# Mikhail A Panteleev

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 113 papers | 3,565 citations | 136950 32 h-index | 161849 54 g-index |
| 115 all docs | 115 docs citations | 115 times ranked | 2783 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Platelet microparticle membranes have 50- to 100-fold higher specific procoagulant activity than activated platelets. Thrombosis and Haemostasis, 2007, 97, 425-434. | 3.4 | 460 |
| 2 | Platelet microparticle membranes have 50- to 100-fold higher specific procoagulant activity than activated platelets. Thrombosis and Haemostasis, 2007, 97, 425-34. | 3.4 | 185 |
| 3 | Lymph node cortical sinus organization and relationship to lymphocyte egress dynamics and antigen exposure. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 20447-20452. | 7.1 | 139 |
| 4 | Spatial Propagation and Localization of Blood Coagulation Are Regulated by Intrinsic and Protein C Pathways, Respectively. Biophysical Journal, 2006, 90, 1489-1500. | 0.5 | 126 |
| 5 | Coagulation factors bound to procoagulant platelets concentrate in cap structures to promote clotting. Blood, 2016, 128, 1745-1755. | 1.4 | 90 |
| 6 | Initiation and propagation of coagulation from tissue factorâ€bearing cell monolayers to plasma: initiator cells do not regulate spatial growth rate. Journal of Thrombosis and Haemostasis, 2005, 3, 321-331. | 3.8 | 88 |
| 7 | Thrombin Activity Propagates in Space During Blood Coagulation as an Excitation Wave. Biophysical Journal, 2012, 103, 2233-2240. | 0.5 | 79 |
| 8 | Procoagulant Platelets Form an Î±-Granule Protein-covered â€œCapâ€•on Their Surface That Promotes Their Attachment to Aggregates. Journal of Biological Chemistry, 2013, 288, 29621-29632. | 3.4 | 74 |
| 9 | Clot Contraction Drives the Translocation of Procoagulant Platelets to Thrombus Surface. Arteriosclerosis, Thrombosis, and Vascular Biology, 2019, 39, 37-47. | 2.4 | 74 |
| 10 | Platelet-derived extracellular vesicles infiltrate and modify the bone marrow during inflammation. Blood Advances, 2020, 4, 3011-3023. | 5.2 | 71 |
| 11 | Dynamics of calcium spiking, mitochondrial collapse and phosphatidylserine exposure in platelet subpopulations during activation. Journal of Thrombosis and Haemostasis, 2016, 14, 1867-1881. | 3.8 | 66 |
| 12 | Modelling of thrombus growth in flow with a DPD-PDE method. Journal of Theoretical Biology, 2013, 337, 30-41. | 1.7 | 60 |
| 13 | Two subpopulations of thrombin-activated platelets differ in their binding of the components of the intrinsic factor X-activating complex. Journal of Thrombosis and Haemostasis, 2005, 3, 2545-2553. | 3.8 | 57 |
| 14 | Epidemiology of venous thromboembolism (<scp>VTE</scp>) associated with pregnancy. Birth Defects Research Part C: Embryo Today Reviews, 2015, 105, 167-184. | 3.6 | 57 |
| 15 | Predicting prothrombotic tendencies in sepsis using spatial clot growth dynamics. Blood Coagulation and Fibrinolysis, 2012, 23, 498-507. | 1.0 | 56 |
| 16 | Modelling of plateletâ€“fibrin clot formation in flow with a DPDâ€“PDE method. Journal of Mathematical Biology, 2016, 72, 649-681. | 1.9 | 55 |
| 17 | Mathematical Modeling and Computer Simulation in Blood Coagulation. Pathophysiology of Haemostasis and Thrombosis: International Journal on Haemostasis and Thrombosis Research, 2005, 34, 60-70. | 0.3 | 54 |
| 18 | Hemostasis and thrombosis beyond biochemistry: roles of geometry, flow and diffusion. Thrombosis Research, 2015, 136, 699-711. | 1.7 | 51 |

