

## Ilia V. Yampolsky, PhD, Dr.Sc.

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### Curriculum Vitae

Ilia V. Yampolsky was born in 1979 in Moscow (Russia). He received his MS in chemistry from the Higher Chemical College RAS (Moscow). Since 2002 he has worked at the Institute of Bioorganic Chemistry of the Russian Academy of Sciences (IBCh RAS) with Sergey Lukyanov, where he received his PhD in biochemistry in 2009 for structure elucidation of the chromophores of GFP-like red fluorescent proteins and Dr.Sc. degree in 2016 for studying new bioluminescent systems. Since 2017 he heads the Biomolecular Chemistry Department and the Chemistry of Metabolic Pathways Lab at the same Institute, and occupies the position of deputy director of the Institute. His research interests include new bioluminescent systems, fluorescent and fluorogenic dyes, evaluation of biosynthetic mechanisms, medicinal chemistry, and total synthesis of natural products. He co-authored ~70 papers in peer-reviewed journals including Nature Biotechnology, Nature Chemical Biology, Journal of the American Chemical Society, Science Advances, Angewandte Chemie, Chemical Society Reviews, the Journal of Organic Chemistry, Biochemistry, Chemical Communications, PNAS and others.

### Employment History

<i>March 2017 – Present</i>	Lab Head, Head of Department, Deputy Director (IBCh RAS)
<i>June 2012 – April 2017</i>	Head of the Research Group (IBCh RAS)
<i>April 2009 – April 2012</i>	Senior Research Fellow (IBCh RAS)
<i>March 2002 – April 2009</i>	Research Fellow (IBCh RAS)

### Education

<i>September 2016</i>	Dr.Sc. in Bioorganic Chemistry, Institute of Bioorganic Chemistry of the Russian Academy of Sciences
<i>June 2009</i>	PhD in Biochemistry, Institute of Bioorganic Chemistry of the Russian Academy of Sciences
<i>June 2001</i>	MS in Chemistry, Higher Chemical College of the Russian Academy of Sciences

## Main Papers

### **62. Domain Truncation in Hispidin Synthase Orthologs from Non-Bioluminescent Fungi Does Not Lead to Hispidin Biosynthesis**

Palkina, K.A.; Balakireva, A.V.; Belozerovala, O.A.; Chepurnykh, T.V.; Markina, N.M.; Kovalchuk, S.I.; Tsarkova, A.S.; Mishin, A.S.; Yampolsky, I.V.; Sarkisyan, K.S. *International Journal of Molecular Sciences*, 2023, 24, 1317. DOI: 10.3390/ijms24021317

### **61. Deazaflavin cofactor boosts earthworms *Henlea* bioluminescence**

Petushkov V.N., Vavilov M.V., Ivanov I.A., Ziganshin R.H., Rodionova N.S., Yampolsky I.V., Tsarkova A.S., Dubinnyi M.A. *Organic & Biomolecular Chemistry*, 2023, 21, 415-427. DOI: 10.1039/D2OB01946A

### **54. Plants with genetically encoded autoluminescence**

Mitiouchkina T., Mishin A.S., Somermeyer L.G., Markina N.M., Chepurnykh T.V., Guglya E.V., Karataeva T.A., Palkina K.A., Shakhova E.S., Fakhranurova L.I., Chekova S.V., Tsarkova A.S., Golubev Y.V., Negrebetsky V.V., Dolgushin S.A., Shalaev P.V., Melnik O.A., Shipunova V.O., Deyev S.M., Bubyrev A.I., Pushin A.S., Choob V.V., Dolgov S.V., Kondrashov F.A., Yampolsky I.V., Sarkisyan K.S.

*Nature Biotechnology*, 2020, 38, 944-946. doi 10.1038/s41587-020-0500-9

### **53. Bioluminescence chemistry of fireworm *Odontosyllis***

A.A. Kotlobay, M.A. Dubinnyi, K.V. Purtov, E.B. Guglya, N.S. Rodionova, V.N. Petushkov, Y.V. Bolt, V.S. Kublitski, Z.M. Kaskova, R.H. Ziganshin, Y.V. Nelyubina, P.V. Dorovatovskii, I.E. Eliseev, B.R. Branchini, G. Bourenkov, I.A. Ivanov, Y. Oba, I.V. Yampolsky, A.S. Tsarkova  
*Proceedings of the National Academy of Sciences of the U.S.A.*, 2019, 116, 38, 18911-18916.

