

Electronic Supporting Information

for the article

Design and Synthesis of Lipid-Mimetic Organometallic Complexes and their Liposomal Formulation for *in vitro* and *in vivo* Application in Luminescent Bioimaging

Julia R. Shakirova,¹ Amir Sadeghi,² Alla A. Koblova,¹ Pavel S. Chelushkin,¹ Elisa Toropainen,² Leena-Stiina Kontturi,³ Tatu Lajunen,^{3,4} Sergey P. Tunik,*¹ Arto Urtti*^{1,2,3}

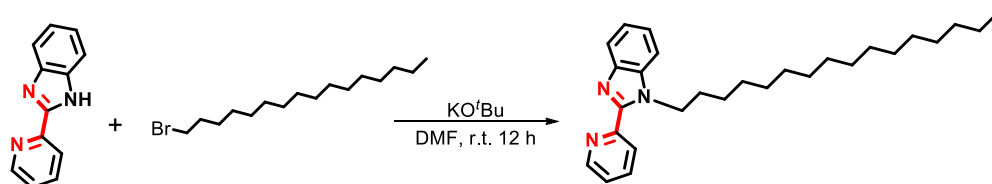
¹ *St. Petersburg State University, Institute of Chemistry, Universitetskii pr., 26, 198504 St. Petersburg, Russia. E-mail: sergey.tunik@spbu.ru*

² *School of Pharmacy, Faculty of Health Sciences, University of Eastern Finland, Yliopistonranta 1C, 70211 Kuopio, Finland. E-mail: arto.urtti@uef.fi*

³ *Drug Research Program, Faculty of Pharmacy, University of Helsinki, Viikinkaari 5 E, 00710 Helsinki, Finland*

⁴ *Laboratory of Pharmaceutical Technology, Department of Pharmaceutical Science, Tokyo University of Pharmacy & Life Sciences, 1432-1 Hachioji 192-0392, Tokyo, Japan*

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Scheme S1. Synthesis of pyridine-benzimidazole ligand with inserted C₁₆ aliphatic chain.

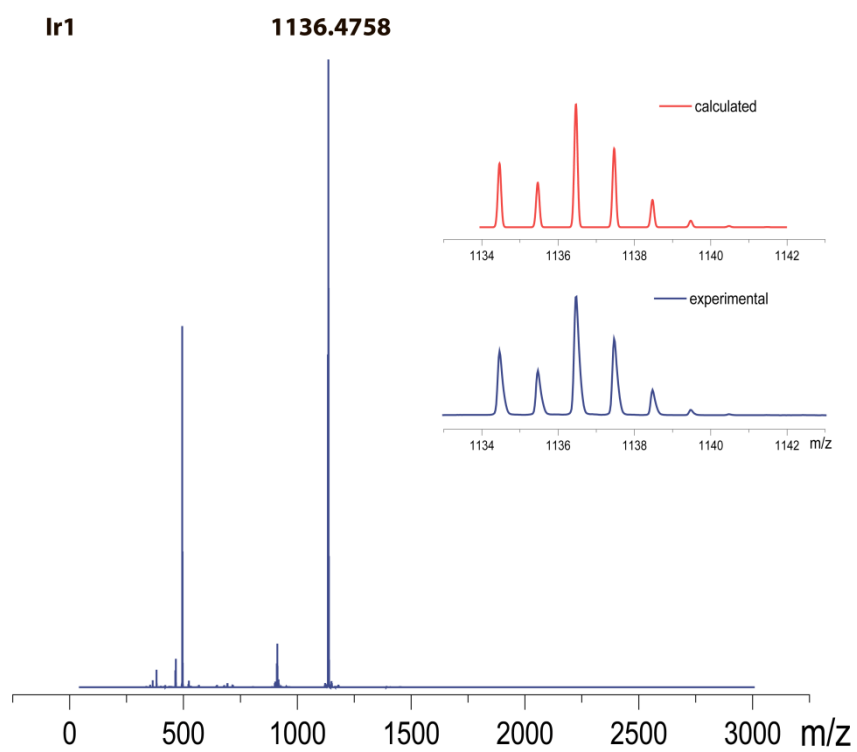


Figure S1. Experimental and calculated ESI⁺ mass-spectra of **Ir1**.

