PO-042

Proposal for a comparison of relative differences in fundamental botanical homoeopathy research

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Question: To standardise a statistical approach to comparing relative differences in homoeopathy research.

Background: Betti et al. (1997) and Brizzi et al. (2005) reported a stimulation of the longitudinal growth of wheat stalks through treatment of the seeds with high potencies of arsenic. On replicating the experiment however, Binder et al. (2005) found a significant decrease in longitudinal growth. Hamann et al. (2003) described biphasic effects of seed germination under high dilutions of gibberellic acid.

Several independent researchers working at the Interuniversity College found significantly *reduced* longitudinal growth of wheat stalks in groups treated with gibberellic acid 30 × (stepwise diluted and succussed, 10e–30: G 30 ×) as compared with groups treated with water 30 × (W 30 ×) when experiments were performed in autumn or spring. However, replications of this experiment in winter produced *higher* values in the G 30 × groups.

From this one could draw the global conclusion that the G 30 × model is not reliably reproducible and that G 30 × and W 30 × do not differ for all data pooled.

On the other hand, the data appear too well ordered to allow the conclusion that the tested substance(-s) have no effect. On the contrary, there does appear to be an effect, and it even proves to be statistically homogeneous within the individual trials.

Methodological proposal: To date the results obtained with this model have been analysed by means of variance analyses comparing the growth rates under G 30 × and W 30 ×. Variance analyses were also performed to compare growth within the individual trials and within the G 30 × and the W 30 × group.

For future evaluations we propose using the *relative* difference between groups as an absolute value for the following calculations, regardless of which group showed more growth.

This may permit a more meaningful interpretation of seemingly contradictory results as they are so often observed in homoeopathy research. Our interpretation of the botanical trials is that G 30 × (and possibly also W 30 ×) gives a physiological stimulus which the organism may respond to in different directions.

Table 3

Trail	Researcher	Decrease/increase (%)
1	Pfleger 1 Autumn 2006	−6.7
2	Hofäcker Autumn 2007	−11.2
3	Pfleger 2 Spring 2008	−6.2
4	Reich Autumn 2008	−3.8
5	Reischl Winter 2009	+7.5
6	Thieves 1 Winter 2009	+9.7
7	Thieves 1 Winter 2009	+0.4
8	Pfleger Winter 2009	+10.0

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