

## PUBLICATIONS

Total citations: ~10,250. Hirsch index, H=47 (Google Scholar).

<https://scholar.google.com/citations?user=EBV-dIEAAAAAJ&hl=en>

- 94 Lin L, Xu K, Shena D, Chou SH, **Gomelsky M**, Qian G. 2021. Antifungal weapons of *Lysobacter*, a mighty biocontrol agent. *Environ Microbiol* 23:5704-5715.
- 93 Xu K, Shen D, Yang N, Chou SH, **Gomelsky M**, Qian G. 2021. Coordinated control of the type IV pili and c-di-GMP-dependent antifungal antibiotic production in *Lysobacter* by the response regulator PilR. *Mol Plant Pathol* 22:602–617.
- 92 Qian G, Xu G, Chou SH, **Gomelsky M**, Liu F. 2020. Cyclic di-GMP-dependent regulation of antibiotic biosynthesis in *Lysobacter*. Microbial Cyclic Di-Nucleotide Signaling. Chou, Guiliani, Lee, Römling, eds. Springer, pp. 329-336.
- 91 Pallegar P, Pena-Castillo L, Langille E, **Gomelsky M**, Lang A. 2020. Cyclic-di-GMP-mediated regulation of gene transfer and motility in *Rhodobacter capsulatus*. *J Bacteriol* 202:e00554-19.
- 90 Han S, Shen D, Wang YC, Chou SH, **Gomelsky M**, Gao YG, Qian G. 2020. A YajQ-LysR-like, c-di-GMP-dependent system regulating biosynthesis of an antifungal antibiotic in a crop-protecting bacterium, *Lysobacter enzymogenes*. *Mol Plant Pathol* 21:218-229.
- 89 Mushnikov NV, Fomicheva A, **Gomelsky M**, Bowman G. 2019. Inducible asymmetric cell division and cell differentiation in a bacterium. *Nat Chem Biol* 15:925-931.
- 88 Fomicheva A, Zhou C, Sun QQ, **Gomelsky M**. 2019. Engineering adenylate cyclase activated by near-infrared window light for mammalian optogenetic applications. *ACS Synth Biol* 8:1314-1324.
- 87 Xu G, Han S, Huo, C, Chin KH, Chou SH, **Gomelsky M**, Qian G, Liu F. 2018. Signaling specificity in the c-di-GMP-dependent network regulating antibiotic synthesis in *Lysobacter*. *Nucl Acids Res* 46:9276-9288.
- 86 Zhang J, Chen T, Yang Y., Du J, Li H, Troxell B, He M, Carrasco S, **Gomelsky M**, Yang XF. 2018. Positive and negative regulation of glycerol utilization by the c-di-GMP binding protein PlzA in *Borrelia burgdorferi*. *J Bacteriol* 200:e00243-18.
- 85 Bjarnsholt T, Buhlin K, Dufrêne YF, **Gomelsky M**, Moroni A, Ramstedt M, Rumbaugh KP, Schulte T, Sun L, Åkerlund B, Römling U. 2018. Biofilm formation – What we can learn from recent developments. *J Intern Med* 284:332-345.
- 84 Latanova AA, Petkov S, Kilpelainen A, Jansons J, Latyshev O, Kuzmenko Y, Hinkula J, Abakumov M, Valuev-Elliston V, **Gomelsky M**, Karpov V, Chiodi F, Wahren B, Logunov D, Starodubova E, Isagulians M. 2018. Codon optimization and improved delivery/immunization regimen enhance the immune response against wild-type and drug-resistant HIV-1 reverse transcriptase, preserving its Th2-polarity. *Sci Rep* 8:8078.
- 83 Elbakush AM, Miller KW, **Gomelsky M**. 2018. CodY-mediated c-di-GMP-dependent inhibition of mammalian cell invasion in *Listeria monocytogenes*. *J Bacteriol* 200:e00457-17.
- 82 **Gomelsky M**. 2017. Photoactivated cells link diagnosis and therapy. *Sci Transl Med* 9:eaan3936.