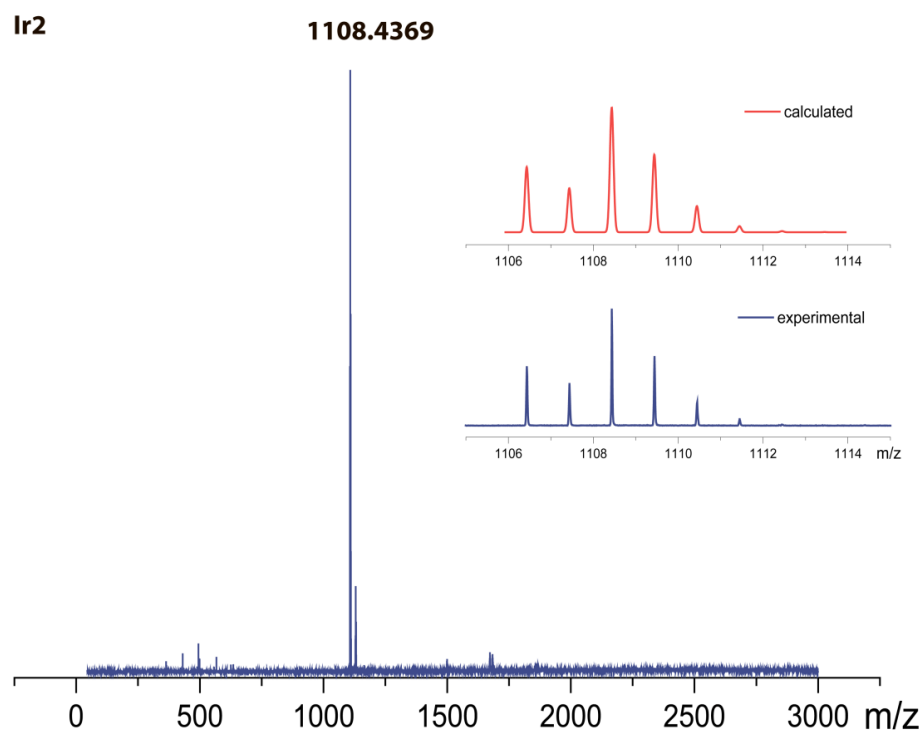


Figure S2. Experimental and calculated ESI⁺ mass-spectra of **Ir2**.

Figure S4. ^1H NMR spectrum of **Ir2**, DMSO- d_6 , 298K.