### **52. Photoinduced Proton Transfer of GFP-Inspired Fluorescent Superphotoacids: Principles and Design**

C. Chen, L. Zhu, M.S. Baranov, L.T. Tang, N.S. Baleeva, A.Y. Smirnov, I.V. Yampolsky, K.M. Solntsev, C. Fang.

*Journal of Physical Chemistry B*, 2019, 123, 17, 3804-3821.

### **51. Designing redder and brighter fluorophores by synergistic tuning of ground and excited states**

C. Chen, M.S. Baranov, L. Zhu, N.S. Baleeva, A.Yu. Smirnov, S.O. Zaitseva, I.V. Yampolsky, K.M. Solntsev and C. Fang.

*Chemical Communications*, 2019, 55, 2537-2540.

### **50. Genetically encodable bioluminescent system from fungi**

A.A. Kotlobay, K.S. Sarkisyan, Y.A. Mokrushina, M. Marcet-Houben, E.O. Serebrovskaya, N.M. Markina, L.G. Somermeyer, A.Y. Gorokhovatsky, A. Vvedensky, K.V. Purtov, V.N. Petushkov, N.S. Rodionova, T.V. Chepurnykh, L.I. Fakhranurova, E.B. Guglya, R. Ziganshin, A.S. Tsarkova, Z.M. Kaskova, V. Shender, M. Abakumov, T.O. Abakumova, I.S. Povolotskaya, F.M. Eroshkin, A.G. Zarausky, A.S. Mishin, S. V. Dolgov, T.Y. Mitiouchkina, E.P. Kopantzev, H.E. Waldenmaier, A.G. Oliveira, Y. Oba, E. Barsova, E.A. Bogdanova, T. Gabaldón, C.V. Stevani, S. Lukyanov, I.V. Smirnov, J.I. Gitelson, F.A. Kondrashov, I.V. Yampolsky.

*Proceedings of the National Academy of Sciences of the U.S.A.*, 2018, 115, 50, 12728-12732.

### **49. Luciferase of the Japanese syllid polychaete *Odontosyllis umdecimdonta***

D.T. Schultz, A.A. Kotlobay, R. Ziganshin, A. Bannikov, N.M. Markina, T.V. Chepurnykh, E.S. Shakhova, K. Palkina, S.H.D. Haddock, I.V. Yampolsky, Y. Oba.

*Biochemical and Biophysical Research Communications*, 2018, 502, 3, 318-323.

### **48. SypHer3s: genetically encoded fluorescent ratiometric probe with enhanced brightness and improved dynamic range**

Y.G. Ermakova, V.V. Pak, Y.A. Bogdanova, A.A. Kotlobay, I.V. Yampolsky, A.G. Shokhina, A.S. Panova, R. Marygin, D.B. Staroverov, D.S. Bilan, H. Sies and V.V. Belousov.  
*Chemical Communications*, 2018, 54, 2898-2901.

**47. [Unveiling Structural Motions of a Highly Fluorescent Superphotoacid by Locking and Fluorinating the GFP Chromophore in Solution](#)**

Ch. Chen, W. Liu, M.S. Baranov, N.S. Baleeva, I.V. Yampolsky, L. Zhu, Y. Wang, A. Shamir, K.M. Solntsev, Ch. Fang.  
*Journal of Physical Chemistry Letters*, 2017, 8, 5921–5928.

**46. [Prolonged bioluminescence imaging in living cells and mice using novel pro-substrates for \*Renilla luciferase\*](#)**

M. Yuan, X. Ma, T. Jiang, Y. Gao, Y. Cui, Ch. Zhang, X. Yang, Y. Huang, L. Du, I. Yampolsky, M. Li.  
*Organic and Biomolecular Chemistry*, 2017, 15, 10238-10244.