- 81 Ryu MH, Fomicheva A, O'Neal L, Alexandre G, **Gomelsky M**. 2017. Using light-activated enzymes for modulating intracellular c-di-GMP levels in bacteria. *Methods Mol Biol* 1657:169-186.
- 80 O'Neal L, Ryu MH, **Gomelsky M**, Alexandre G. 2017. Optogenetic manipulation of c-di-GMP levels reveals the role of c-di-GMP in regulating aerotaxis receptor activity in *Azospirillum brasilense*. *J Bacteriol* 199:e00020-17.
- 79 Ryu MH, Fomicheva A, Moskvina OV, **Gomelsky M**. 2017. Optogenetic module for dichromatic control of c-di-GMP signaling. *J Bacteriol* 199:e00014-17.
- 78 Chen Y, Xia J, Su Z, Xu G, **Gomelsky M**, Qian G, Liu F. 2017. The regulator of type IV pili synthesis, PilR, from *Lysobacter* controls antifungal antibiotic production via a c-di-GMP pathway. *Appl Environ Microbiol* pii: AEM.03397-16.
- 77 Hengge R, Galperin MY, Ghigo JM, **Gomelsky M**, Green J, Hughes KT, Jenal U, Landini P. 2016. Systematic nomenclature for GGDEF and EAL domain-containing c-di-GMP turnover proteins of *Escherichia coli*. *J Bacteriol* 198:7-11.
- 76 Köseoğlu VK, Heiss C, Azadi P, Topchiy E, Güvener ZT, Lehmann TE, Miller KW, **Gomelsky M**. 2015. *Listeria monocytogenes* exopolysaccharide: origin, composition, biosynthetic machinery, and c-di-GMP-dependent regulation. *Mol Microbiol* 96:728-43.
- 75 Ryu MH, Youn H, Kang IH, **Gomelsky M**. 2015. Identification of bacterial guanylate cyclases. *Proteins* 83:799-804.
- 74 McCarter LL, **Gomelsky M**. 2015. Fifty ways to inhibit motility via c-di-GMP: the emerging *P. aeruginosa* swarming story. *J Bacteriol* 197:406-9.
- 73 Chen LH, Köseoğlu VK, Güvener ZT, Myers-Morales T, Reed JM, D'Orazio SEF, Miller KW, **Gomelsky M**. 2014. Cyclic di-GMP-dependent signaling pathways in the pathogenic firmicute *Listeria monocytogenes*. *PLoS Pathog* 10:e1004301.

- 72 Ryu MH, Kang IH, Nelson MD, Jensen TM, Lyuksyutova AI, Siltberg-Liberles J, Raizen DM, **Gomelsky M**. 2014. Engineering adenylate cyclases regulated by near-infrared window light. *Proc Natl Acad Sci USA* 111:10167-72.
- 71 Fang X, Ahmad I, Blanka A, Schottkowski M, Cimdins A, Galperin MY, Römling U, **Gomelsky M**. 2014. GIL, a new c-di-GMP binding protein domain involved in cellulose synthesis regulation in enterobacteria. *Mol Microbiol* 93:439–452.
- 70 Ye M, Zhang J, Fang X, Lawlis GB, Troxell B, Zhou Y, Lou Y, **Gomelsky M**, Lou Y, Yang XF. 2014. DhhP, a c-di-AMP phosphodiesterase of *Borrelia burgdorferi*, is essential for cell growth and virulence. *Infect Immun* 82:1840-9.
- 69 Ryu MH, Hull NC, **Gomelsky M**. 2014. Metabolic engineering of *Rhodobacter sphaeroides* for improved hydrogen production. *Intl J Hydrogen Energy* 39:6384-6390.
- 68 Ryu MH, **Gomelsky M**. 2014. Synthetic second messenger module controlled by near-infrared window light. *ACS Synth Biol* 3:802-810.
- 67 **Gomelsky M**. 2014. Special issue on synthetic photobiology. (Editorial) *ACS Synth Biol* 3:780-781.