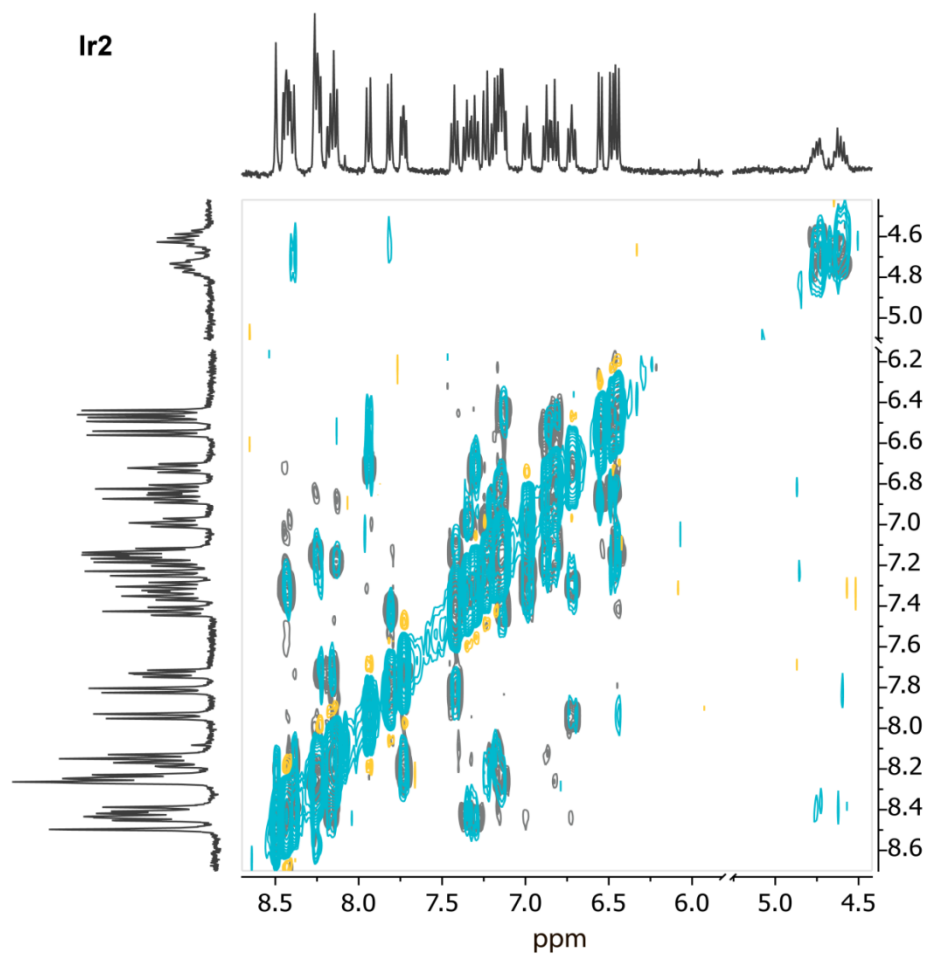


Figure S5. The overlay of the ^1H - ^1H COSY (grey color)/NOESY (cyan and orange color) spectra of **Ir2**, DMSO- d_6 , 298 K.

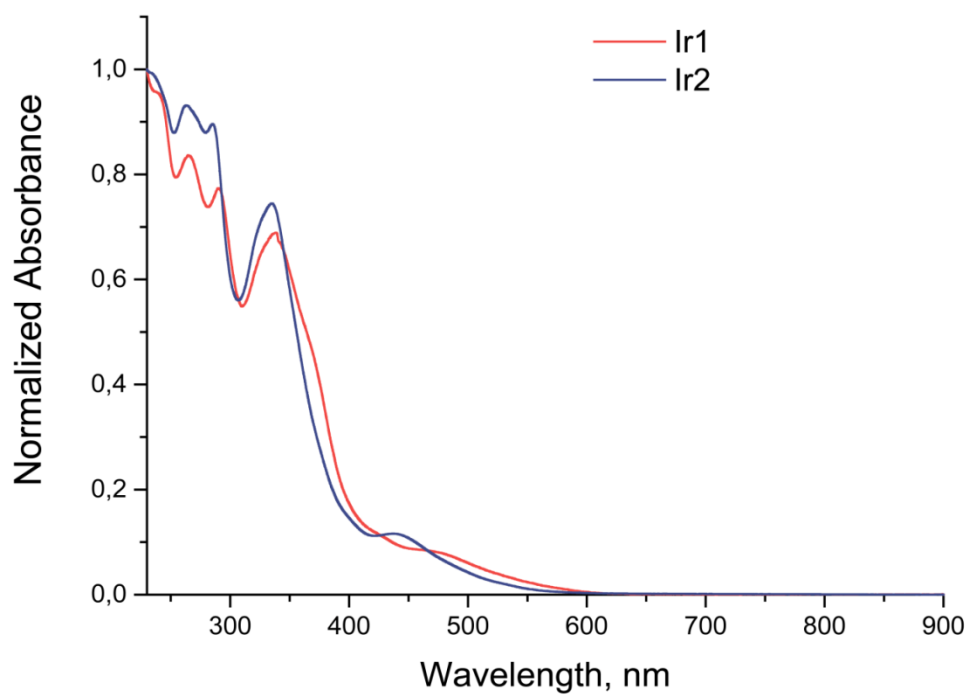
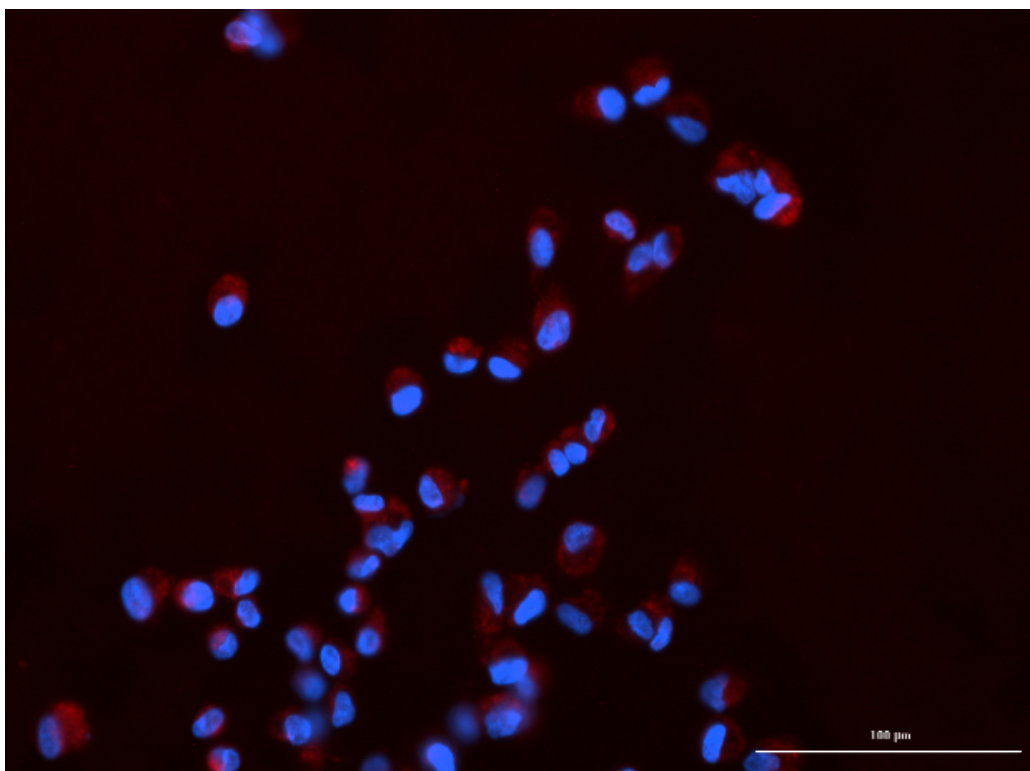


