**Author's response to reviews**

**Title:** Synergetic down-regulation of the 67kDa laminin receptor by the green tea (Camellia sinensis) secondary plant compound epigallocatechin gallate: A new gateway in metastasis prevention?

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**Author's response to reviews:** see over
Dear Carmela Quidoles,

a scientific working native speaker from our university conducted a proof reading of our abstract. I hope we improved it to your satisfaction that way. I revised the uploaded manuscript and as well pointed out all changes in the abstract below here.

Sorry again for the delay!

Best regards,

Jakob Müller

Background

In traditional Chinese medicine, green tea is considered to have a life prolonging application. This classification may originate from its rich content of antioxidant tea polyphenols and hence, the potential to prevent cancer. This study investigates the role of the major tea secondary plant compound epigallocatechin gallate (EGCG) for inhibitory effects on the metastasis associated 67kDa laminin receptor (67LR).

Methods

In order to clarify the impact of EGCG on the small RNA silenced expression of the 67LR, we applied an adenoviral based intestinal in vitro knockdown model (porcine IPEC-J2 cells). Reverse transcription quantitative real-time polymerase chain reaction (RT-qPCR) was conducted for analysis of the gene expression levels of the 67LR post application of physiological and pharmacological concentrations of EGCG (1.0 g/l, 0.1 g/l, 0.02 g/l and 0.002 g/l).

Results

We report a regulative co-acting of the green tea polyphenol and the 67LR, which is known to be an EGCG receptor. The RNA interference suppressed expression level of the 67LR is selectively and highly significantly suppressed under the impact of EGCG in a synergetic manner.

Conclusions

Our findings suggest that the 67LR-expression is regulatory affected by EGCG via a negative feedback loop. The explicit occurrence of that effect in synergy of a small RNA pathway and a plant derived drug manifests a new principle of action. It may help to find an explanation for the many unsolved health promoting activities of other natural pharmaceuticals.