Vladimir O. Talibov

Last update: October 13, 2020

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Summary

A protein biochemist with an interest in ligand discovery. Experienced in biophysical and kinetic methods.

Skills

<u>Experimental:</u> Biophysical methods (SPR biosensors, TSA, MST), protein techniques, expression&purification, macromolecular crystallography

Computer: Linux, markup, RDKit, KNIME
Languages: English, Russian, Swedish (basic)

Expertise: Biophysical methods, enzymology, small molecules.

Experience

Researcher

Aug 2019 - current

MAX IV Laboratory, Lund, Sweden

- Development of operation protocols for MAX IV fragment screening facility
- Design, curation and maintenance of in-house fragment library
- BioMAX user support as a beamline scientist, including on-call service.

PhD student, Researcher

2014 - 2019

Uppsala University, Uppsala, Sweden

- Design&development of biophysical and enzymatic assays
- MX studies of protein-ligand complexes
- Maintenance of biosensors and chromatographic equipment.
- Teaching (20%, MSc-level courses)

Laboratory Assistant

2012 - 2014

OOO "Biochip-IMB", Moscow, Russia

- Development and validation of multiplex protein microarray-based clinical diagnostics assays
- QC of proteins, synthetic oligonucleotides and reactive small molecules.

Education

PhD in Biochemistry

2014 - 2019

Uppsala University, Uppsala, Sweden

Advisor: U. Helena Danielson

Thesis: "Interaction kinetic analysis in drug design, enzymology and protein research".

BSc&MSc in Chemistry

2008 - 2013

Moscow State University, Moscow, Russia Specialisation in bioorganic chemistry.

Interests

Molecular recognition, early stage lead discovery, screening techniques.

Publications

Research articles: 8; details are available at GScholar. Other: reviews - 2, book chapters - 1, patents - 1.

- [1] G. M. Lima, V. O. Talibov, E. Jagudin, C. Sele, M. Nyblom, W. Knecht, D. T. Logan, T. Sjögren, and U. Mueller. "FragMAX: the fragment-screening platform at the MAX IV Laboratory". In: Acta Crystallogr., Sect. D: Struct. Biol. 76.8 (2020), pp. 771–777.
- [2] A. Rogstam, M. Nyblom, S. Christensen, C. Sele, V. O. Talibov, T. Lindvall, A. A. Rasmussen, I. Andre, Z. Fisher, W. Knecht, and F. Kozielski. "Crystal Structure of Non-Structural Protein 10 from Severe Acute Respiratory Syndrome Coronavirus-2". In: *Int. J. Mol. Sci.* 19.21 (2020), p. 7375.
- [3] T. Ursby, K. Åhnberg, R. Appio, O. Aurelius, A. Barczyk, A. Bartalesi, M. Bjelčić, F. Bolmsten, Y. Cerenius, R. B. Doak, et al. "BioMAX-the first macromolecular crystallography beamline at MAX IV Laboratory". In: *J. Synchrotron Radiat.* 27.5 (2020).
- [4] J. Yang*, V. O. Talibov*, S. Peintner, C. Rhee, V. Poongavanam, M. Geitmann, M. R. Sebastiano, B. Simon, J. Hennig, D. Dobritzsch, U. H. Danielson, and J. Kihlberg. "Macrocyclic Peptides Uncover a Novel Binding Mode for Reversible Inhibitors of LSD1". In: ACS Omega 8.5 (2020), pp. 3979–3995.
- [5] E. Fabini*, V. O. Talibov*, F. Mihalic, M. Naldi, M. Bartolini, C. Bertucci, A. Del Rio, and U. H. Danielson. "Unveiling the biochemistry of the epigenetic regulator SMYD3". In: *Biochemistry* 58.35 (2019), pp. 3634–3645.
- [6] V. O. Talibov, V. Linkuvienė, U. H. Danielson, and D. Matulis. "Kinetic Analysis of Carbonic Anhydrase–Sulfonamide Inhibitor Interactions". In: *Carbonic Anhydrase as Drug Tarqet*. Springer, Cham, 2019, pp. 125–140.
- [7] V. Linkuviene*, V. O. Talibov*, U. H. Danielson, and D. Matulis. "Introduction of intrinsic kinetics of protein–ligand interactions and their implications for drug design". In: *J. Med. Chem.* 61.6 (2018), pp. 2292–2302.
- [8] C. Seeger, V. O. Talibov, and U. H. Danielson. "Biophysical analysis of the dynamics of calmodulin interactions with neurogranin and Ca2+/calmodulin-dependent kinase II". In: *J. Mol. Recognit.* 30.8 (2017), e2621.
- [9] V. O. Talibov, V. Linkuvienė, D. Matulis, and U. H. Danielson. "Kinetically selective inhibitors of human carbonic anhydrase isozymes I, II, VII, IX, XII, and XIII". In: *J. Med. Chem.* 59.5 (2016), pp. 2083–2093.
- [10] V. I. Butvilovskaya, M. V. Tsybulskaya, A. A. Tikhonov, V. O. Talibov, P. V. Belousov, A. Y. Sazykin, A. M. Schwartz, S. A. Surzhikov, A. A. Stomakhin, O. N. Solopova, et al. "Preparation of recombinant serpins B3 and B4 and investigation of their specific interactions with antibodies using hydrogel-based microarrays". In: *Mol. Biol.* 49.5 (2015), pp. 705–713.
- [11] B. Koos, G. Cane, K. Grannas, L. Löf, L. Arngården, J. Heldin, C.-M. Clausson, A. Klaesson, M. K. Hirvonen, F. M. De Oliveira, et al. "Proximity-dependent initiation of hybridization chain reaction". In: *Nat. Commun.* 6 (2015), p. 7294.
- [12] G. U. Feyzkhanova, M. A. Filippova, V. O. Talibov, E. I. Dementieva, V. V. Maslennikov, Y. P. Reznikov, N. Offermann, A. S. Zasedatelev, A. Y. Rubina, and M. Fooke-Achterrath. "Development of hydrogel biochip for in vitro allergy diagnostics". In: *J. Immunol. Methods* 406 (2014), pp. 51–57.
- [13] A. Y. Rubina, G. U. Feizkhanova, M. A. Filippova, V. O. Talibov, M. Fooke-Achterrath, and A. S. Zasedatelev. "Multiplex assay of allergen-specific and total immunoglobulins of E and G classes in the biochip format". In: *Dokl. Biochem. Biophys.* 447.1 (2012), p. 289.