

## Prize for Best DBMR Publication 2022

The prize is awarded in recognition of an outstanding publication published during the 2022 calendar year led by an investigator from the DBMR.

### Best DBMR Publication 2022

At the DBMR Day of BioMedical Research 2023 on July 5 2023, it was announced that the winner of the Best DBMR Publication 2022 was:



**Dr. Jakob Zimmermann**

Department for BioMedical Research  
Systems Biomedicine of Cellular Development and Signaling in  
Health and Disease

For his paper *Noninvasive assessment of gut function using transcriptional recording sentinel cells*, *Science* 376,eabm6038(2022).

DOI:[10.1126/science.abm6038](https://doi.org/10.1126/science.abm6038)

A long-standing problem in gastroenterology has been the difficulty to determine the luminal conditions of the gut to aid diagnosis and treatment decisions. This issue was addressed in this study by using transcriptional recording sentinel cells. These modified *E. coli* bacteria generate permanent records of their own gene expression as they travel along the gastrointestinal tract. Using samples collected from the feces, the scientists were able to deduce the gut conditions even of proximal gut sections in a noninvasive way. Besides reporting on dietary changes and microbiota alterations, sentinel cells informed about gut inflammation in a severity-dependent manner. Overall, transcriptional recording sentinel cells noninvasively report on gut function and may facilitate novel therapeutic approaches in the future.

The DBMR congratulates Dr. Zimmermann for the award and all co-authors for the excellent publication!