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|---|---|---|---|
| 19 | Circulating Contact-Pathway-Activating Microparticles Together with Factors IXa and XIa Induce Spontaneous Clotting in Plasma of Hematology and Cardiologic Patients. PLoS ONE, 2014, 9, e87692. | 2.5 | 49 |
| 20 | Improvement of spatial fibrin formation by the anti-TFPI aptamer BAX499: changing clot size by targeting extrinsic pathway initiation. Journal of Thrombosis and Haemostasis, 2011, 9, 1825-1834. | 3.8 | 48 |
| 21 | Identification of Different Proaggregatory Abilities of Activated Platelet Subpopulations. Biophysical Journal, 2012, 102, 2261-2269. | 0.5 | 48 |
| 22 | Pharmacological Blockade of Glycoprotein VI Promotes Thrombus Disaggregation in the Absence of Thrombin. Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, 2127-2142. | 2.4 | 48 |
| 23 | Blood flow controls coagulation onset via the positive feedback of factor VII activation by factor Xa. BMC Systems Biology, 2010, 4, 5. | 3.0 | 46 |
| 24 | Two Types of Procoagulant Platelets Are Formed Upon Physiological Activation and Are Controlled by Integrin Î± <sub>IIb</sub> Î² <sub>3</sub>. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 2475-2483. | 2.4 | 46 |
| 25 | Systems biology insights into the meaning of the platelet's dualâ€receptor thrombin signaling. Journal of Thrombosis and Haemostasis, 2016, 14, 2045-2057. | 3.8 | 45 |
| 26 | Task-Oriented Modular Decomposition of Biological Networks: Trigger Mechanism in Blood Coagulation. Biophysical Journal, 2010, 98, 1751-1761. | 0.5 | 44 |
| 27 | Compartmentalized calcium signaling triggers subpopulation formation upon platelet activation through PAR1. Molecular BioSystems, 2015, 11, 1052-1060. | 2.9 | 43 |
| 28 | Investigation of the phenotype heterogeneity in severe hemophilia A using thromboelastography, thrombin generation, and thrombodynamics. Thrombosis Research, 2013, 131, e274-e280. | 1.7 | 41 |
| 29 | Formation of coated platelets is regulated by the dense granule secretion of adenosine 5â€²diphosphate acting via the P2Y12 receptor. Journal of Thrombosis and Haemostasis, 2008, 6, 1603-1605. | 3.8 | 39 |
| 30 | Threshold of Microvascular Occlusion: Injury Size Defines the Thrombosis Scenario. Biophysical Journal, 2015, 109, 450-456. | 0.5 | 37 |
| 31 | Identification of signal transduction pathways involved in the formation of platelet subpopulations upon activation. British Journal of Haematology, 2012, 157, 105-115. | 2.5 | 36 |
| 32 | Blood Coagulation and Propagation of Autowaves in Flow. Pathophysiology of Haemostasis and Thrombosis: International Journal on Haemostasis and Thrombosis Research, 2005, 34, 135-142. | 0.3 | 33 |
| 33 | In vitro flow based systems to study platelet function and thrombus formation: Recommendations for standardization: Communication from the SSC on Biorheology of the ISTH. Journal of Thrombosis and Haemostasis, 2020, 18, 748-752. | 3.8 | 33 |
| 34 | Platelet Surface-Associated Activation and Secretion-Mediated Inhibition of Coagulation Factor XII. PLoS ONE, 2015, 10, e0116665. | 2.5 | 31 |
| 35 | Thromboplastin immobilized on polystyrene surface exhibits kinetic characteristics close to those for the native protein and activates in vitro blood coagulation similarly to thromboplastin on fibroblasts. Biochemistry (Moscow), 2010, 75, 734-743. | 1.5 | 30 |
