

* Corresponding author

A. Peer-reviewed publications

A.1 Original publications

48. Della Corte D., van Beek H.L., Syberg F., Schallmeyer M., Tobola F., Cormann K.U., Schlicker C., Baumann P.T., Krumbach K., Sokolowsky S., Morris C.J., Grünberger A., Hofmann E., Schröder G.F, **Marienhagen J.*** (2020). Engineering and application of a biosensor with focused ligand specificity. *Nat. Commun.* 11: 4851. (<https://doi.org/10.1038/s41467-020-18400-0>)
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(<https://doi.org/10.1021/acssynbio.9b00149>)
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39. Milke L., Ferreira P., Kallscheuer N., Braga, A., Vogt M., Kappelmann J., Oliveira J., Silva A. R., Rocha I., Bott M., Noack S., Faria N., **Marienhagen J.*** (2019). Modulation of the central carbon metabolism of *Corynebacterium glutamicum* improves malonyl-CoA availability and increases plant polyphenol synthesis. *Biotechnol. Bioeng.* 116: 1380-1391. (<http://dx.doi.org/10.1002/bit.26939>)
38. Aschenbrenner J., Marx P., Pietruszka J., **Marienhagen J.*** (2019). Microbial production of natural and non-natural monolignols with *Escherichia coli*. *ChemBioChem* 20: 949-954. (<http://dx.doi.org/10.1002/cbic.201800673>)
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19. Radek A., Krumbach K., Gätgens J., Wendisch V. F., Wiechert W., Bott M., Noack S.*, **Marienhagen J.*** (2014). Engineering of *Corynebacterium glutamicum* for minimized carbon loss during utilization of D-xylose containing substrates. *J. Biotechnol.* 192: 156–160. (<http://dx.doi.org/10.1016/j.jbiotec.2014.09.026>)
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(<http://dx.doi.org/10.1074/jbc.M113.522623>)
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(<http://dx.doi.org/10.1093/nar/gkt312>)
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12. Ruff A.J., **Marienhagen J.**, Verma R., Roccatano D., Genieser H-G., Niemann P., Shivange A.V., Schwaneberg U. (2012). dRTP and dPTP a complementary nucleotide couple for the Sequence Saturation Mutagenesis (SeSaM) method. *J. Mol. Catal. B Enzym.* 84: 40-47. (<http://dx.doi.org/10.1016/j.molcatb.2012.04.018>)
11. Braun A., Halwachs B., Geier M., Weinhandl K., Guggemos M., **Marienhagen J.**, Ruff A.J., Schwaneberg U., Rabin V., Torres-Pazmino D.E., Thallinger G.G., Glieder A. (2012). MuteinDB: the mutein database linking substrates, products and enzymatic reactions directly with genetic variants of enzymes. *Database* 2012. (<http://dx.doi.org/10.1093/database/bas028>)
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6. Mundhada H., **Marienhagen J.**, Scacioc A., Schenk A., Roccatano D., Schwaneberg U. (2011). SeSaM-Tv-II Generates a Protein Sequence Space that is Unobtainable by epPCR. *ChemBioChem* 12(10): 1595-1601. (<http://dx.doi.org/10.1002/cbic.201100010>)
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2. **Marienhagen J.**, Sandalova T., Sahm H., Eggeling L., Schneider G. (2008). Insights into the structural basis of substrate recognition by histidinol-phosphate aminotransferase from *Corynebacterium glutamicum*. *Acta Crystallogr. D Biol. Crystallogr.* 64: 675-685. (<http://dx.doi.org/10.1107/S0907444908009438>)
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A.2 Review articles

10. Milke L. and **Marienhagen J.*** (2020). Engineering intracellular malonyl-CoA availability in microbial hosts and its impact on polyketide and fatty acid synthesis. *Appl. Microbiol. Biotechnol.* 104: 6057-6065. (<https://doi.org/10.1007/s00253-020-10643-7>)
9. Kallscheuer N., Classen T., Drepper T., **Marienhagen J.*** (2019). Production of plant metabolites with applications in the food industry using engineered microorganisms. *Curr. Opin. Biotechnol.* 56: 7-17. (<https://doi.org/10.1016/j.copbio.2018.07.008>)
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6. Kallscheuer N., Polen T., Bott M., **Marienhagen J.*** (2017). Reversal of β -oxidative pathways for the microbial production of chemicals and polymer building blocks. *Metab. Eng.* 42: 33-42. (<http://doi.org/10.1016/j.ymben.2017.05.004>)
5. Eggeling L., Bott M., **Marienhagen J.** (2015). Novel screening methods - biosensors. *Curr. Opin. Biotechnol.* 35: 30-36. (<http://dx.doi.org/10.1016/j.copbio.2014.12.021>)
4. Schallmeyer M., Frunzke J., Eggeling L., **Marienhagen J.*** (2014). Looking for the pick of the bunch: High-throughput screening of producing microorganisms with biosensors. *Curr. Opin. Biotechnol.* 26: 148-154. (<http://dx.doi.org/10.1016/j.copbio.2014.01.005>)
3. van Summeren-Wesenhagen P.V. and **J. Marienhagen*** (2013). Putting bugs to the blush: metabolic engineering for phenylpropanoid-derived products in microorganisms. *Bioengineered* 4(6): 267-274. (<http://dx.doi.org/10.4161/bioe.23885>)
2. **Marienhagen J.*** and M. Bott (2013). Metabolic engineering of microorganisms for the synthesis of plant natural products. *J. Biotechnol.* 163(2): 166-178. (<http://dx.doi.org/10.1016/j.jbiotec.2012.06.001>)

