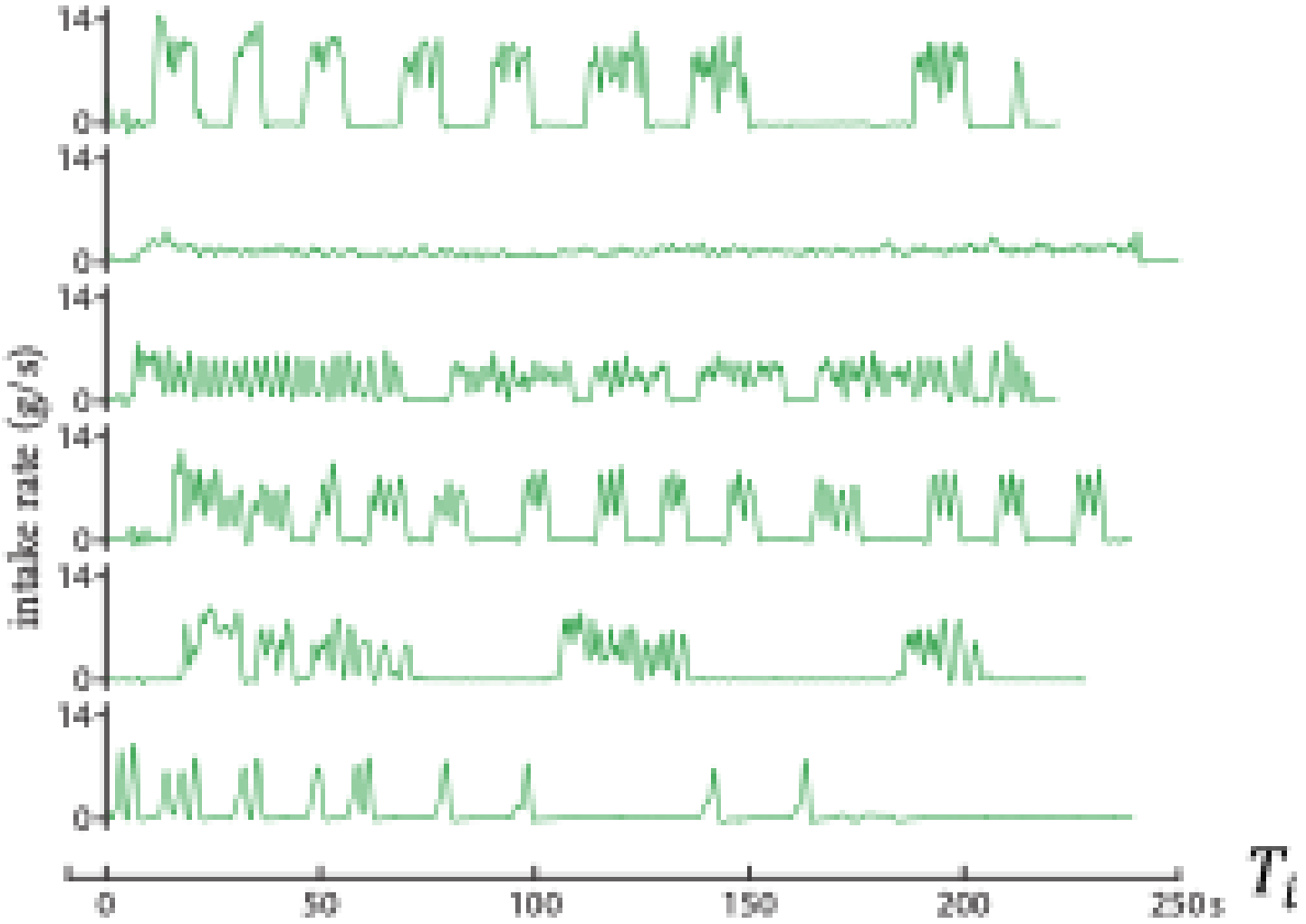
	Week 20	Week 40	Week 60
What they ate	**–295 kcal** lower than placebo	**–250 kcal** lower than placebo	**–238 kcal** lower than placebo
What they reported	**Lower hunger and food preoccupation than placebo**	No significant between-group difference	No significant between-group difference

Friedrichsen et al., 2021. https://doi.org/10.1111/dom.14280
Tronieri et al., 2026. https://doi.org/10.1016/j.ajcnut.2026.101403

The same lower total can be built in very different ways

Representative graphics

Variability in the microstructure of ingestive behavior



Unpublished data

Weight is the result, ratings are the feeling, the meal is the behavior

Accumulated outcome

Did the treatment work?