| 36 | Kinetics of Factor X activation by the membrane-bound complex of Factor IXa and Factor VIIIa. Biochemical Journal, 2004, 381, 779-794. | 3.7 | 29 |

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|---|---|---|---|
| 37 | Mathematical Models of Blood Coagulation and Platelet Adhesion: Clinical Applications. Current Pharmaceutical Design, 2007, 13, 1457-1467. | 1.9 | 29 |
| 38 | Numerical Modelling of Cell Distribution in Blood Flow. Mathematical Modelling of Natural Phenomena, 2014, 9, 69-84. | 2.4 | 29 |
| 39 | Flow cytometry for pediatric platelets. Platelets, 2019, 30, 428-437. | 2.3 | 29 |
| 40 | Tissue factor pathway inhibitor. FEBS Journal, 2002, 269, 2016-2031. | 0.2 | 28 |
| 41 | Mechanisms of action of recombinant activated factor VII in the context of tissue factor concentration and distribution. Blood Coagulation and Fibrinolysis, 2008, 19, 743-755. | 1.0 | 28 |
| 42 | Positive Feedback Loops for Factor V and Factor VII Activation Supply Sensitivity to Local Surface Tissue Factor Density During Blood Coagulation. Biophysical Journal, 2011, 101, 1816-1824. | 0.5 | 27 |
| 43 | Mechanisms of increased mitochondria-dependent necrosis in Wiskott-Aldrich syndrome platelets. Haematologica, 2020, 105, 1095-1106. | 3.5 | 27 |
| 44 | Wall shear rates in human and mouse arteries: Standardization of hemodynamics for in vitro blood flow assays: Communication from the ISTH SSC subcommittee on biorheology. Journal of Thrombosis and Haemostasis, 2021, 19, 588-595. | 3.8 | 27 |
| 45 | Classic and Global Hemostasis Testing in Pregnancy and during Pregnancy Complications. Seminars in Thrombosis and Hemostasis, 2016, 42, 696-716. | 2.7 | 26 |
| 46 | Anticoagulant therapy. Blood Coagulation and Fibrinolysis, 2012, 23, 482-493. | 1.0 | 25 |
| 47 | Bleeding tendency and platelet function during treatment with romiplostim in children with severe immune thrombocytopenic purpura. International Journal of Hematology, 2017, 105, 841-848. | 1.6 | 25 |
| 48 | Factor VIIIa regulates substrate delivery to the intrinsic factor X-activating complex. FEBS Journal, 2006, 273, 374-387. | 4.7 | 24 |
| 49 | Global/integral assays in hemostasis diagnostics: promises, successes, problems and prospects. Thrombosis Journal, 2015, 13, 5. | 2.1 | 24 |
| 50 | Effect of Pre-Analytical Conditions on the Thrombodynamics Assay. Thrombosis Research, 2014, 133, 472-476. | 1.7 | 23 |
| 51 | Untangling the complexity of blood coagulation network: use of computational modelling in pharmacology and diagnostics. Briefings in Bioinformatics, 2016, 17, 429-439. | 6.5 | 23 |
| 52 | Sensitivity and Robustness of Spatially Dependent Thrombin Generation and Fibrin Clot Propagation. Biophysical Journal, 2018, 115, 2461-2473. | 0.5 | 23 |
| 53 | Drug-drug interaction of the anti-TFPI aptamer BAX499 and factor VIII: Studies of spatial dynamics of fibrin clot formation in hemophilia A. Thrombosis Research, 2014, 133, 112-119. | 1.7 | 22 |
| 54 | Shear rate gradients promote a bi-phasic thrombus formation on weak adhesive proteins, such as fibrinogen in a VWF-dependent manner. Haematologica, 2020, 105, 2471-2483. | 3.5 | 22 |

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|---|---|---|---|
| 55 | Hysteresis-like binding of coagulation factors X/Xa to procoagulant activated platelets and phospholipids results from multistep association and membrane-dependent multimerization. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1216-1227. | 2.6 | 21 |
