

# Ivan V Grishagin PhD

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## EXPERIENCE

**2015-present**

*Bioinformatician*

**Rancho BioSciences**

**Rockville, MD**

- R development: code refactoring, debugging, and optimization; [building packages](#).
- [Implemented](#) complex statistical methods and visualization tools into a Protein Array Analyzer R package; developed R-based pipeline for pathway [integration](#) and [visualization](#).
- [VBA development](#): MS Excel add-ins for data curation; MS Word and MS PowerPoint macros.
- Data cleanup, harmonization, and alignment with standardized ontological vocabularies.
- Sequencing, biosensor, biological assay data analysis and visualization.
- Project management, architecture, and specifications; proposal preparation.
- On-site liaison and bioinformatician at [NIH NCATS](#).

**2014-2015**

*Research Fellow*

**Queen's University Belfast, CCRCB**

**Belfast, Northern Ireland**

- Main project: repurposing FDA-approved drugs for blood cancer therapies.
- Developed a solution for automatic [data processing of Illumina BeadArray](#) output with R.
- Analyzed response of leukemia to salinomycin at the transcription level.
- Used connectivity mapping to identify approved drugs efficacious against drivers of leukemia.
- Designed and completed a comprehensive screen of 760 FDA-approved drugs.

**2010-2014**

*Research Assistant*

**University of Southern California, School of Pharmacy**

**Los Angeles, CA**

- Determined high in vitro and in vivo anticancer efficacy of topographical mimetics of HIF1 $\alpha$ .
- Investigated uptake, toxicity, and in vivo anticancer efficacy of rhomboidal Pt(II) metallacycles.
- Designed and completed a screen of 105 compounds in a breast cancer cell line.
- Designed and developed a robust method to count live mammalian cells automatically.
- Supervised and taught undergraduate and junior graduate students.

## SKILLS

- Programming and Data Analysis: R, VBA, [Git](#), [ImageJ Macro Language](#), [JavaScript](#), [HTML5/CSS3](#), [Python](#), Markdown, bash, Cypher, SQL, [data mining and organization](#).
- Cell biology: viability assays, gene expression analysis, western blot, protein array analysis, flow cytometry, molecular cloning, reporter assays high-throughput screening.
- In vivo testing: xenografts, IP/IV injections, in vivo imaging, histology.
- Chemistry: organic synthesis, NMR, HPLC, LC-MS, IR, UV-Vis, dynamic/static light scattering.
- Languages: English (Fluent), Russian (Native), German (Intermediate), French (Intermediate).

## EDUCATION

**University of Southern California, School of Pharmacy**

**Los Angeles, CA**

PhD in Pharmaceutical Sciences (**GPA 3.91**), 2014.

Dissertation: "Small Molecule Modulators of HIF1 $\alpha$  Signaling."

**Lomonosov Moscow State University, Department of Chemistry**

**Moscow, Russia**

Diploma in Polymer Chemistry (**Summa cum Laude**, Gold Medal), 2008.

Thesis: "Formation of Interpolyelectrolyte Complexes in Organic Media of Low Polarity".