- 66 Farmer RM, Laguna R, Panescu J, McCoy A, Logsdon B, Zianni M, Moskvina OV, **Gomelsky M**, Tabita FR. 2014. Altered residues in key proteins influence the expression and activity of the nitrogenase complex in an adaptive CO<sub>2</sub> fixation deficient mutant strain of *Rhodobacter sphaeroides*. *Microbiol* 160:198-208.
- 65 **Gomelsky M**, Galperin MY. 2013. Bacterial second messengers, cGMP and c-di-GMP, in a quest for regulatory dominance. *EMBO J* 32:2421-3.
- 64 **Gomelsky M**. 2013. A zinc lock on GGDEF domain dimerization inhibits *E. coli* biofilms. *Structure* 21:1067-8.
- 63 Hu J, Wang B, Fang X, Means WJ, McCormick RJ, Du M, **Gomelsky M**, Zhu MJ. 2013. c-di-GMP signaling regulates *E. coli* O157:H7 adhesion to colonic epithelium. *Vet Microbiol* 164:344-51.
- 62 Russell MH, Bible AN, Fang X, Gooding J, Campagna S, **Gomelsky M**, Alexandre G. 2013. Integration of the second messenger c-di-GMP into the chemotactic signaling pathway promotes sensory adaptation. *mBio* 4:e00001-13.
- 61 **Gomelsky M**, Zeilstra-Ryalls JH. 2013. The living genome of a purple nonsulfur photosynthetic bacterium: Overview of the *Rhodobacter sphaeroides* transcriptome landscapes. *Adv Botanical Res* 66:179-203.
- 60 Römling U, Galperin MY, **Gomelsky M**. 2013. Cyclic di-GMP: The first 25 years of a universal bacterial second messenger. *Microbiol Mol Biol Rev* 77:1-52.
- 59 Branchu P, Hindré T, Fang X, Thomas R, **Gomelsky M**, Claret L, Harel J, Gobert AP, Martin C. 2013. The c-di-GMP phosphodiesterase VmpA absent in *Escherichia coli* K12 strains affects motility and biofilm formation in the enterohemorrhagic O157:H7 serotype. *Vet Immunol Immunopathol* 152:132-140.
- 58 Hull TD, Ryu MH, Sullivan MJ, Klena NT, Johnson RC, Geiger RM, **Gomelsky M**, Bennett JA. 2012. C-di-GMP phosphodiesterases RmdA and RmdB are involved in regulating colony morphology and development in *Streptomyces coelicolor*. *J Bacteriol* 194:4642-4651.
- 57 **Gomelsky M**. 2012. C-di-GMP-mediated decisions in the surface-grown *Vibrio parahaemolyticus*: A different kind of motile-to-sessile transition. *J Bacteriol* 194:911-913.
- 56 Hopley L, Fung RK, Lambert C, Harris MA, Dabhi JM, King SS, Lambert C, Uchida K, Basford S, Ahmad R, Aizawa SI, **Gomelsky M**, Sockett RE. 2012. Discrete cyclic di-GMP-dependent control of bacterial predation versus axenic growth in *Bdellovibrio bacteriovorus*. *PLoS Pathog* 8:e1002493.
- 55 Monteiro C, Fang X, Ahmad I, **Gomelsky M**, Römling U. 2011. Regulation of biofilm components in *Salmonella enterica* serovar Typhimurium by lytic transglycosylases involved in cell wall turnover. *J Bacteriol* 193:6443-6451.
- 54 Tsuzuki M, Moskvina OV, Kuribayashi M, Sato K, Retamal S, Abo M, Zeilstra-Ryalls J, **Gomelsky M**. 2011. Salt-stress induced changes in the transcriptome, compatible solutes and membrane lipids in the facultatively phototrophic bacterium *Rhodobacter sphaeroides*. *Appl Environ Microbiol* 77:7551-7559.
- 53 **Gomelsky M**, Hoff WH. 2011. Light helps bacteria make important lifestyle decisions. *Trends Microbiol* 19:441-448.
