

## List of publications

### 2026

- Villani, L., Emhart, L. & **Gibhardt, J.** (2026) From the known to the unknown: the diverse family of TetR-like regulators in *Bacillus subtilis*. *Curr Opin Microbiol.* in press.
- Gibhardt, J.**, Lieber, M. M., Götz, C. S., Völker, F., Blank, L. M., Forchhammer, K., Jayaraman, V., Noda-Garcia, L. & Commichau, F. M. (2026) Moonlighting in metabolism: bifunctional enzymes control nitrogen metabolism in *Bacillus subtilis*. *Microbiol Mol Biol Rev.* online ahead of print: e0043025. doi: 10.1128/membr.00430-25.
- Herdan, S., Kohm, K., Warneke, R., Roth, F., Görge, N., Hoang, T. D., Schunke, E., Häse, C. C., Rappsilber, J., Fritz, G., Commichau, F. M., **Gibhardt, J.** & Steuber, J. (2026) The evolution of a Na<sup>+</sup>-sensitive *Vibrio cholerae* mutant unmasks the moonlighting aminopeptidase PepA as a regulator of *nhaB* Na<sup>+</sup>/H<sup>+</sup> antiporter gene expression. *bioRxiv* [Preprint]: 2026.03.13.711655. doi: 10.64898/2026.03.13.711655v2.

### 2025

- Gibhardt, J.**, Hoang, T. D., Severinov, K., Khodorkovskii, M. A. & Morozova, N. E. (2025) Plasmid copy number affects the DNA methylation-driven expression dynamics of the *Cfr*BI restriction-modification system and impacts phage restriction. *bioRxiv* [Preprint]: 2025.12.04.692298. doi: 10.64898/2025.12.04.692298.
- Völker, F., Maaß, S., Phan, A. N. T., **Gibhardt, J.**, Commichau, F. M. & Blank, L. M. (2025) High glutamate demand enables simultaneous consumption of glycerol and citrate despite carbon catabolite repression in engineered *Bacillus subtilis* strains. *Metab Eng.* 91: 379–388. doi: 10.1016/j.ymben.2025.06.003.
- Gibhardt, J.** & Commichau, F. M. (2025) c-di-AMP is an envoy of inflammation. *Nat Chem Biol.* 21: 1132-1133. doi: 10.1038/s41589-025-01931-2.

### 2023

- Schwedt, I., Wang, M., **Gibhardt, J.** & Commichau, F. M. (2023) Cyclic di-AMP, a multifaceted regulator of central metabolism and osmolyte homeostasis in *Listeria monocytogenes*. *MicroLife.* 4: uqad005. doi: 10.1093/femsml/uqad005.

### 2022

- Wang, M., Wamp, S., **Gibhardt, J.**, Holland, G., Schwedt, I., Schmidtke, K., Schreiber, K., Halbedel, S., & Commichau, F. M. (2022) Adaptation of *Listeria monocytogenes* to perturbation of c-di-AMP metabolism underpins its role in osmoadaptation and identifies a fosfomycin uptake system. *Environ Microbiol.* 24: 4466-4488. doi: 10.1111/1462-2920.16084.

### 2021

- Hertel, R., **Gibhardt, J.**, Martienssen, M., Kuhn, R., & Commichau, F. M. (2021) Molecular mechanisms underlying glyphosate resistance in bacteria. *Environ Microbiol.* 23: 2891-2905. doi: 10.1111/1462-2920.15534.

### 2020

- Gibhardt, J.**, Heidemann, J. L., Bremenkamp, R., Rosenberg, J., Seifert, R., Kaefer, V., Ficner, R., & Commichau, F. M. (2020) An extracytoplasmic protein and a moonlighting enzyme modulate synthesis of c-di-AMP in *Listeria monocytogenes*. *Environ Microbiol.* 22: 2771-2791. doi: 10.1111/1462-2920.15008.

**2019**

- Gibhardt, J.**, Hoffmann, G., Turdiev, A., Wang, M., Lee, V. T., & Commichau, F. M. (2019) c-di-AMP assists osmoadaptation by regulating the *Listeria monocytogenes* potassium transporters KimA and KtrCD. *J Biol Chem.* 294: 16020-16033. doi: 10.1074/jbc.RA119.010046.
- Quintana, I. M., **Gibhardt, J.**, Turdiev, A., Hammer, E., Commichau, F. M., Lee, V. T., Magni, C., & Stülke, J. (2019) The KupA and KupB proteins of *Lactococcus lactis* IL1403 are novel c-di-AMP receptor proteins responsible for potassium uptake. *J Bacteriol.* 201: e00028-00019. doi: 10.1128/JB.00028-19.
- Hauf, S., Herrmann, J., Miethke, M., **Gibhardt, J.**, Commichau, F. M., Müller, R., Fuchs, S., & Halbedel, S. (2019) Aurantimycin resistance genes contribute to survival of *Listeria monocytogenes* during life in the environment. *Mol Microbiol.* 111: 1009-1024. doi: 10.1111/mmi.14205.
- Wicke, D., Schulz, L. M., Lentjes, S., Scholz, P., Poehlein, A., **Gibhardt, J.**, Daniel, R., Ischebeck, T., & Commichau, F. M. (2019) Identification of the first glyphosate transporter by genomic adaptation. *Environ Microbiol.* 21: 1287-1305. doi: 10.1111/1462-2920.

**2018**

- Commichau, F. M., **Gibhardt, J.**, Halbedel, S., Gundlach, J., & Stülke, J. (2018) A delicate connection: c-di-AMP affects cell integrity by controlling osmolyte transport. *Trends Microbiol.* 26: 175-185. doi: 10.1016/j.tim.2017.09.003.

**2017**

- Gundlach, J., Herzberg, C., Kaefer, V., Gunka, K., Hoffmann, T., Weiss, M., **Gibhardt, J.**, Thürmer, A., Hertel, D., Daniel, R., Bremer, E., Commichau, F. M., & Stülke, J. (2017) Control of potassium homeostasis is an essential function of the second messenger cyclic di-AMP in *Bacillus subtilis*. *Sci Signal.* 10: eaal3011. doi: 10.1126/scisignal.aal3011.

**2016**

- Großhennig, S., Ischebeck, T., **Gibhardt, J.**, Busse, J., Feussner, I. & Stülke, J. (2016) Hydrogen sulfide is a novel potential virulence factor of *Mycoplasma pneumoniae*: characterization of the unusual cysteine desulfurase/desulphydrase HapE. *Mol Microbiol.* 100: 42-54. doi: 10.1111/mmi.13300.
- Rismondo, J., **Gibhardt, J.**, Rosenberg, J., Kaefer, V., Halbedel, S., & Commichau, F. M. (2016) Phenotypes associated with the essential diadenylate cyclase CdaA and its potential regulator CdaR in the human pathogen *Listeria monocytogenes*. *J Bacteriol.* 198: 416-426. doi: 10.1128/JB.00845-15.