For three years in a row this review article was among Journal of Biotechnology's "Top 25 Hottest Articles" (2012: #16/25; 2013: #3/25; 2014: #16/25) [counted by article downloads on ScienceDirect]

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1. Shivange A., **Marienhagen J.**, Mundhada H., Schenk A., Schwaneberg U. (2009). Advances in generating functional diversity for directed protein evolution. *Curr. Opin. Chem. Biol.* 13(1): 1-7. (<http://dx.doi.org/10.1016/j.cbpa.2009.01.019>)

B. Book chapters

3. Kircher M. Bott M., **Marienhagen J.** (2020). The Importance of Biotechnology for the Bioeconomy. In: *Bioeconomy for Beginners*, J. Pietzsch (Hrsg.) Springer-Verlag GmbH Germany, Berlin Heidelberg. (ISBN 978-3-662-60389-5 (Hardcover) / ISBN 978-3-662-60390-1 (eBook))
2. Kircher M. Bott M., **Marienhagen J.** (2017). Die Bedeutung der Biotechnologie für die Bioökonomie. In: *Bioökonomie für Einsteiger*, J. Pietzsch (Hrsg.) Springer-Verlag GmbH Deutschland, Berlin Heidelberg. (ISBN 978-3-662-53762-6 (Hardcover) / ISBN 978-3-662-53763-3 (eBook))
1. Dennig A., **Marienhagen J.**, Ruff A. J., Schwaneberg U. (2014). OmniChange: Simultaneous Site-Saturation of up to Five Codons. In: *Directed Evolution Library Creation 2nd Edition*, Gillam E. M. J., Copp, J. N., Ackerley, D. F. *Series: Methods in Molecular Biology*, Vol. 1179: 139 – 149. Springer Science+Business Media, Luxemburg. Berlin. (ISBN 978-1-4939-1052-6 (Hardcover) / ISBN 978-1-4939-1053-3 (eBook))

C. Other publications

4. Kallscheuer N. und **Marienhagen J.** (2017). Produktion pflanzlicher Polyphenole mit *Corynebacterium glutamicum*. *BIOspektrum* 23 (3): 334-336. (<https://doi.org/10.1007/s12268-017-0804-6>)
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1. **Marienhagen J.**: Struktur und Funktion von Transaminasen aus *Corynebacterium glutamicum*. Schriften des Forschungszentrums Jülich, Reihe Gesundheit, Band 4, Jülich (2007) (ISBN 978-3-89336-512-8)

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D. Patents/Patent applications

8. Kallscheuer N., Milke L., Bott M., **Marienhagen J.** (2018). Bereitstellung von Malonyl-CoA in coryneformen Bakterien sowie Verfahren zur Herstellung von Polyphenolen und Polyketiden mit coryneformen Bakterien.
DE102018008670.5
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PT 1.2820
6. Radek A., Krumbach K., **Marienhagen J.**, Noack S. (2016). Producing D-xylonate from D-xylose using microorganisms comprises obtaining D-xylose from a coryneform bacterium, in which activity of lolR gene is reduced or completely eliminated with respect to wild form or a wild-type mutant.
DE102016007810-A1; WO 2017/220059-A1; PCT/DE2017/000138
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WO 2012/152691 A1; US20120295311 A1; EP11 165 367.1; PCT/EP2012/058250; US 13/466,656
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DE102008054918-A1; WO 2010/070086; PCT/EP2009/067493
2. **Marienhagen J.**, Eggeling L., Sahm H. (2006). Method for the fermentative production of L-valine using *Corynebacterium glutamicum* having increased Transaminase C activity. DE102004046933-A1; WO 2006/034667-A2; EP1812553-A2
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