| 56 | Acylated 1H-1,2,4-Triazol-5-amines Targeting Human Coagulation Factor XIIa and Thrombin: Conventional and Microscale Synthesis, Anticoagulant Properties, and Mechanism of Action. Journal of Medicinal Chemistry, 2020, 63, 13159-13186. | 6.4 | 21 |
| 57 | Spatial Dynamics of Contact-Activated Fibrin Clot Formationin vitroandin silicoin Haemophilia B: Effects of Severity and Ahemphil B Treatment. Mathematical Modelling of Natural Phenomena, 2006, 1, 124-137. | 2.4 | 20 |
| 58 | Calpain-controlled detachment of major glycoproteins from the cytoskeleton regulates adhesive properties of activated phosphatidylserine-positive platelets. Biochemical Journal, 2016, 473, 435-448. | 3.7 | 19 |
| 59 | Quantitative dynamics of reversible platelet aggregation: mathematical modelling and experiments. Scientific Reports, 2019, 9, 6217. | 3.3 | 19 |
| 60 | Co-ordinated spatial propagation of blood plasma clotting and fibrinolytic fronts. PLoS ONE, 2017, 12, e0180668. | 2.5 | 18 |
| 61 | New Infestin-4 Mutants with Increased Selectivity against Factor XIIa. PLoS ONE, 2015, 10, e0144940. | 2.5 | 17 |
| 62 | Impaired platelet activity and hypercoagulation in healthy term and moderately preterm newborns during the early neonatal period. Pediatric Research, 2019, 85, 63-71. | 2.3 | 17 |
| 63 | On Propagation of Excitation Waves in Moving Media: The FitzHugh-Nagumo Model. PLoS ONE, 2009, 4, e4454. | 2.5 | 16 |
| 64 | Continuous Modeling of Arterial Platelet Thrombus Formation Using a Spatial Adsorption Equation. PLoS ONE, 2015, 10, e0141068. | 2.5 | 16 |
| 65 | Platelet function and bleeding in chronic lymphocytic leukemia and mantle cell lymphoma patients on ibrutinib. Journal of Thrombosis and Haemostasis, 2020, 18, 2672-2684. | 3.8 | 16 |
| 66 | Modeling Thrombus Shell: Linking Adhesion Receptor Properties and Macroscopic Dynamics. Biophysical Journal, 2021, 120, 334-351. | 0.5 | 16 |
| 67 | Control of Platelet CLEC-2-Mediated Activation by Receptor Clustering and Tyrosine Kinase Signaling. Biophysical Journal, 2020, 118, 2641-2655. | 0.5 | 15 |
| 68 | Heterogeneity of Integrin Î±IIbÎ²3 Function in Pediatric Immune Thrombocytopenia Revealed by Continuous Flow Cytometry Analysis. International Journal of Molecular Sciences, 2020, 21, 3035. | 4.1 | 15 |
| 69 | Relationships of glycoproteins IIb-IIIa and Ib content with mean platelet volume and their genetic polymorphisms. Blood Coagulation and Fibrinolysis, 2014, 25, 128-134. | 1.0 | 14 |
| 70 | Redistribution of TPA Fluxes in the Presence of PAI-1 Regulates Spatial Thrombolysis. Biophysical Journal, 2020, 119, 638-651. | 0.5 | 14 |
| 71 | In vitro flowâ€based assay: From simple toward more sophisticated models for mimicking hemostasis and thrombosis. Journal of Thrombosis and Haemostasis, 2021, 19, 582-587. | 3.8 | 14 |
| 72 | Antiplatelet Agents Can Promote Two-Peaked Thrombin Generation in Platelet Rich Plasma: Mechanism and Possible Applications. PLoS ONE, 2013, 8, e55688. | 2.5 | 13 |

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|---|---|---|---|
| 73 | Binding of Coagulation Factor XIII Zymogen to Activated Platelet Subpopulations: Roles of Integrin Î±IIbÎ²3 and Fibrinogen. Thrombosis and Haemostasis, 2019, 119, 906-915. | 3.4 | 13 |
| 74 | Longitudinal multiparametric characterization of platelet dysfunction in COVID-19: Effects of disease severity, anticoagulation therapy and inflammatory status. Thrombosis Research, 2022, 211, 27-37. | 1.7 | 12 |
