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Orthogonal regulation of gene expression in yeast using plant-derived transcription factors

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Central goal for synthetic biology is the regulated expression of genes for establishing complex protein expression systems. Artificial transcription factors are one possibility for regulation of gene expression in an orthogonal control system. Presented data show the use of plant-derived artificial transcription factors to establish orthogonal regulators in yeast. The library consists of more than 100 members build from different DNA-binding sites, activation domains and corresponding synthetic promoters. Functionality of the library members is shown by GFP expression and its flow cytometric quantitation.

Biography

Gita Naseri completed her Master's degree in Plant Biotechnology from University of Guilan (Iran) followed by several years as Technical Manager in laboratories of the Rice Research Center (Rasht, Iran) and the laboratory of Plant Protection Clinic (Fouman, Iran). In 2013, she joined the group for synthetic biosystems at Potsdam University (Germany) as a PhD student. She has published first data of her thesis in *ACS Syn Biol* in 2017.

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