- Body weight
- Body composition
- Metabolic and clinical measures

Measured

Subjective experience

How does it feel?

- Hunger and fullness
- Prospective consumption
- Nausea and tolerability

Reported

Observed ingestive process

How is the meal built?

- Duration and ingestion rate
- Individual drinking events
- Burst organisation and progression

Recorded

COMPLEMENTARY LAYERS

Half the intake, half the time, at the same rate

–417 kcal
–127 s

Fewer drinking events, not smaller ones

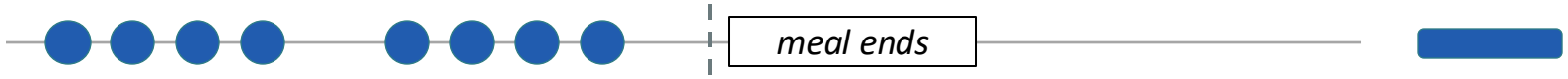
–43% events
–44% bursts

Two ingestive phenotypes at baseline, independent of body weight

Behavior reorganizes first, weight follows

Semaglutide causes earlier termination of the whole meal

Earlier termination
WHOLE MEAL



Melson et al., 2024. https://doi.org/10.1038/s41366-024-01473-y

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Barbara McMahon

Jan Han

Emma Allera

Thalia Grennan

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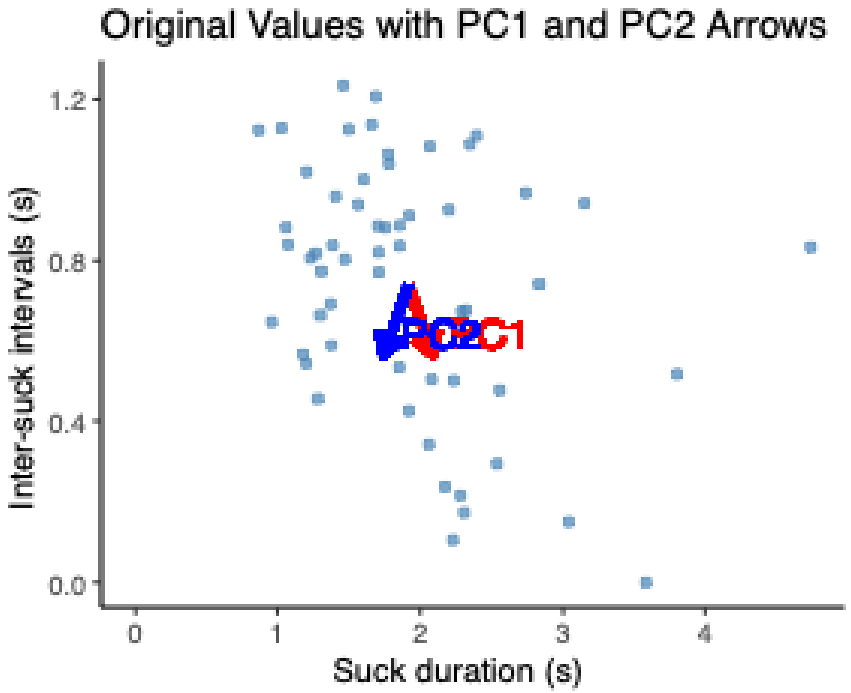
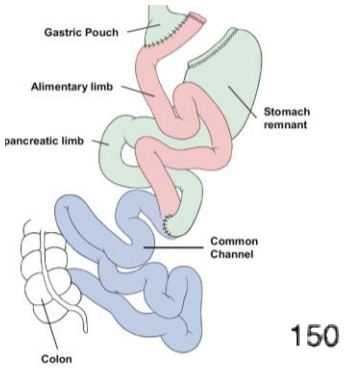
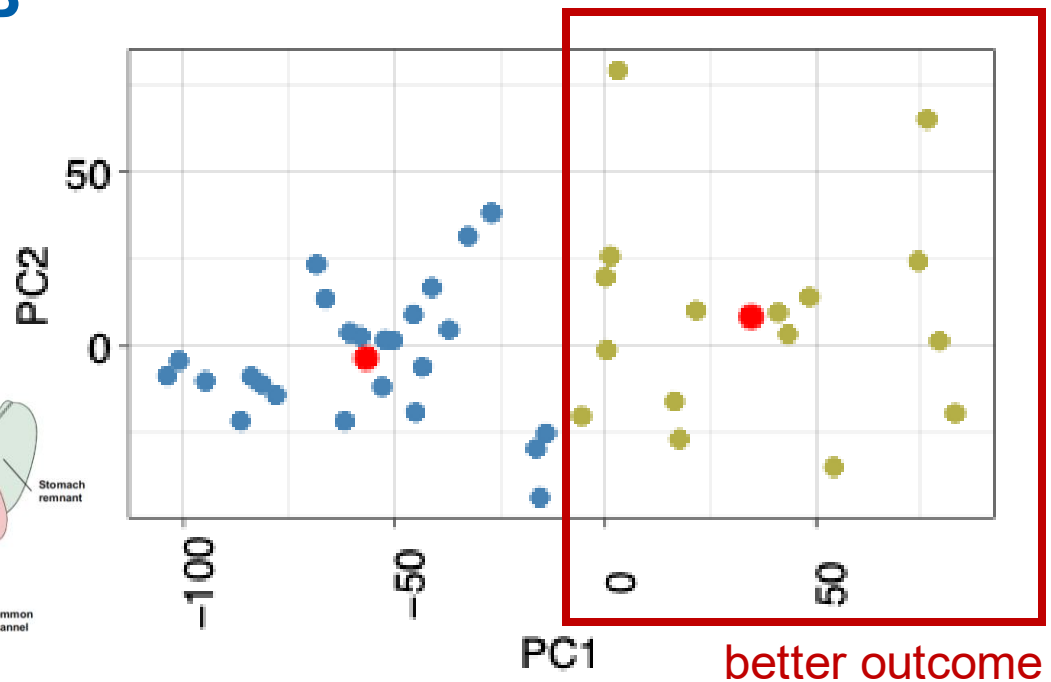
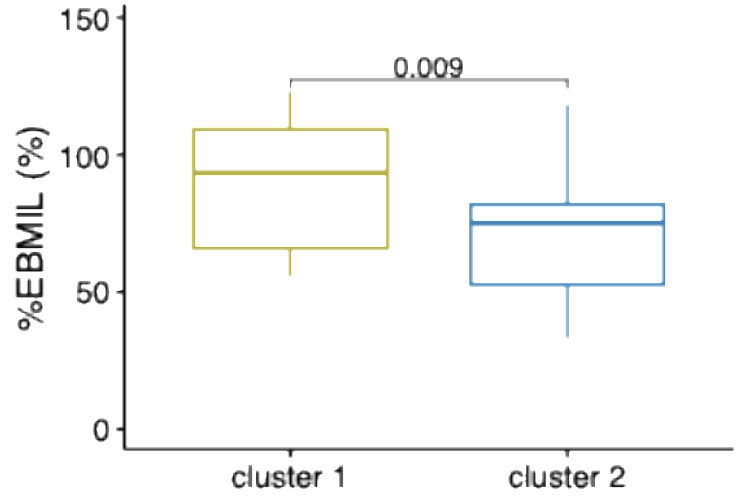
Predictive value 5 years after RYGB



