



Short Curriculum Vitae: Petros Kolovos

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| Current Position: | Assistant Professor of Systems Biology, Department of Molecular Biology and Genetics, Democritus University of Thrace, Alexandroupolis, Greece. |
| Undergraduate Education: | Bachelor in Biology, Aristotle University of Thessaloniki, Greece |
| Post-graduate Education: | <ul style="list-style-type: none">• Master by Research in Reproductive Biology, University of Edinburgh, Scotland, UK• PhD in Molecular Biology and Computational Biology, Department of Cell Biology, Erasmus MC, Rotterdam, The Netherlands• Postdoctoral researcher. Department of Cell Biology, Erasmus MC, Rotterdam, The Netherlands• Postdoctoral researcher. BRIC Institute, Copenhagen, Denmark |
| Areas of Interest | Systems Biology. The bimodal role and dynamics of transcription factors in complex processes of development/differentiation as well as their role in the spatiotemporal organization of chromatin architecture in various biological systems. The holistic approaches can redefine the way we approach the dynamic interactions between the compounds of the nucleus, between a cell and its environment and can lead to the development of the knowledge forming biological networks and regulating the properties of biological systems |
| Distinctions | Referee in various international scientific journals |
| Funding | <ul style="list-style-type: none">• 2017. Rubicon NWO Post-Doctoral Fellowship (176.998 Euro)• 2019. Marie Curie Individual Post-Doctoral Fellowship (212.194,80, Euro) |
| Representative publications | <ul style="list-style-type: none">• Yu <i>et al.</i> The dynamic emergence of GATA1 complexes identified in in vitro ES differentiation and in vivo mouse fetal liver. (2019) Haematologica. Oct 3• Laugsch M <i>et al.</i> Modeling the Pathological Long-Range Regulatory Effects of Human Structural Variation with Patient-Specific hiPSCs. (2019) Cell Stem Cell. May 2.• Kolovos P* <i>et al.</i> Investigation of the spatial structure and interactions of the genome at sub-kilobase-pair resolution using T2C. (2018) Nature Protocols. Mar;13 (*Corresponding authors)• Cruz-Molina S <i>et al.</i> PRC2 facilitates the regulatory topology required for poised enhancer function during pluripotent stem cell differentiation. (2017) Cell Stem Cell. Feb 28.• Zuin J <i>et al.</i> Role of the lncRNA NIPBL-AS1 and identification of a distal enhancer element. (2017) PLoS Genet. Dec 20• Chondrou V <i>et al.</i> Whole transcriptome analysis of human erythropoietic cells during ontogenesis suggests a role of VEGFA gene as modulator of fetal hemoglobin and pharmacogenomic biomarker of treatment response to hydroxyurea in β-type hemoglobinopathy patients. (2017) Hum Genomics. Oct 23 |

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- **Kolovos P*** *et al.* Binding of nuclear factor kappa-B to non-canonical consensus sites reveals its multimodal role during the early inflammatory response. (2016) **Genome Research**. Nov; 26 (11) (*Corresponding authors)
 - Brant L *et al.* Exploiting native forces to capture chromosome conformation in mammalian cell nuclei. (2016) **Mol Syst Biol**. Dec 9;12(12)
 - Knoch TA *et al.* The detailed 3D multi-loop aggregate/rosette chromatin architecture and functional dynamic organization of the human and mouse genomes. (2016) **Epigenetics Chromatin** 9: 58
 - Tresini M *et al.* The core spliceosome as target and effector of non-canonical ATM signalling. (2015) **Nature**. Jul 2;523(7558).
 - Caputo L *et al.* The Isl1/Ldb1 complex orchestrates heart-specific chromatin organization and transcriptional regulation. (2015) **Cell Stem Cell**. Sep 3;17(3).
 - Stadhouders R *et al.* Control of developmentally primed erythroid genes by combinatorial co-repressor actions. (2015) **Nat Comm**. Nov 23;6.
 - Ferri F *et al.* TRIM33 switches off *Ifnb1* gene transcription during the late phase of macrophage activation. (2015) **Nat. Comm**. Nov 23;6.
 - Zuin J *et al.* Cohesin and CTCF differentially affect chromatin architecture and gene expression in human cells. (2014) **PNAS**. Jan 21;111(3).
 - Stadhouders R *et al.* Pre-B cell receptor signaling induces immunoglobulin κ locus accessibility by functional redistribution of enhancer-mediated chromatin interactions. (2014) **PLoS Biol**. Feb 18.
 - **Kolovos P** *et al.* Targeted Chromatin Capture (T2C): a novel high resolution high throughput method to detect genomic interactions and regulatory elements. (2014) **Epigenetics Chromatin**. Jun 16;7:10.
 - Diermeier S*, **Kolovos P***, *et al.* TNF α signalling primes chromatin for NF-kappaB binding and induces rapid and widespread nucleosome repositioning. (2014) **Genome Biology**. Dec 3;15(12). (*Equal contribution)
 - Stadhouders R*, **Kolovos P***, Brouwer R*, *et al.* Multiplexed chromosome conformation capture sequencing for rapid genome-scale high-resolution detection of long-range chromatin interactions. (2013) **Nature Protocols**. Mar;8(3). (*Equal contribution)
 - van den Driesche S *et al.* Inter-relationship between testicular dysgenesis and Leydig cell function in the masculinization programming window in the rat. (2012) **PLoS One**. 2012;7(1).
 - **Kolovos P**, *et al.* Enhancers and silencers: an integrated and simple model for their function. (2012) **Epigenetics Chromatin**. Jan 9;5(1):1.
 - Stadhouders R *et al.* Transcription regulation by distal enhancers: who's in the loop? (2012) **Transcription**. Jul-Aug;3(4).
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