

# Aiwu Zhou

## List of Publications by Year in descending order

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Version: 2024-02-01

65  
papers

2,732  
citations

186265

28  
h-index

182427

51  
g-index

67  
all docs

67  
docs citations

67  
times ranked

3770  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | How vitronectin binds PAI-1 to modulate fibrinolysis and cell migration. <i>Nature Structural and Molecular Biology</i> , 2003, 10, 541-544.  | 8.2  | 217       |
| 2  | A redox switch in angiotensinogen modulates angiotensin release. <i>Nature</i> , 2010, 468, 108-111.  | 27.8 | 191       |
| 3  | Structural basis of a novel PD-L1 nanobody for immune checkpoint blockade. <i>Cell Discovery</i> , 2017, 3, 17004.  | 6.7  | 147       |
| 4  | The Serpin Inhibitory Mechanism Is Critically Dependent on the Length of the Reactive Center Loop. <i>Journal of Biological Chemistry</i> , 2001, 276, 27541-27547.                           | 3.4  | 121       |
| 5  | SENPI-Sirt3 Signaling Controls Mitochondrial Protein Acetylation and Metabolism. <i>Molecular Cell</i> , 2019, 75, 823-834.e5.  | 9.7  | 119       |
| 6  | The $\alpha$ -Subunit of the V-type H <sup>+</sup> -ATPase Interacts with Phosphofructokinase-1 in Humans. <i>Journal of Biological Chemistry</i> , 2003, 278, 20013-20018.                   | 3.4  | 106       |
| 7  | Structural mechanism for the carriage and release of thyroxine in the blood. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 13321-13326. | 7.1  | 105       |
| 8  | Crystal structures of two human vitronectin, urokinase and urokinase receptor complexes. <i>Nature Structural and Molecular Biology</i> , 2008, 15, 422-423.                                  | 8.2  | 103       |
| 9  | Temperature-Responsive Release of Cortisol from Its Binding Globulin: A Protein Thermocouple. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2010, 95, 4689-4695.                  | 3.6  | 98        |
| 10 | A redox mechanism underlying nucleolar stress sensing by nucleophosmin. <i>Nature Communications</i> , 2016, 7, 13599.  | 12.8 | 94        |
| 11 | Structural basis for enzymatic photocatalysis in chlorophyll biosynthesis. <i>Nature</i> , 2019, 574, 722-725.  | 27.8 | 88        |
| 12 | How Small Peptides Block and Reverse Serpin Polymerisation. <i>Journal of Molecular Biology</i> , 2004, 342, 931-941.   | 4.2  | 82        |
| 13 | Crystal Structures of PI3K $\beta$ Complexed with PI103 and Its Derivatives: New Directions for Inhibitors Design. <i>ACS Medicinal Chemistry Letters</i> , 2014, 5, 138-142.                 | 2.8  | 81        |
| 14 | Formation of the Antithrombin Heterodimer In Vivo and the Onset of Thrombosis. <i>Blood</i> , 1999, 94, 3388-3396.  | 1.4  | 76        |
| 15 | How Changes in Affinity of Corticosteroid-binding Globulin Modulate Free Cortisol Concentration. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2013, 98, 3315-3322.               | 3.6  | 68        |
| 16 | Insights into Hunter syndrome from the structure of iduronate-2-sulfatase. <i>Nature Communications</i> , 2017, 8, 15786.   | 12.8 | 68        |
| 17 | Structural basis of the therapeutic anti-PD-L1 antibody atezolizumab. <i>Oncotarget</i> , 2017, 8, 90215-90224.   | 1.8  | 68        |
| 18 | The S-to-R Transition of Corticosteroid-Binding Globulin and the Mechanism of Hormone Release. <i>Journal of Molecular Biology</i> , 2008, 380, 244-251.                                      | 4.2  | 64        |

