

Резюме: Ямпольский Илья Викторович



Адрес

Федеральное государственное
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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. 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](#)
2. 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](#)
3. 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](#)
4. Palkina KA, Karataeva TA, Perfilov MM, Fakhranurova LI, Markina NM, Somermeyer LG, Garcia-Perez E, Vazquez-Vilar M, Rodriguez-Rodriguez M, Vazquez-Vilriales 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](#)
5. 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](#)
6. 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](#)
7. 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](#)
8. 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](#)
9. 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* , , [10.1016/j.biochi.2024.08.012](#)
10. 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](#)
11. Kotlobay AA, Dubinnyi MA, Kovalchuk SI, Makhin AP, Miturich VS, Lyakhovich MS, Fontaine DM, Southworth TL, Shmygarev VI, Yatskin ON, Branchini BR, **Yampolsky IV**, Kaskova ZM (2023). Structure elucidation of *Keroplatus* (Diptera:Keroplastidae) fungus gnat oxyluciferin. *Biochem Biophys Res Commun* 676, 1–5,

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31. (книга) Shimomura O, Stevani CV, Kaskova ZM, Tsarkova AS, **Yampolsky IV** (2019). Luminous fungi. , 301–348.
32. (книга) Shimomura O, **Yampolsky IV** (2019). Bioluminescence: Chemical principles and methods (3rd Edition). , 1–496, [10.1142/8239](https://doi.org/10.1142/8239)
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35. Chen C, Baranov MS, Zhu L, Baleeva NS, Smirnov AY, Zaitseva SO, **Yampolsky IV**, Solntsev KM, Fang C (2019). Designing redder and brighter fluorophores by synergistic tuning of ground and excited states. *Chem Commun (Camb)* 55 (17), 2537–2540, [10.1039/c8cc10007a](https://doi.org/10.1039/c8cc10007a)
36. Kotlobay AA, Sarkisyan KS, Mokrushina YA, Marcet-Houben M, Serebrovskaya EO, Markina NM, Gonzalez Somermeyer L, Gorokhovatsky AY, Vvedensky A, Purtov KV, Petushkov VN, Rodionova NS, Chepurnyh TV, Fakhranurova LI, Guglya EB, Ziganshin R, Tsarkova AS, Kaskova ZM, Shender V, Abakumov M, Abakumova TO, Povolotskaya IS, Eroshkin FM, Zaraisky AG, Mishin AS, Dolgov SV, Mitouchkina TY, Kopantzev EP, Waldenmaier HE, Oliveira AG, Oba Y, Barsova E, Bogdanova EA, Gabaldón T, Stevani CV, Lukyanov S, Smirnov IV, Gitelson JI, Kondrashov FA, **Yampolsky IV** (2018). Genetically encodable bioluminescent system from fungi. *Proc Natl Acad Sci U S A* 115 (50), 12728–12732, [10.1073/pnas.1803615115](https://doi.org/10.1073/pnas.1803615115)
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43. Ermakova YG, Pak VV, Bogdanova YA, Kotlobay AA, **Yampolsky IV**, Shokhina AG, Panova AS, Marygin RA,

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