| 75 | Substrate delivery mechanism and the role of membrane curvature in factor X activation by extrinsic tenase. Journal of Theoretical Biology, 2017, 435, 125-133. | 1.7 | 11 |
| 76 | Evolution of platelet function in adult patients with chronic immune thrombocytopenia on romiplostim treatment. British Journal of Haematology, 2019, 187, e38-e42. | 2.5 | 11 |
| 77 | Platelet functional responses and signalling: the molecular relationship. Part 1: responses.. Systems Biology and Physiology Reports, 2021, 1, 20-28. | 0.4 | 11 |
| 78 | New Blood Coagulation Factor XIIa Inhibitors: Molecular Modeling, Synthesis, and Experimental Confirmation. Molecules, 2022, 27, 1234. | 3.8 | 11 |
| 79 | Mathematical Techniques for Understanding Platelet Regulation and the Development of New Pharmacological Approaches. Methods in Molecular Biology, 2018, 1812, 255-279. | 0.9 | 10 |
| 80 | Platelet function and blood coagulation system status in childhood essential thrombocythemia. Platelets, 2020, 31, 1001-1011. | 2.3 | 10 |
| 81 | Effects of bacterial lipopolysaccharides on platelet function: inhibition of weak platelet activation. Scientific Reports, 2020, 10, 12296. | 3.3 | 10 |
| 82 | Hypercoagulation detected by routine and global laboratory hemostasis assays in patients with infective endocarditis. PLoS ONE, 2021, 16, e0261429. | 2.5 | 10 |
| 83 | Interactions Outside the Proteinase-binding Loop Contribute Significantly to the Inhibition of Activated Coagulation Factor XII by Its Canonical Inhibitor from Corn. Journal of Biological Chemistry, 2014, 289, 14109-14120. | 3.4 | 9 |
| 84 | In Silico Hemostasis Modeling and Prediction. Hamostaseologie, 2020, 40, 524-535. | 1.9 | 9 |
| 85 | Asymmetrical Forces Dictate the Distribution and Morphology of Platelets in Blood Clots. Cells, 2021, 10, 584. | 4.1 | 9 |
| 86 | Kinetics and mechanisms of surface-dependent coagulation factor XII activation. Journal of Theoretical Biology, 2015, 382, 235-243. | 1.7 | 8 |
| 87 | Characterization of the Role of Integrin Î±5Î²1 in Platelet Function, Hemostasis, and Experimental Thrombosis. Thrombosis and Haemostasis, 2022, 122, 767-776. | 3.4 | 8 |
| 88 | Mathematical modelling of platelet rich plasma clotting. Pointwise unified model. Russian Journal of Numerical Analysis and Mathematical Modelling, 2018, 33, 265-276. | 0.6 | 7 |
| 89 | Ex vivo observation of granulocyte activity during thrombus formation. BMC Biology, 2022, 20, 32. | 3.8 | 7 |
| 90 | Factor XI and traveling waves: the key to understanding coagulation in hemophilia?. Expert Review of Hematology, 2013, 6, 111-113. | 2.2 | 5 |

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|---|---|---|---|
| 91 | A dynamic remodeling bio-mimic extracellular matrix to reduce thrombotic and inflammatory complications of vascular implants. Biomaterials Science, 2020, 8, 6025-6036. | 5.4 | 5 |
| 92 | Development of a Simple Kinetic Mathematical Model of Aggregation of Particles or Clustering of Receptors. Life, 2020, 10, 97. | 2.4 | 5 |
| 93 | Platelet function and bleeding at different phases of childhood immune thrombocytopenia. Scientific Reports, 2021, 11, 9401. | 3.3 | 5 |
| 94 | Differential Drug Target Selection in Blood Coagulation: What can we get from Computational Systems Biology Models?. Current Pharmaceutical Design, 2020, 26, 2109-2115. | 1.9 | 5 |
| 95 | Analysis of microvascular thrombus mechanobiology with a novel particle-based model. Journal of Biomechanics, 2022, 130, 110801. | 2.1 | 5 |