**45. [New bioluminescent coelenterazine derivatives with various C-6 substitutions](#)**

T. Jiang, X. Yang, Y. Zhou, I. Yampolsky, L. Dua, M. Li.  
*Organic and Biomolecular Chemistry*, 2017, 15, 7008-7018.

**44. [Fucoxanthin production by heterokont microalgae](#)**

M. Petrushkina, E. Gusev, B. Sorokin, N. Zotko, A. Mamaeva, A. Filimonova, M. Kulikovskiy, Y. Maltsev, I. Yampolsky, E. Guglya, V. Vinokurov, Z. Namsaraev, D. Kuzmin.  
*Algal Research*, 2017, 24A, 387–393.

**43. [Protein labeling for live cell fluorescence microscopy with a highly photostable renewable signal](#)**

N.G. Bozhanova, M.S. Baranov, N.V. Klementieva, K.S. Sarkisyan, A.S. Gavrikov, I.V. Yampolsky, E.V. Zagaynova, S. Lukyanov, K. Lukyanov, A.S. Mishin.  
*Chemical Science*, 2017, 8, 7138–7142.

**42. [Identification of hispidin as a bioluminescent active compound and its recycling biosynthesis in the luminous fungal fruiting body](#)**

Y. Oba, Y. Suzuki, G.N.R. Martins, R.P. Carvalho, T.A. Pereira, H.E. Waldenmaier, Sh. Kanie, M. Naito, A.G. Oliveira, F.A. Dörr, E. Pinto, I.V. Yampolsky, C.V. Stevani.  
*Photochemical and Photobiological Science*, 2017, 16, 1435-1440.

**41. [Synthesis of Panal Terpenoid Core](#)**

Baranov, M.S.; Kaskova, Z.M.; Gritcenko, R.; Postikova, S.G.; Ivashkin, P.E.; Kislukhin, A.A.; Moskvin, D.I.; Mineev, K.S.; Arseniev, A.S.; Labas, Y.A.; Yampolsky, I.V.  
*Synlett*, 2017, 28, 583–588.

**40. [Mechanism and color modulation of fungal bioluminescence](#)**

Z. M. Kaskova, F. A. Dörr, V. N. Petushkov, K. V. Purtov, A. S. Tsarkova, N. S. Rodionova, K. S. Mineev, E. B. Guglya, A. Kotlobay, N. S. Baleeva, M. S. Baranov, A. S. Arseniev, J. I. Gitelson, S. Lukyanov, Y. Suzuki, S. Kanie, E. Pinto, P. Di Mascio, H. E. Waldenmaier, T. A. Pereira, R. P. Carvalho, A. G. Oliveira, Y. Oba, E. L. Bastos, C. V. Stevani, I. V. Yampolsky.  
*Science Advances*, 2017, 3, e1602847.

**39. [Selected Least Studied but not Forgotten Bioluminescent Systems](#)**

Y. Oba, C.V. Stevani, A.G. Oliveira, A.S. Tsarkova, T.V. Chepurnykh, I.V. Yampolsky.  
*Photochemistry and Photobiology*, 2017, 93, 405–415.

**38. [A Tale Of Two Luciferins: Fungal and Earthworm New 2 Bioluminescent Systems](#)**

A.S. Tsarkova, Z.M. Kaskova, I.V. Yampolsky.  
*Accounts of Chemical Research*, 2016, 49,11, 2372–2380.

**37. [1001 Lights: Luciferins, Luciferases, Their Mechanisms of Action and Applications in Chemical Analysis, Biology and Medicine](#)**

Z.M. Kaskova, A.S. Tsarkova, I.V. Yampolsky.  
*Chemical Society Reviews*, 2016, 45, 6048–6077.

**36. [Conformationally Locked GFP Chromophore Derivatives as Potential Fluorescent Sensors](#)**

N.S. Baleeva, I.V. Yampolsky, M.S. Baranov.  
*Russian Journal of Bioorganic Chemistry*, 2016, 42 (4), 453–456.

**35. [Nambiscalarane, a novel sesterterpenoid comprising a furan ring, and other secondary metabolites from bioluminescent fungus \*Neonothopanus nambi\*](#)**

A.S. Tsarkova, M.A. Dubinnyi, M.S. Baranov, A.D. Oguienko, I.V. Yampolsky.  
*Mendeleev Communications*, 2016, 26, 191–192.