- 52 He M, Ouyang Z, Troxell B, Xu H, Moh A, Piesman J, Norgard MV, **Gomelsky M**, Yang XF. 2011. Cyclic di-GMP is essential for the survival of the Lyme disease spirochete in ticks. *PLoS Pathog* 7:e1002133.
- 51 Smith A, Balazinska M, Baru C, **Gomelsky M**, McLennan M, Rose L, Smith B, Stewart, E, Kolker E. 2011. Biology and data-intensive science in the beginning of the 21st century. *OMICS* 15:209-212.
- 50 **Gomelsky M**. 2011. cAMP, c-di-GMP, c-di-AMP and now cGMP: Bacteria use them all! *Mol Microbiol* 79:562-565.
- 49 Bobrov AG, Kirillina O, Ryjenkov DA, Waters CM, Price PA, Fetherson JD, Mack D, Goldman WE, **Gomelsky M**, Perry RD. 2011. Systematic analysis of cyclic di-GMP signaling enzymes and their role in biofilm formation and virulence in *Yersinia pestis*. *Mol Microbiol* 79:533–551. (Faculty of 1000 Medicine: "Recommended")

- 48 Moskvin OV, Bolotin D, Wang A, Ivanov PS, **Gomelsky M**. 2011. Rhodobase, a meta-analytical tool for reconstructing gene regulatory networks in a model photosynthetic bacterium. *BioSystems* 103:125-131.
- 47 Ryu MH, Moskvin OV, Siltberg-Liberles J, **Gomelsky M**. 2010. Natural and engineered photoactivated nucleotidyl cyclases for optogenetic applications. *J Biol Chem* 285: 41501-41508. (Faculty of 1000 Biology: "Recommended")
- 46 Golomysova AN, **Gomelsky M**, Ivanov PS. 2010. Flux balance analysis of the photoheterotrophic growth of *Rhodobacter sphaeroides* relevant to biohydrogen production. *Intl J Hydrogen Energy* 35:12751-12760.
- 45 Moskvin OV, Gilles-Gonzalez MA, **Gomelsky M**. 2010. The PpaA/AerR regulators of photosynthesis gene expression from anoxygenic phototrophic proteobacteria contain heme-binding SCHIC domains. *J Bacteriol* 192:5253-5256.
- 44 Fang X, **Gomelsky M**. 2010. A post-translational, c-di-GMP-dependent mechanism regulating bacterial flagellar motility. *Mol Microbiol* 76:1295-1305. (Faculty of 1000 Biology: "Recommended")
- 43 Golomysova AN, **Gomelsky M**, Ivanov PS. 2010. Mathematical modeling of bacterial metabolism. *Moscow University Physics Bulletin* 65:230-233.
- 42 **Gomelsky M**. 2009. The core pathway: diguanylate cyclases, phosphodiesterases, and c-di-GMP-binding proteins. Chapter 4, pp. 37-56. In *The second messenger cyclic di-GMP*. (A. Wolfe and K. Visick, eds.) ASM Press, Washington, DC.
- 41 **Gomelsky M**. 2009. C-di-GMP-binding CRP-like protein: a spectacular new role for a veteran signal transduction actor. *J Bacteriol* 191:6785-6787.
- 40 Barends TRM, Hartmann E, Griese J, Beitlich T, Kirienko NV, Ryjenkov DA, Reinstein J, Shoeman RL, **Gomelsky M**<sup>#</sup>, Schlichting I<sup>#</sup>. 2009. Structure and mechanism of a bacterial light-regulated cyclic nucleotide phosphodiesterase. *Nature* 459:1015-1018 (#, *corresponding authors*). (Faculty of 1000 Biology: "Must read")
- 39 Tyagi A, Penzkofer A, Griese J, Schlichting I, Kirienko NV, **Gomelsky M**. 2008. Photodynamics of blue-light-regulated phosphodiesterase BlrP1 protein from *Klebsiella pneumoniae* and its photoreceptor BLUF domain. *Chem Physics* 354:130-141.