| 96 | Platelets in COVID-19: â€œinnocent by-standersâ€•or active participants?. Pediatric Hematology/Oncology and Immunopathology, 2021, 20, 184-191. | 0.3 | 4 |
| 97 | Platelet functional responses and signalling: the molecular relationship. Part 2: receptors.. Systems Biology and Physiology Reports, 2021, 1, 13-30. | 0.4 | 4 |
| 98 | Procoagulant impact of the plasmapheresis procedure on coagulation state of collected plasma. Blood Transfusion, 2015, 13, 651-5. | 0.4 | 4 |
| 99 | Bioactive engineered scaffolds based on PCL-PEG-PCL and tumor cell-derived exosomes to minimize the foreign body reaction. Biomaterials and Biosystems, 2022, 7, 100055. | 2.2 | 4 |
| 100 | Determination of fibrin clot growth and spatial thrombin propagation in the presence of different types of phospholipid surfaces. Platelets, 2021, 32, 1031-1037. | 2.3 | 3 |
| 101 | Synthesis of 2H-pyrano[3,2-g]quinolin-2-ones containing a pyrimidinone moiety and characterization of their anticoagulant activity via inhibition of blood coagulation factors Xa and XIa. Chemistry of Heterocyclic Compounds, 2021, 57, 574-580. | 1.2 | 3 |
| 102 | A strong correlation exists between platelet consumption and platelet hyperactivation in COVID-19 patients. Pilot study of the patient cohort from CCH RAS Hospital (Troitsk).. Systems Biology and Physiology Reports, 2021, 1, 1-10. | 0.4 | 3 |
| 103 | Healthy pediatric platelets are moderately hyporeactive in comparison with adultsâ€™ platelets. Platelets, 2022, 33, 727-734. | 2.3 | 3 |
| 104 | Coated platelets introduce significant delay in onset of peak thrombin production: Theoretical predictions. Journal of Theoretical Biology, 2018, 453, 108-116. | 1.7 | 2 |
| 105 | In vitro megakaryocyte culture from human bone marrow aspirates as a research and diagnostic tool. Platelets, 2020, 32, 1-8. | 2.3 | 2 |
| 106 | Systems approaches meet biology and physiology: why do we need yet another journal?. Systems Biology and Physiology Reports, 2021, 1, 1-2. | 0.4 | 2 |
| 107 | Hypochlorite-induced oxidation of fibrinogen: Effects on its thermal denaturation and fibrin structure. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129970. | 2.4 | 2 |
| 108 | Modern aspects of the pathogenesis, diagnosis and therapy of hemostasis disorders in children with acute leukemias. Russian Journal of Pediatric Hematology and Oncology, 2019, 5, 74-85. | 0.3 | 1 |

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|---|---|---|---|
| 109 | Immune thrombocytopenia: what can the systems biology and systems physiology offer?. Systems Biology and Physiology Reports, 2021, 1, 1-9. | 0.4 | 1 |
| 110 | Towards Virtual Coagulation. Pathophysiology of Haemostasis and Thrombosis: International Journal on Haemostasis and Thrombosis Research, 2005, 34, 58-59. | 0.3 | 0 |
| 111 | Response by Nechipurenko et al to Letter Regarding Article, â€œClot Contraction Drives the Translocation of Procoagulant Platelets to Thrombus Surfaceâ€. Arteriosclerosis, Thrombosis, and Vascular Biology, 2019, 39, e290-e291. | 2.4 | 0 |
| 112 | Analyzing the Interaction of Fluorescent-labeled Proteins with Artificial Phospholipid Microvesicles using Quantitative Flow Cytometry. Journal of Visualized Experiments, 2022, , . | 0.3 | 0 |
| 113 | Systems Biology and Physiology Reports in 2021: a yearly report. Systems Biology and Physiology Reports, 2021, 1, 20-21. | 0.4 | 0 |