

Резюме: Ямпольский Илья Викторович



Адрес

Федеральное государственное
бюджетное учреждение науки
Институт биоорганической химии им.
академиков М.М. Шемякина и Ю.А.
Овчинникова Российской академии
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Контакты

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Работа в ИБХ

2018–наст.вр.	Главный научный сотрудник
2021–наст.вр.	Заместитель директора по науке
2017–2025	Заведующий отделом

Членство в советах и комиссиях ИБХ

Методическая комиссия
Аттестационная комиссия
Диссертационный совет
Ученый совет

Научные интересы

Области научных интересов: Медицинская химия, полный синтез, биолюминесценция, люминесцентные и флуорогенные красители, установление механизмов биосинтеза.

Также И. В. Ямпольский посвящает много времени преподаванию химии для школьников и студентов, специализирующихся в области биологии, являясь автором около десятка оригинальных лекционных курсов.

Степени и звания

2016	Доктор наук (Химические науки, 02.00.10 — Биоорганическая химия)
2009	Кандидат наук (Химические науки, 03.00.04)

Ссылки и контакты

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Гранты и проекты

2022– 2024	Оптимизация биолюминесцентной системы грибов для прикладных биоаналитических и биоимиджинговых технологий
2020– 2022	Чех: Разработка панели люминесцентных репортеров для изучения растительных гормонов in vivo на основе генетически кодируемой люминесценции
2016–	Создание первой в мире генетически кодируемой системы автономной биолюминесценции

2021 [эукариот](#)

2018– [Поиск ферментов биосинтеза и инженерия метаболического пути гиспидина - биосинтетического предшественника люциферина грибов - в микроорганизмах](#)

2018– [Изучение структурно-функциональной организации гиспидин-3-гидроксилазы](#)
2020

Публикации

1. Morozov VV, Balakireva AV, Perfilov MM, Chepurnykh TV, **Yampolsky IV**, Sarkisyan KS, Mishin AS (2025). Constitutive Promoters Functional in Plant, Fungal, and Bacterial Hosts. *ACS Synth Biol* 14 (6), , [10.1021/acssynbio.4c00802](#)
2. Sorokin B, Filimonova A, Emelianova A, Kublitski V, Gvozd A, Shmygarev V, **Yampolsky I**, Guglya E, Gusev E, Kuzmin D (2025). Novel Triazeneindole Antibiotics: Synthesis and Hit-to-Lead Optimization. *Int J Mol Sci* 26 (5), 1870, [10.3390/ijms26051870](#)
3. Zakharchenko NS, Rukavtsova EB, **Yampolsky IV**, Balakirev DO, Dyadishchev IV, Ponomarenko SA, Luponosov YN, Filonov AE, Mikhailov PA, Zvonarev AN, Akhmetov LI, Terentyev VV, Khudyakova AY, Zalomova LV, Tarlachkov SV, Aripovsky AV, Puntus IF, Khramov RN (2024). Effect of Photoluminophore Light-Correcting Coatings and Bacterization by Associative Microorganisms on the Growth and Productivity of Brassica juncea L. Plants. *Microbiol Res (Pavia)* 15 (4), 1957–1972, [10.3390/microbiolres15040131](#)
4. Petushkov VN, Vavilov MV, Khokhlova AN, Zagitova RI, Belozero OA, Shcheglov AS, Kovalchuk SI, Tsarkova AS, Rodionova NS, **Yampolsky IV**, Dubinnyi MA (2024). Henlea earthworm bioluminescence comprises violet-blue BRET from tryptophan 2-carboxylate to deazaflavin cofactor. *Biochem Biophys Res Commun* 708, 149787, [10.1016/j.bbrc.2024.149787](#)
5. Palkina KA, Karataeva TA, Perfilov MM, Fakhranurova LI, Markina NM, Somermeyer LG, Garcia-Perez E, Vazquez-Vilar M, Rodriguez-Rodriguez M, Vazquez-Vilrales V, Shakhova ES, Mitouchkina T, Belozero OA, Kovalchuk SI, Alekberova A, Malyshevskaya AK, Bugaeva EN, Guglya EB, Balakireva A, Sytov N, Bezlikhotnova A, Boldyreva DI, Babenko VV, Kondrashov FA, Choob VV, Orzaez D, **Yampolsky IV**, Mishin AS, Sarkisyan KS (2024). A hybrid pathway for self-sustained luminescence. *Sci Adv* 10 (10), eadk1992, [10.1126/sciadv.adk1992](#)
6. Mujawar A, Dimri S, Palkina KA, Markina NM, Sarkisyan KS, Balakireva AV, **Yampolsky IV**, De A (2024). Novel BRET combination for detection of rapamycin-induced protein dimerization using luciferase from fungus Neonothopanus nambi. *Heliyon* 10 (4), e25553, [10.1016/j.heliyon.2024.e25553](#)
7. Stevani CV, Zamuner CK, Bastos EL, Nóbrega BB, Soares DM, Oliveira AG, Bechara EJ, Shakhova ES, Sarkisyan KS, **Yampolsky IV**, Kaskova ZM (2024). The living light from fungi. *Journal of Photochemistry and Photobiology C: Photochemistry Reviews* 58, , [10.1016/j.jphotochemrev.2024.100654](#)
8. Shakhova ES, Karataeva TA, Markina NM, Mitouchkina T, Palkina KA, Perfilov MM, Wood MG, Hoang TT, Hall MP, Fakhranurova LI, Alekberova AE, Malyshevskaya AK, Gorbachev DA, Bugaeva EN, Pletneva LK, Babenko VV, Boldyreva DI, Gorokhovatsky AY, Balakireva AV, Gao F, Choob VV, Encell LP, Wood KV, **Yampolsky IV**, Sarkisyan KS, Mishin AS (2024). An improved pathway for autonomous bioluminescence imaging in eukaryotes. *Nat Methods* 21 (3), 406–410, [10.1038/s41592-023-02152-y](#)
9. Makhin AP, Miturich VS, Vavilov MV, Lyakhovich MS, Andrianova AA, Zagitova RI, Shmygarev VI, Fadeeva AA, Yatskin ON, Belozero OA, Tsatsakis A, **Yampolsky IV**, Kaskova ZM (2024). Improved synthesis of two quisqualic acid analogs containing hydantoin and imidazolidinone moieties. *Chem Heterocycl Compd (N Y)* , , [10.1007/s10593-024-03331-1](#)
10. Dmitrieva DA, Belozero OA, Mishin AV, **Yampolsky IV**, Kotlobay AA (2024). New transaminase from *Odontosyllis undecimdonata* the first potential enzyme of the luciferin biosynthesis pathway. *Biochimie* 228, 82–88, [10.1016/j.biochi.2024.08.012](#)
11. Mujawar A, Phadte P, Palkina KA, Markina NM, Mohammad A, Thakur BL, Sarkisyan KS, Balakireva AV, Ray P, **Yampolsky I**, De A (2023). Triple Reporter Assay: A Non-Overlapping Luciferase Assay for the Measurement of Complex Macromolecular Regulation in Cancer Cells Using a New Mushroom Luciferase–Luciferin Pair. *Sensors (Basel)* 23 (17), , [10.3390/s23177313](#)

