

CURRICULUM VITAE

Dmitry Svetlichnyy

EDUCATION

- 2016 **University of Leuven (KU Leuven), Belgium**
Faculty of Medicine
Doctoral School of Biomedical Sciences
Laboratory of Computational Biology
PhD degree in Biomedical Sciences
Thesis: Identification of cis-regulatory modules and non-coding variation using machine learning methods
- 2012 **Moscow State University**
Faculty of Computational Mathematics and Cybernetics
Specialist degree in Applied Mathematics and Computer Science
- 2008 **I.M. Sechenov Moscow Medical Academy**
Medical Faculty
Specialist degree in Medicine

RESEARCH ACTIVITY

- Dec. 2016 - current **Research Scientist, Skoltech (Skolkovo Institute of Science and Technology), Moscow, Russia**
- 2009-2012 **Institute for Systems Biology SPb (ISB SPb), Moscow, Russia**
- 2007-2009 **The Engelhardt Institute of Molecular Biology of the Russian Academy of Sciences (EIMB RAS), Moscow, Russia**

PRESENTATIONS AT SCIENTIFIC EVENTS

- 1) Tatiana Karelina, Oleg Demin, Kirill Zhudnikov, **Dmitry Svetlichnyy**, Oleg Demin Jr, David Fairman, and Balaji Agoram(2010) Can systems modeling approach be used to understand complex PK-PD relationships? A case study of 5-lipoxygenase inhibition by Zileuton. Population Approach Group Europe meeting. 8-11 June 2010, Berlin, Germany. (PAGE 19 (2010) Abstr 1746 [www.page-meeting.org/?abstract=1746]). (**poster** at international conference)
- 2) O. Demin, T. Karelina, K. Zhudnikov, **D. Svetlichnyy**, O.Demin Jr, D. Fairman, B. Agoram(2011) Application of systems pharmacology modeling approach to identify possible mechanisms underlying complex dose-time effect relationships observed in clinical trials of 5-lipoxygenase inhibitor zileuton. The 12th International Conference on Systems Biology (ICSB), 28 August-01 September 2011, Heidelberg/Mannheim, Germany. (poster at international conference)
- 3) **Svetlichnyy D.**, Peskov K., Demidenko A., Demin O, Kraynov E, Spilker M. (2011) Systems modeling of integrin avb3 signaling pathway. The 12th International Conference on Systems Biology (ICSB), 28 August-01 September 2011, Heidelberg/Mannheim, Germany. (**poster** at international conference)
- 4) **Dmitry Svetlichnyy**, Hana Imrichova, Stein Aerts (2013) Prediction of transcriptional targets using advanced enhancer models. December 9-10, 2013, Brussels, Belgium, BeNeLux Bioinformatics Conference. (**sectional talk** at international conference)
- 5) Imrichova, H., Verfaillie, A., Kalender Atak, Z., Herrmann, C., Hulselmans, G., Christiaens, V., Dewaele, M., Rambow, F., Luciani, F., **Svetlichnyy, D.**, Van den Mooter, L., Claerhout, S., Fiers, M., Halder, G., Marine, C., Aerts, S. (2014). Melanoma transcriptome and chromatin profiling identifies

a proliferative SOX10/MITF gene network and an AP-1/TEADs invasive network. EMBO Conference: "From Functional Genomics to Systems Biology". EMBL Heidelberg, 08-11 November 2014. (**poster** at international conference)

6) Dmitry Svetlichnyy, Hana Imrichova, Zeynep Kalender Atak, Stein Aerts (2015). Estimating the impact of cis-regulatory variation in cancer genomes using enhancer prediction models and matched genome-epigenome-transcriptome data. December 7-8, 2015, Antwerp, Belgium, BeNeLux Bioinformatics Conference (**poster** at international conference)

7) O. Demin, T. Karelina, K. Zhudenkov, **D. Svetlichnyy**, O. Demin Jr, D. Fairman, B. Agoram (2011) Application of systems pharmacology modeling approach to identify possible mechanisms underlying complex dose-time effect relationships observed in clinical trials of 5-lipoxygenase inhibitor zileuton. The 12th International Conference on Systems Biology (ICSB), 28 August-01 September 2011, Heidelberg/Mannheim, Germany. (**poster** at international conference)

OTHER PROFESSIONAL ACTIVITY

Supervision of Master thesis student: Maryam Omrani (Bioinformatics)

Teaching experience: Practical exercises in Biomedical Sources of Information (University of Leuven; Bachelor programme in Biomedical Sciences)

PUBLICATIONS IN PEER-REVIEWED JOURNALS (indexed by Scopus/WoS)

1) Annelien Verfaillie, **Dmitry Svetlichnyy**, Hana Imrichova, Kristofer Davie, Mark Fiers, Zeynep Kalender Atak, Gert Hulselmans, Valerie Christiaens, Stein Aerts. Multiplex enhancer-reporter assays uncover unsophisticated TP53 enhancer logic. *Genome Res.* 2016 Jul;26(7):882-95. doi: 10.1101/gr.204149.116

2) **Svetlichnyy D**, Imrichova H, Fiers M, Kalender Atak Z, Aerts S. Identification of High-Impact cis-Regulatory Mutations Using Transcription Factor Specific Random Forest Models. *PLoS Comput Biol.* 2015 Nov 12;11(11):e1004590. doi: 10.1371/journal.pcbi.1004590. eCollection 2015 Nov.

3) Annelien Verfaillie, Hana Imrichova, Zeynep Kalender Atak, Michael Dewaele, Florian Rambow, Gert Hulselmans, Valerie Christiaens, **Dmitry Svetlichnyy**, Flavie Luciani, Laura Van den Mooter, Sofie Claerhout, Mark Fiers, Fabrice Journe, Ghanem-Elias Ghanem, Carl Herrmann, Georg Halder, Jean-Christophe Marine, and Stein Aerts. Decoding the regulatory landscape of melanoma reveals TEADS as regulators of the invasive cell state. *Nature Communications* 2015, 6, 6683

4) Janky R, Verfaillie A, Imrichová H, Van de Sande B, Standaert L, Christiaens V, Hulselmans G, Herten K, Naval Sanchez M, Potier D, **Svetlichnyy D**, Kalender Atak Z, Fiers M, Marine JC, Aerts S. iRegulon: From a Gene List to a Gene Regulatory Network Using Large Motif and Track Collections. *PLoS Comput Biol.* 2014 Jul 24;10(7):e1003731

5) O Demin, T Karelina, **D Svetlichnyy**, E Metelkin, G Speshilov, O Demin, D Fairman, P H van der Graaf and B M Agoram. Systems Pharmacology Models Can Be Used to Understand Complex Pharmacokinetic-Pharmacodynamic Behavior: An Example Using 5-Lipoxygenase Inhibitors. *CPT: Pharmacometrics & Systems Pharmacology* (2013) 2, e74; doi:10.1038/psp.2013.49

6) Tatiana A Karelina, Kirill V Zhudenkov, Oleg O Demin, **Dmitry V Svetlichnyy**, Balaji Agoram, David Fairman and Oleg V Demin. Regulation of leukotriene and 5oxoETE synthesis and the effect of 5-lipoxygenase inhibitors: a mathematical modeling approach. *BMC Systems Biology* 2012, 6:141. doi:10.1186/1752-0509-6-141