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Re: Commentary on R. Vent-Schmidt et al. 2017 by Drs. Todd and Zelinka

We would like to thank Drs. Todd and Zelinka for their careful analysis and thoughtful comments on our paper. We agree with their criticisms, and would like to emphasize that further research is necessary to conclusively link the process of autophagy to the effects of valproic acid that we observed in our study. In our opinion, our most important observation is that therapeutic efficacy of pharmacological treatments for retinal degeneration can be strongly linked to genotype; efficacy can vary dramatically even among retinal degenerations caused by mutations within a single gene, reflecting our limited knowledge of therapeutic and disease mechanisms. Conceivably, this may apply to treatments other than valproic acid, and genes other than rhodopsin. Thus, genotyping of patients in clinical trials in order to correlate genotype with treatment outcome is extremely important. Our results also serve as an example for other inherited disorders; dependence of treatment efficacy on genotype is unlikely to be unique to retinitis pigmentosa, and is well established for disorders such as cancer (Bryant et al., 2005).

Sincerely,

R.Y.J. Vent-Schmidt and O.L. Moritz.
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Reference: Bryant HE, Schultz N, Thomas HD, Parker KM, Flower D, Lopez E, Kyle S, Meuth M, Curtin NJ, Helleday T (2005) Specific killing of BRCA2-deficient tumours with inhibitors of poly(ADP-ribose) polymerase. Nature 434:913–917