**34. [Docking-guided identification of protein hosts for GFP chromophore-like ligands](#)**

N.V. Povarova, N.G. Bozhanova, K.S. Sarkisyan, R. Gritcenko, M.S. Baranov, I.V. Yampolsky, K. Lukyanov, A.S. Mishin.  
*Journal of Material Chemistry C*, 2016, 4, 3036–3040.

**33. [Bioinspired fluorescent dyes based on conformationally locked chromophore of fluorescent protein Kaede](#)**

N.S. Baleeva, K.A. Myannik, I.V. Yampolsky, M.S. Baranov.  
*European Journal of Organic Chemistry*, 2015, 26, 5716–5721.

**32. [Fluorescence imaging using synthetic GFP chromophores](#)**

Ch.L. Walker, K.A. Lukyanov, I.V. Yampolsky, A.S. Mishin, A.S. Bommarius, A.M. Duraj-Thatte, B. Azizi, L.M. Tolbert, K.M. Solntsev.  
*Current Opinions in Chemical Biology*, 2015, 27, 64–74.

**31. [The chemical basis of fungal bioluminescence](#)**

Purtov K.V., Petushkov V.N., Baranov M.S., Mineev K.S., Rodionova N.S., Kaskova Z.M., Tsarkova A.S., Petunin A.I., Bondar V.S., Rodicheva E.K., Medvedeva S.E., Oba Yuichi, Oba Yomiko, Arseniev A.S., Lukyanov S., Gitelson J.I., Yampolsky I.V.  
*Angewandte Chemie International Edition*, 2015, 54, 8124–8128.

**30. [Novel mechanism of bioluminescence: oxidative decarboxylation of \*Fridericia luciferin\*](#)**

M.A. Dubinnyi, Z.M. Kaskova, N.S. Rodionova, M.S. Baranov, A.Y. Gorokhovatsky, A. Kotlobay, K.M. Solntsev, A.S. Tsarkova, V.N. Petushkov, I.V. Yampolsky.  
*Angewandte Chemie International Edition*, 2015, 54, 7065–7067.

**29. [Total synthesis of AsLn2 – a luciferin analogue from the Siberian bioluminescent earthworm \*Fridericia heliota\*](#)**

A.S. Tsarkova, M.A. Dubinnyi, M.S. Baranov, V.N. Petushkov, N.S. Rodionova, M.B. Zagudaylova, I.V. Yampolsky.  
*Mendeleev Communications*, 2015, 25, 99–100.

**28. [Novel Peptide Chemistry in Terrestrial Animals: Natural Luciferin Analogues from the Bioluminescent Earthworm \*Fridericia heliota\*](#)**

M. A. Dubinnyi, A. S. Tsarkova, V. N. Petushkov, Z. M. Kaskova, N. S. Rodionova, S. I. Kovalchuk, R. H. Ziganshin, M. S. Baranov, K. S. Mineev, I. V. Yampolsky.  
*Chemistry - A European Journal*, 2015, 21, 3942 – 3947.

**27. [Red-shifted fluorescent aminated derivatives of conformationally locked GFP chromophore](#)**

Baranov M.S., Solntsev K.M., Baleeva N.S., Mishin A.S., Lukyanov K.A., Yampolsky I.V.  
*Chemistry - A European Journal*, 2014, 20, 41, 13234–13241.

**26. [A novel type of luciferin from Siberian luminous earthworm \*Fridericia heliota\*: structure elucidation by spectral studies and total synthesis](#)**

Petushkov V.N., Dubinnyi M.A., Tsarkova A.S., Rodionova N.S., Baranov M.S., Kublitski V.S., Shimomura O., Yampolsky I.V.  
*Angewandte Chemie International Edition*, 2014, 53, 22, 5566–5568.

**25. [Ring-expanding rearrangement of 2-acyl-5-arylidene-3,5-dihydro-4H-imidazol-4-ones in synthesis of flutimide analogs](#)**

Baranov M.S., Fedyakina I.T., Shchelkanov M.Y., Yampolsky I.V.  
*Tetrahedron*, 2014, 70, 3714-3719.