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15. Palkina KA, Balakireva AV, Belozero OA, Chepurnykh TV, Markina NM, Kovalchuk SI, Tsarkova AS, Mishin AS, **Yampolsky IV**, Sarkisyan KS (2023). Domain Truncation in Hispidin Synthase Orthologs from Non-Bioluminescent Fungi Does Not Lead to Hispidin Biosynthesis. *Int J Mol Sci* 24 (2), 1317, [10.3390/ijms24021317](https://doi.org/10.3390/ijms24021317)
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 31. Kotlobay AA, Dubinnyi MA, Purtov KV, Guglya EB, Rodionova NS, Petushkov VN, Bolt YV, Kublitski VS, Kaskova ZM, Ziganshin RH, Nelyubina YV, Dorovatovskii PV, Eliseev IE, Branchini BR, Bourenkov G, Ivanov IA, Oba Y, **Yampolsky IV**, Tsarkova AS (2019). Bioluminescence chemistry of fireworm Odontosyllis. *Proc Natl Acad Sci U S A* 116 (38), 18911–18916, [10.1073/pnas.1902095116](https://doi.org/10.1073/pnas.1902095116)
 32. (книга) Shimomura O, Stevani CV, Kaskova ZM, Tsarkova AS, **Yampolsky IV** (2019). Luminous fungi. , 301–348.
 33. (книга) Shimomura O, **Yampolsky IV** (2019). Bioluminescence: Chemical principles and methods (3rd Edition). , 1–496, [10.1142/8239](https://doi.org/10.1142/8239)
 34. Osipova ZM, Shcheglov AS, **Yampolsky IV** (2019). Autonomous bioluminescent systems: Prospects for use in the imaging of living organisms. *Bulletin of Russian State Medical University* 9 (6), 62–65, [10.24075/brsmu.2019.083](https://doi.org/10.24075/brsmu.2019.083)
 35. Chen C, Zhu L, Baranov MS, Tang L, Baleeva NS, Smirnov AY, **Yampolsky IV**, Solntsev KM, Fang C (2019). Photoinduced Proton Transfer of GFP-Inspired Fluorescent Superphotoacids: Principles and Design. *J Phys Chem B* 123 (17), 3804–3821, [10.1021/acs.jpcc.9b03201](https://doi.org/10.1021/acs.jpcc.9b03201)
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 42. (конференция) Palkina K, Markina N, Mokrushina Y, Chepurnykh T, Sarkisyan K, **Yampolsky I** (2018). Biosynthesis of hispidin by plant type III polyketide synthases in yeast and mammalian cell cultures. *FEBS Open Bio* 8 (1), 172–173.
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44. Ermakova YG, Pak VV, Bogdanova YA, Kotlobay AA, **Yampolsky IV**, Shokhina AG, Panova AS, Marygin RA, Staroverov DB, Bilan DS, Sies H, Belousov VV (2018). SypHer3s: A genetically encoded fluorescent ratiometric probe with enhanced brightness and an improved dynamic range. *Chem Commun (Camb)* 54 (23), 2898–2901, [10.1039/c7cc08740c](https://doi.org/10.1039/c7cc08740c)
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