

Резюме: Ямпольский Илья Викторович



Адрес

Федеральное государственное
бюджетное учреждение науки
Институт биоорганической химии им.
академиков М.М. Шемякина и Ю.А.
Овчинникова Российской академии
наук, Москва, Россия

Контакты

<https://www.ibch.ru/users/276>

Работа в ИБХ

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

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)

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– 2021	Создание первой в мире генетически кодируемой системы автономной биолюминесценции эукариот
2018–	Поиск ферментов биосинтеза и инженерия метаболического пути гиспидина - биосинтетического

Публикации

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2. 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](#)
3. 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](#)
4. 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](#)
5. 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](#)
6. 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](#)
7. 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](#)
8. 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](#)
9. 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](#)
10. 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:Keroplataidae) fungus gnat oxyluciferin. *Biochem Biophys Res Commun* 676, 1–5, [10.1016/j.bbrc.2023.07.035](#)
11. Bolt YV, Dubinnyi MA, Litvinenko VV, Kotlobay AA, Belozero OA, Zagitova RI, Shmygarev VI, Yatskin ON, Guglya EB, Kublitski VS, Baranov MS, **Yampolsky IV**, Kaskova ZM, Tsarkova AS (2023). Total Synthesis of Racemic Thieno[3,2-f]thiochromene Tricarboxylate, a Luciferin from Marine Polychaeta *Odontosyllis undecimdonata*. *Org Lett* 25 (26), 4892–4897, [10.1021/acs.orglett.3c01696](#)
12. Zagitova RI, Purtov KV, Shcheglov AS, Mineev KS, Dubinnyi MA, Myasnyanko IN, Belozero OA,

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13. 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)
 14. Terekhov SS, Shmygarev VI, Purtov KV, Smirnov IV, **Yampolsky IV**, Tsarkova AS (2022). Drug design strategies for the treatment of coronavirus infection. *Bulletin of Russian State Medical University* 6 (6), 126–128, [10.24075/brsmu.2022.067](https://doi.org/10.24075/brsmu.2022.067)
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 35. 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, Zarskiy 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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 39. (конференция) **Yampolsky IV**, Purtov KV (2018). New bioluminescence systems: luciferins, luciferases and luciferin biosynthesis pathways. *FEBS Open Bio* 8 (1), 26: S.05–1.
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45. Osipova ZM, Shcheglov AS, **Yampolsky IV** (2018). A bioluminescent system of Fungi: Prospects for application in medical research. *Bulletin of Russian State Medical University* 7 (1), 80–83, [10.24075/brsmu.2018.004](https://doi.org/10.24075/brsmu.2018.004)
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