**24. [AsLn2, a luciferin-related modified tripeptide from the bioluminescent earthworm \*Fridericia heliota\*](#)**

V.N. Petushkov, M.A. Dubinnyi, N.S. Rodionova, K.D. Nadezhdin, S.M. Marques, J.C.G. Esteves da Silva, O. Shimomura, I.V. Yampolsky.  
*Tetrahedron Letters*, 2014, 55, 463-465.

**23. [CompX, a luciferin-related tyrosine derivative from the bioluminescent earthworm \*Fridericia heliota\*. Structure elucidation and total synthesis](#)**

V.N. Petushkov, A.S. Tsarkova, M.A. Dubinnyi, N.S. Rodionova, S.M. Marques, J.C.G. Esteves da Silva, O. Shimomura, I. V. Yampolsky.  
*Tetrahedron Letters*, 2014, 55, 460-462.

**22. [Structure of the red fluorescent protein from a lancelet \(\*Branchiostoma lanceolatum\*\): a novel GYG chromophore covalently bound to a nearby tyrosine](#)**

V.Z. Pletnev, N.V. Pletneva, K.A. Lukyanov, E.A. Souslova, A.F. Fradkov, D.M. Chudakov, T. Chepurnykh, I.V. Yampolsky, A. Wlodawer, Z. Dauter, S. Pletnev.  
*Acta Crystallographica Section D*, 2013, D69, 1850-1860.

**21. [Chemical introduction of the green fluorescence: imaging of cysteine cathepsins by an irreversibly locked GFP fluorophore](#)**

M. Frizler, I.V. Yampolsky, M.S. Baranov, M. Stirnberga, M. Gütschow.  
*Organic and Biomolecular Chemistry*, 2013, 11, 5913.

**20. [Synthetic approach to GFP chromophore analogs from 3-azidocinnamates. Role of methyl rotors on the chromophore photophysics](#)**

M.S. Baranov, K.M. Solntsev, K.A. Lukyanov, I.V. Yampolsky.  
*Chemical Communications*, 2013, 49, (51), 5778-5780.

**19. [Synthesis of the chromophores of fluorescent proteins and their analogs](#)**

Baranov M.S., Lukyanov K.A., Yampolsky I.V.  
*Russian Journal of Bioorganic Chemistry*, 2013, 3, 223-244.

**18. [An efficient synthetic approach to fluorescent oxazole-4-carboxylate derivatives](#)**

Baranov M.S., Lukyanov K.A., Ivashkin P.E., Yampolsky I.V.  
*Synthetic Communications*, 2013, 43, 17, 2337-2342.

**17. [Novel condensations of nitroacetic esters with aromatic aldehydes leading to 5-hydroxy-1,2-oxazin-6-ones](#)**

Baranov M.S., Yampolsky I.V.  
*Tetrahedron Letters*, 2013, 54, 7, 628-629.

**16. [Unusual transformations of anthranilic acid imidazolides](#)**

Baranov M.S., Yampolsky I.V.  
*Chemistry of Heterocyclic Compounds*, 2012, 1108-1110.

**15. [Tryptophan-based chromophore in fluorescent proteins can be anionic](#)**

Sarkisyan, K.S.; Yampolsky, I.V.; Solntsev, K.M.; et al.  
*Scientific reports*, 2012, 2, 608.

**14. [Conformationally locked chromophores as a model of excited state proton transfer in fluorescent proteins](#)**

Baranov M.S., Lukyanov K.A., Borissova A.O., Shamir J., Kosenkov D., Slipchenko L.V., Tolbert L.M., Yampolsky I.V., Solntsev K.M.

*Journal of the American Chemical Society*, 2012, 134, 6025-6032.

**13. [Synthesis of Biosynthetic Precursors of Chromophores of Red Fluorescent Proteins](#)**

P.E. Ivashkin, K.A. Lukyanov, I.V. Yampolsky.

*Russian Journal of Bioorganic Chemistry*, 2011, 37, 411–420.

**12. [A Synthetic GFP-like Chromophore Undergoes Base-Catalyzed Autoxidation into Acylimine Red Form](#)**

Ivashkin PE, Lukyanov KA, Lukyanov S, et al.