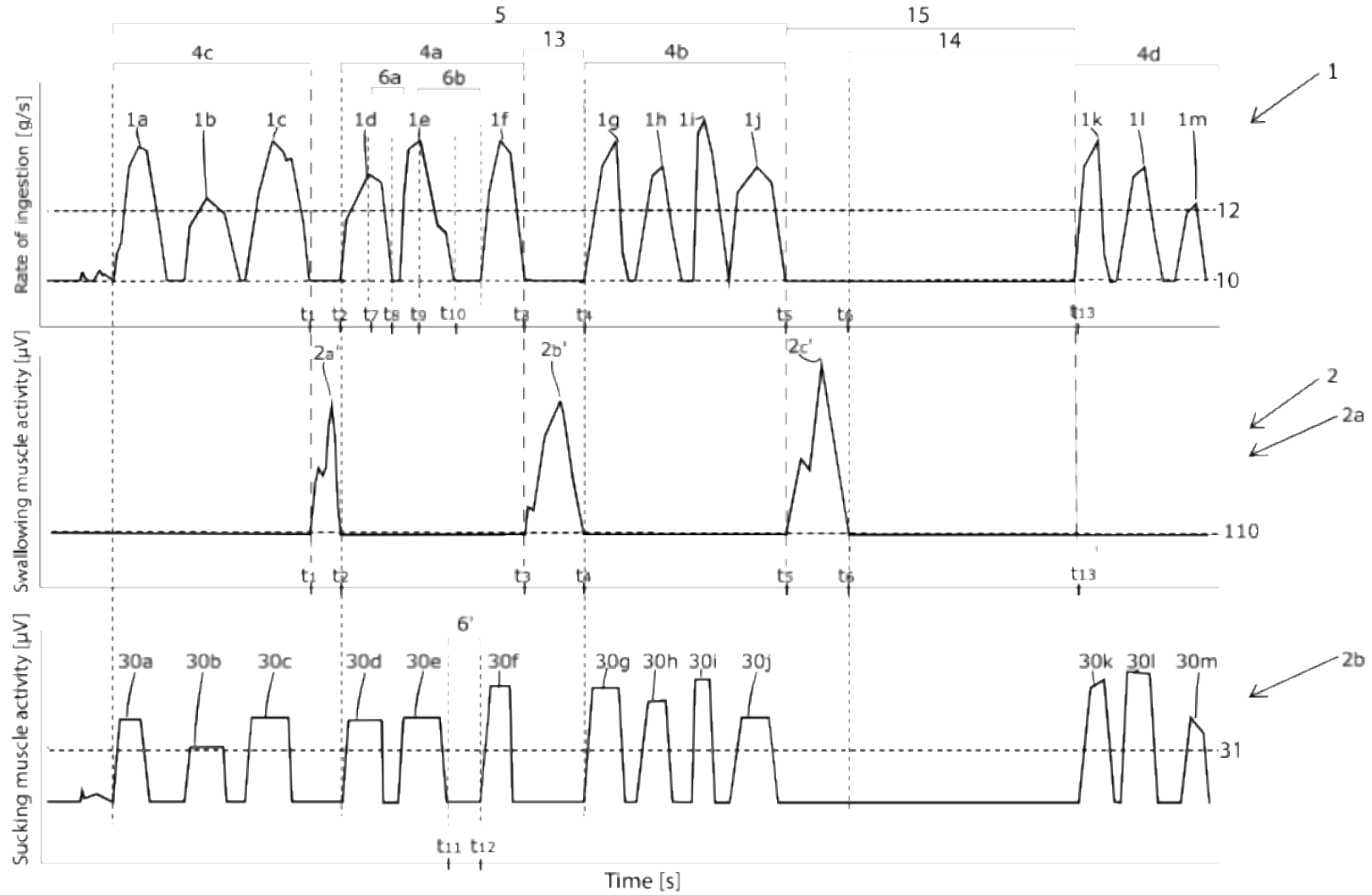




better outcome



Electrophagography through combination of time series



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Unpublished data