- 38 Gomelsky L, Moskvin OV, Stenzel R, Jones D, Donohue TJ, **Gomelsky M**. 2008. Hierarchical regulation of photosynthesis gene expression by oxygen-responsive PrrBA and AppA-PpsR systems of *Rhodobacter sphaeroides*. *J Bacteriol* 190:8106-8114.
- 37 Holland LM, O'Donnell ST, Ryjenkov DA, Gomelsky L, Slater SR, Fey PD, **Gomelsky M**, O'Gara JP. 2008. A staphylococcal GGDEF domain protein regulates biofilm formation independently of c-di-GMP. *J Bacteriol* 190:5178-5189.
- 36 Claret L, Miquel S, Vieille N, Ryjenkov DA, **Gomelsky M**, Darfeuille-Michaud A. 2007. The flagellar sigma factor FliA regulates adherence and invasion of Crohn disease-associated *Escherichia coli* via a c-di-GMP-dependent pathway. *J Biol Chem* 282:33275-33283. (Faculty of 1000 Biology: "Recommended")
- 35 Moskvin OV, Kaplan S, Gilles-Gonzalez MA, **Gomelsky M**. 2007. Novel heme-based oxygen sensor with a revealing evolutionary history. *J Biol Chem* 282:28740-28748. (Faculty of 1000 Biology: "Recommended")
- 34 Zeller T, Mraheil MA, Moskvin OV, Li K, **Gomelsky M**, Klug G. 2007. Regulation of hydrogen peroxide-dependent gene expression in *Rhodobacter sphaeroides*: Regulatory functions of OxyR. *J Bacteriol* 189:3784-3792.
- 33 Tarutina M, Ryjenkov DA, **Gomelsky M**. 2006. An unorthodox bacteriophytochrome from *Rhodobacter sphaeroides* involved in turnover of the second messenger c-di-GMP. *J Biol Chem* 281:34751-34758.
- 32 Ryjenkov DA, Simm R, Römling U, **Gomelsky M**. 2006. The PilZ domain is a receptor for the second messenger c-di-GMP. The PilZ domain protein YcgR controls motility in enterobacteria. *J Biol Chem* 281:30310-30314.
- 31 Harpster MH, Bandyopadhyay S, Thomas DP, Ivanov PS, Keele JA, Pinegina N, Gao B, Amarendran V, **Gomelsky M**, McCormick RJ, Stayton MM. 2006. Earliest changes in the left ventricular transcriptome postmyocardial infarction. *Mammal Genome* 17:701-715.
- 30 Zeller T, Moskvin OV, Li K, Klug G, **Gomelsky M**. 2005. Transcriptome and physiological responses to hydrogen peroxide in the facultatively phototrophic bacterium *Rhodobacter sphaeroides*. *J Bacteriol* 187:7232-7242.
- 29 Jung A, Domratcheva T, Tarutina M, Wu Q, Ko WH, Shoeman RL, **Gomelsky M**, Gardner KH, Schlichting I. 2005. Structure of a bacterial BLUF photoreceptor: Insights into blue light-mediated signal transduction. *Proc Natl Acad Sci USA* 102:12350-12355.
- 28 Galperin MY, **Gomelsky M**. 2005. Bacterial signal transduction modules: From genomics to biology. (Features) *ASM News* 71:326-333.
- 27 Schmidt AJ, Ryjenkov DA, **Gomelsky M**. 2005. The ubiquitous protein domain EAL is a c-di-GMP-specific phosphodiesterase: Enzymatically active and inactive EAL domains. *J Bacteriol* 187:4774-4781.
- 26 Römling U, **Gomelsky M**, Galperin MY. 2005. C-di-GMP: the dawning of a novel bacterial signalling system. MicroReview. *Mol Microbiol* 57:629-639.

- 25 Moskvin OV, Gomelsky L, **Gomelsky M**. 2005. Transcriptome analysis of the *Rhodobacter sphaeroides* PpsR regulon: PpsR as a master regulator of photosystem development. *J Bacteriol* 187:2148-2156.