*Journal of Organic Chemistry*, 2011, 76, 8, 2782-2791.

**11. [Synthesis and Properties of Chromophores of Fluorescent Proteins](#)**

P.E. Ivashkin, I.V. Yampolsky, K.A. Lukyanov.

*Russian Journal of Bioorganic Chemistry*, 2009, 35, 6, 652–669.

**10. [Synthesis and Spectral and Chemical Properties of the Yellow Fluorescent Protein zFP538 Chromophore](#)**

Yampolsky I.V., Balashova T.A., Lukyanov K.A.

*Biochemistry*, 2009, 48, 33, 8077-8082.

**9. [Green fluorescent proteins are light-induced electron donors](#)**

Bogdanov A.M., Mishin A.S., Yampolsky I.V., et al.

*Nature Chemical Biology*, 2009, 5, 7, 459-461.

**8. [Synthesis and properties of the red chromophore of the green-to-red photoconvertible fluorescent protein Kaede and its analogs](#)**

Yampolsky I.V., Kislukhin A.A., Amatov T.T., et al.

*Bioorganic Chemistry*, 2008, 36, 1-3, 96-104.

**7. [The first mutant of the \*Aequorea victoria\* green fluorescent protein that forms a red chromophore](#)**

Mishin A.S., Subach F.V., Yampolsky I.V., et al.

*Biochemistry*, 2008, 47, 16, 4666-4673.

**6. [Structural basis for the fast maturation of Arthropoda green fluorescent protein.](#)**

Evdokimov AG, Pokross ME, Egorov NS, et al.

*EMBO reports*, 2006,7,10, 1006-1012.

**5. [Synthesis and properties of the chromophore of the asFP595 Chromoprotein from \*Anemonia sulcata\*](#)**

Yampolsky I.V., Remington S.J., Martynov V.I., et al.

*Biochemistry*, 2005, 44, 15, 5788-5793.

**4. [New class of blue animal pigments based on Frizzled and Kringle protein domains](#)**

Bulina M.E., Lukyanov K.A., Yampolsky I.V., et al.

*Journal of Biological Chemistry*, 2004, 279, 42, 43367-43370.

**3. [Allylboration of functionalized isoquinolines](#)**

Pastukhov F.V., Yampolsky I.V., Bubnov Y.N.

*Journal of Organometallic Chemistry*, 2002, 657, 1-2, 123-128.

**2. [Allylic boron and zinc derivatives in synthesis and transformations of nitrogen heterocycles](#)**

Bubnov Y.N., Klimkina E.V., Zhun' I.V., F. V. Pastukhov, I. V. Yampolsky.

*Pure and Applied Chemistry*, 2000, 72, 9, 1641-1644.

**1. [A convenient synthesis of 2,2-diallylated nitrogen heterocycles by allylboration of lactams](#)**

Bubnov Y.N., Pastukhov F.V., Yampolsky I.V.



## **PATENTS**

### **8. The use of the cofactor FO and its analogs as a component of the bioluminescent reaction**

I.V. Yampolsky.

Application for the Russian patent №2020122667, priority date 07/08/2020

### **7. Method and agents for detecting luciferase activity**

I.V. Yampolsky.

Application for the Russian patent №2020121381, priority date 06/26/2020

### **6. Method and agents for detecting luciferase activity**

I.V. Yampolsky.

Russian patent №2744869, priority date 08/08/2019

### **5. Enzymes of luciferin biosynthesis and their application**

I.V. Yampolsky.

Russian patent №2730038, priority date 06/28/2018

### **4. Novel luciferases and methods for using same**

I.V. Yampolsky.

PCT/RU2017/050125 WO/2018/139956

### **3. Method and agents for detecting luciferase activity**

I.V. Yampolsky, V.N. Petushkov, K.V. Purtov, N.S. Rodionova, M.S. Baranov.

PCT/RU2016/000229 WO/2016/144212

### **2. Boron-containing 5-arylidene-3,5-dihydro-4H-imidazol-4-ones**

I.V. Yampolsky, K.A. Lukyanov, M.S. Baranov.