Figure S6. Normalized absorption spectra of complexes **Ir1**, **Ir2** in methanol solution.

A



B

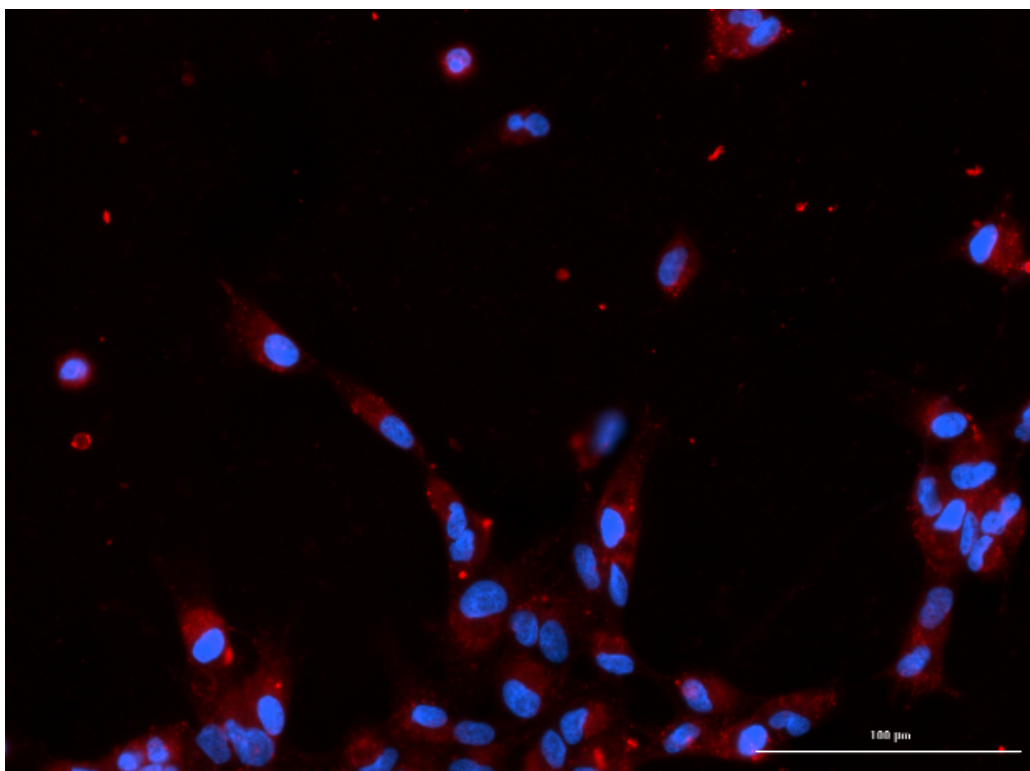


Figure S7. Microphotographs of ARPE-19 cells stained with **Ir1** (red, panel A), **Ir2** (red, panel B), and Hoerchst (blue, panels A-B). Lipid concentration: 0.3 $\mu\text{mol/mL}$. Magnification: 20x. Scale bar: 100 μm .