- 24 Ryjenkov DA, Tarutina M, Moskvin OV, **Gomelsky M**. 2005. Cyclic diguanylate is a ubiquitous signaling molecule in bacteria: Insights into the biochemistry of the GGDEF protein domain. *J Bacteriol* 187:1792-1798.
- 23 Braatsch S, Moskvin OV, Klug G, **Gomelsky M**. 2004. Responses of the *Rhodobacter sphaeroides* transcriptome to blue light under semiaerobic conditions. *J Bacteriol* 186:7726-7735.
- 22 Pappas CT, Sram J, Moskvin OV, Ivanov PS, Mackenzie RC, Choudhary M, Land ML, Larimer FW, Kaplan S, **Gomelsky M**. 2004. Construction and validation of the genome-wide DNA microarray of *Rhodobacter sphaeroides* 2.4.1: Transcriptome flexibility at diverse growth modes. *J Bacteriol* 186:4748-4758.
- 21 Li SY, **Gomelsky M**, Duan J, Zhang Z, Gomelsky L, Zhang X, Epstein PN, Ren J. 2004. Overexpression of aldehyde dehydrogenase-2 (ALDH2) transgene prevents acetaldehyde-induced cell injury in human umbilical vein endothelial cells: Role of ERK and p38 MAP kinase. *J Biol Chem* 279:11244-11252.
- 20 Gomelsky L, Sram J, Moskvin OV, Horne IM, Dodd HN, Pemberton JM, McEwan AG, Kaplan S, **Gomelsky M**. 2003. Identification and in vivo characterization of PpaA, a regulator of photosystem formation in *Rhodobacter sphaeroides*. *Microbiol* 149:377-388.
- 19 **Gomelsky M**<sup>#</sup>, Klug G. 2002. BLUF: a novel FAD-binding domain involved in sensory transduction in microorganisms. *Trends Biochem Sci* 27:497-500. (#, corresponding author)
- 18 Braatsch S, **Gomelsky M**, Kuphal S, Klug G. 2002. A single flavoprotein, AppA, from *Rhodobacter sphaeroides* integrates both redox and light signals. *Mol Microbiol* 45:827-836.
- 17 **Gomelsky M**, Horne IM, Lee HJ, Pemberton JM, McEwan AG, Kaplan S. 2000. Domain structure, oligomeric state, and mutation analysis of PpsR, the *Rhodobacter sphaeroides* repressor of photosystem gene expression. *J Bacteriol* 182:2253-2261.
- 16 Chistoserdova L, Gomelsky L, Vorholt JA, **Gomelsky M**, Tsygankov YD, Lindstrom ME. 2000. Analysis of two formaldehyde oxidation pathways in *Methylobacillus flagellatum* KT, a ribulose monophosphate cycle methylotroph. *Microbiol* 146:233-238.
- 15 **Gomelsky M**, Lee HJ, Kaplan S. 1999. Regulation and mutation analysis of PpsR, the *Rhodobacter sphaeroides* repressor of photopigment and light harvesting complex II expression, p. 131-138. In *The Phototrophic Prokaryotes* (G. A. Peschek, W. Löffelhardt and G. Schmetterer, eds.). Kluwer Academic/Plenum Publishers. New York, Boston, Dordrecht, London, Moscow.
- 14 Zeilstra-Ryalls JH, **Gomelsky M**, Eraso JM, Yeliseev AA, O'Gara JP, Kaplan S. 1998. Control of photosystem formation in *Rhodobacter sphaeroides*. Minireview. *J Bacteriol* 180:2801-2809.
- 13 **Gomelsky M**, Kaplan S. 1998. AppA, a redox regulator of photosystem formation in *Rhodobacter sphaeroides* 2.4.1 is a flavoprotein. Identification of a novel FAD binding domain. *J Biol Chem* 273:35319-35325.
- 12 Zeilstra-Ryalls JH, **Gomelsky M**, Yeliseev AA, Eraso JM, Kaplan S. 1998. Transcriptional regulation of photosynthetic operons in *Rhodobacter sphaeroides*. *Methods Enzymol* 297:151-166.