US9133220B2 WO/2012/RU00682

### **1. Organo-imido molybdenum complexes as friction modifier additives for lubricant compositions**

C. Migdal, P.E. Stott, N.A. Ustynyuk, D.A. Zaroubine, I.V. Yampolsky, K.A. Rufanov.

US7229951B2

## Invited Talks

**10. 21st International Symposium on Bioluminescence and Chemiluminescence & XIX International Symposium on Luminescence Spectrometry, Gijón, Spain, May 31 – June 3, 2022.**  
Fungal bioluminescence system as a genetically encodable tool. Invited keynote lecture.

**9. [The 78th Annual Meeting of the Japanese Society of Microscopy](#), Fukushima, Japan, May 11-13, 2022.**

Live imaging in plants using autonomous genetically encoded bioluminescence. Invited keynote lecture.

**8. [Yale University, School of Medicine](#), New Haven, CT, USA, January 16, 2020.**

New bioluminescence systems: creating autonomously luminescent eukaryotes. Invited lecture.

**7. [Resonance Bio International Symposium](#), Tokyo University of Science, Japan, October 30 - November 1, 2019.**

New bioluminescence systems: creating autonomously luminescent eukaryotes. Plenary lecture.

**6. 28th European Colloquium on Heterocyclic Chemistry Lecce (Italy), September 2-5, 2018.**  
Invited lecture.

**5. The 43<sup>rd</sup> FEBS Congress 7-12 July 2018. Prague, Czech Republic.**

New bioluminescence systems: substrates, enzymes and substrate biosynthesis pathways. Invited lecture. Symposium chair.

**4. 20th International Symposium on Bioluminescence and Chemiluminescence, Nantes, France, 28-31 May, 2018.**

A genetically encodable fungal bioluminescent system. Invited lecture.

**3. 20th International Symposium on Bioluminescence and Chemiluminescence. Nantes, France, 28-31 May, 2018.**

Chemistry of Light: fluorescent proteins luciferins luciferases. Plenary lecture.

**2. The FEBS Journal 284 (Suppl. 1) p. 189, P.1.3-027 DOI: 10.1111/febs.14174.**

Fungal bioluminescence system: luciferin, luciferase and luciferin biosynthesis. Invited talk, Symposium talk.

**1. 19<sup>th</sup> International Symposium on Bioluminescence and Chemiluminescence, May 29 – June 2, 2016, Tsukuba, Japan.**

Invited lecture.

## Books

**2. [Bioluminescence: Chemical Principles and Methods, 3<sup>rd</sup> Edition](#).**

O. Shimomura and I.V. Yampolsky (Eds).

*World Scientific Publishing Company, Singapore*, 2019, ISBN 9813277106, 556 pages.

**1. [Allylboration of Nitrogen Heterocycles. In: Contemporary Boron Chemistry](#)**

M. G. Davidson, A. K. Hughes, T. B. Marder and K. Wade (Eds) Yu. N. Bubnov, E. V. Klimkina, I. V. Zhun', F. V. Pastukhov, I. V. Yampolsky.

*The Royal Society of Chemistry, Cambridge*, 2000, ISBN 0-85404-835-9, 446-449.

## Awards

Detlef Schroeder medal 2019 (from IOCB, Czech)



## **PhD Thesis Advisor**

Mikhail Baranov, graduated in 2013, IBCh RAS

Alexandra Tsarkova, graduated in 2015, IBCh RAS.

Zinaida Kaskova (Osipova), graduated in 2016, IBCh RAS.

Alexei Kotlobay, graduated in 2019, IBCh RAS.

Nadezhda Baleeva, co-advisor, graduated in 2019, IBCh RAS

Nadezhda Markina, graduated in 2020, IBCh RAS

Ksenia Palkina, ongoing

Tatiana Karataeva, ongoing

## **Grants**

Iliia Yampolsky is co-performer of the following financially supported scientific projects:

1. Russian Foundation for Basic Research grants

1996-2013:

№ 96-03-32555, 99-03-33125a

Ongoing grants:

18-29-08049 (support for 2018-2021 years), 18-34-20134 (support for 2018-2020 years);

— President of Russian Federation Council for State Support of the Leading Scientific Schools grant № LS-2605.2020.4;

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