- 11 Serebrijski I, **Gomelsky M**, Bashkirova E, Chistoserdov A and Tsygankov YD. 1998. Refined genetic map of the obligate methylotroph *Methylobacillus flagellatum*. *Mol Gen Genet* 258:133-138.
- 10 **Gomelsky M**, Kaplan S. 1997. Molecular genetic evidence suggesting interactions between AppA and PpsR in regulation of photosynthesis gene expression in *Rhodobacter sphaeroides* 2.4.1. *J Bacteriol* 179:128-134.
- 9 O'Gara JP, **Gomelsky M**, Kaplan S. 1997. Molecular genetic characterization of multiple loci involved in tellurite resistance in *Rhodobacter sphaeroides*. *Appl Environ Microbiol* 63:4713-4720.
- 8 **Gomelsky M**, Biville F, Gasser F, Tsygankov YD. 1996. Identification of the *pqqDGC* genes involved in pyrroloquinoline quinone production in an obligate methylotroph, *Methylobacillus flagellatum*. *FEMS Microbiol Lett* 141:169-176.
- 7 **Gomelsky M**, Kaplan S. 1996. The *Rhodobacter sphaeroides* 2.4.1 *rho* gene: expression and genetic analysis of structure and function. *J Bacteriol* 178:1946-1954.
- 6 **Gomelsky M**, Kaplan S. 1995. *appA*, a novel gene encoding a *trans*-acting factor involved in the regulation of photosynthesis gene expression in *Rhodobacter sphaeroides* 2.4.1. *J Bacteriol* 177:4609-4618.
- 5 **Gomelsky M**, Kaplan S. 1995. Isolation of regulatory mutants in photosynthesis gene expression in *Rhodobacter sphaeroides* 2.4.1 and partial complementation of a PrrB mutant by the HupT histidine-kinase. *Microbiol* 141:1805-1819.
- 4 **Gomelsky M**, Kaplan S. 1995. Genetic evidence that PpsR from *Rhodobacter sphaeroides* 2.4.1 functions as a repressor of *puc* and *bchF* expression. *J Bacteriol* 177:1634-1637.
- 3 **Gomelsky MV**, Gak ER, Chistoserdov AY, Bolotin AP, Tsygankov YD. 1991. *Methylobacillus flagellatum recA* gene: specificity of regulation, structure and functions, pp. 213-218. In *Molecular Basis of Genetic Processes*. Nauka. Moscow, USSR (in Russian).
- 2 **Gomelsky M**, Gak E, Chistoserdov A, Bolotin A, Tsygankov YD. 1990. Cloning, sequence and expression in *Escherichia coli* of the *Methylobacillus flagellatum recA* gene. *Gene* 94:69-75.

- 1 Tsygankov YD, **Gomelsky MV**, Marchenko GN, Serebrijski IG. 1990. Genetics of methylotrophic bacteria. *In* Proc 6th Intl Symp on Genetics of Industrial Microorganisms. 2:645-656. Societe Francaise de Microbiologie. Strasbourg, France.

## **PATENTS AND PATENT APPLICATIONS**

<https://patents.google.com/?inventor=gomelsky+mark&oq=gomelsky+mark>

- 4 **Gomelsky M**, Elbakush A. Materials and methods for preventing and dispersing exopolysaccharide-containing biofilms involving *Listeria monocytogenes*. (Priority date 2021-07-30).
- 3 Bowman G, Mushnikov N, **Gomelsky M**. Microbial stem cell technology. US Patent Application US20190322980A1 (Priority date 2018-04-05).
- 2 **Gomelsky M**, Miller KW, Köseoğlu VK. 2019. Compositions and methods for making and using hydrolytic enzymes for degrading polysaccharides made by foodborne pathogenic bacteria. US Patent 10,383,338. WO 2016/069888.
- 1 **Gomelsky M**, Ryu MH. 2014. Near-infrared light-activated proteins. US Patent 8,835,399 (2014), US Patent 10,041,057 (2018). European Patent EP 2,737,062.