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|----|--|------|-----------|
| 19 | Serpins Polymerization Is Prevented by a Hydrogen Bond Network That Is Centered on His-334 and Stabilized by Glycerol. <i>Journal of Biological Chemistry</i> , 2003, 278, 15116-15122.  | 3.4  | 62        |
| 20 | Human H <sup>+</sup> ATPase $\alpha$ 4 subunit mutations causing renal tubular acidosis reveal a role for interaction with phosphofructokinase-1. <i>American Journal of Physiology - Renal Physiology</i> , 2008, 295, F950-F958.                                       | 2.7  | 54        |
| 21 | Polymerization of Plasminogen Activator Inhibitor-1. <i>Journal of Biological Chemistry</i> , 2001, 276, 9115-9122.  | 3.4  | 52        |
| 22 | Allosteric Modulation of Hormone Release from Thyroxine and Corticosteroid-binding Globulins. <i>Journal of Biological Chemistry</i> , 2011, 286, 16163-16173.   | 3.4  | 45        |
| 23 | Crystal structure of protein Z $\alpha$ 1-dependent inhibitor complex shows how protein Z functions as a cofactor in the membrane inhibition of factor X. <i>Blood</i> , 2009, 114, 3662-3667.   | 1.4  | 44        |
| 24 | DUSP6 SUMOylation protects cells from oxidative damage via direct regulation of Drp1 dephosphorylation. <i>Science Advances</i> , 2020, 6, eaaz0361.   | 10.3 | 42        |
| 25 | Structural basis of a novel heterodimeric Fc for bispecific antibody production. <i>Oncotarget</i> , 2017, 8, 51037-51049.   | 1.8  | 41        |
| 26 | Dimers Initiate and Propagate Serine Protease Inhibitor Polymerisation. <i>Journal of Molecular Biology</i> , 2008, 375, 36-42.  | 4.2  | 32        |
| 27 | Molecular Mechanism of Z $\alpha$ 1-Antitrypsin Deficiency. <i>Journal of Biological Chemistry</i> , 2016, 291, 15674-15686.   | 3.4  | 30        |
| 28 | Sequential posttranslational modifications regulate PKC degradation. <i>Molecular Biology of the Cell</i> , 2016, 27, 410-420.   | 2.1  | 30        |
| 29 | Glyceraldehyde 3-phosphate dehydrogenase is required for band 3 (anion exchanger 1) membrane residency in the mammalian kidney. <i>American Journal of Physiology - Renal Physiology</i> , 2011, 300, F157-F166.   | 2.7  | 25        |
| 30 | Temperature-responsive release of thyroxine and its environmental adaptation in Australians. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20132747.   | 2.6  | 24        |
| 31 | Functional structure of the somatomedin B domain of vitronectin. <i>Protein Science</i> , 2007, 16, 1502-1508.   | 7.6  | 22        |
| 32 | A novel $\alpha$ -mosaic-type $\beta$ -nanoparticle for selective drug release targeting hypoxic cancer cells. <i>Nanoscale</i> , 2019, 11, 2211-2222.   | 5.6  | 22        |
| 33 | Serpins show structural basis for oligomer toxicity and amyloid ubiquity. <i>FEBS Letters</i> , 2008, 582, 2537-2541.  | 2.8  | 21        |
| 34 | Structural basis for the specificity of renin-mediated angiotensinogen cleavage. <i>Journal of Biological Chemistry</i> , 2019, 294, 2353-2364.  | 3.4  | 21        |
| 35 | Structure of the cytochrome <i>c</i> <sub>3</sub> -600 heme-copper menaquinol oxidase bound to inhibitor HQNO shows TMO is part of the quinol binding site. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 872-876. | 7.1  | 21        |
| 36 | Structural basis for catalytic activation of protein Z $\alpha$ 1-dependent protease inhibitor (ZPI) by protein Z. <i>Blood</i> , 2012, 120, 1726-1733.  | 1.4  | 19        |

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|----|---|------|-----------|
| 37 | Identification of a natural inhibitor of methionine adenosyltransferase 2A regulating one-carbon metabolism in keratinocytes. <i>EBioMedicine</i> , 2019, 39, 575-590.  | 6.1  | 19        |
| 38 | Modulation of Serpin Reaction through Stabilization of Transient Intermediate by Ligands Bound to $\alpha_1$ -Helix F. <i>Journal of Biological Chemistry</i> , 2007, 282, 26306-26315.   | 3.4  | 16        |
| 39 | Structural basis of von Willebrand factor multimerization and tubular storage. <i>Blood</i> , 2022, 139, 3314-3324.   | 1.4  | 15        |
| 40 | Transcriptional Approach for Decoding the Mechanism of rpoC Compensatory Mutations for the Fitness Cost in Rifampicin-Resistant <i>Mycobacterium tuberculosis</i> . <i>Frontiers in Microbiology</i> , 2018, 9, 2895.           | 3.5  | 14        |
| 41 | Redirection of the reaction between activated protein C and a serpin to the substrate pathway. <i>Thrombosis Research</i> , 2008, 122, 397-404.   | 1.7  | 13        |
| 42 | Towards Engineering Hormone-Binding Globulins as Drug Delivery Agents. <i>PLoS ONE</i> , 2014, 9, e113402.  | 2.5  | 13        |
| 43 | Probing nanosecond motions of plasminogen activator inhibitor-1 by time-resolved fluorescence anisotropy. <i>Molecular BioSystems</i> , 2009, 5, 1025.  | 2.9  | 12        |
| 44 | Physical and Functional Links between Anion Exchanger-1 and Sodium Pump. <i>Journal of the American Society of Nephrology: JASN</i> , 2015, 26, 400-409.  | 6.1  | 11        |
| 45 | Angiotensinogen and the Modulation of Blood Pressure. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 645123.  | 2.4  | 11        |
| 46 | Heparin Binds Lamprey Angiotensinogen and Promotes Thrombin Inhibition through a Template Mechanism. <i>Journal of Biological Chemistry</i> , 2016, 291, 24900-24911.   | 3.4  | 9         |
| 47 | Characterization of PPIB interaction in the P3H1 ternary complex and implications for its pathological mutations. <i>Cellular and Molecular Life Sciences</i> , 2019, 76, 3899-3914.  | 5.4  | 9         |
| 48 | SUMOylation modulates the LIN28A $\alpha$ signaling pathway in response to cellular stresses in cancer cells. <i>Molecular Oncology</i> , 2020, 14, 2288-2312.  | 4.6  | 9         |
| 49 | Identification of HSP47 Binding Site on Native Collagen and Its Implications for the Development of HSP47 Inhibitors. <i>Biomolecules</i> , 2021, 11, 983.  | 4.0  | 9         |
| 50 | Thermodynamic and Kinetic Characterization of the Protein Z-dependent Protease Inhibitor (ZPI)-Protein Z Interaction Reveals an Unexpected Role for ZPI Lys-239. <i>Journal of Biological Chemistry</i> , 2015, 290, 9906-9918. | 3.4  | 8         |
| 51 | 14-3-3 $\beta$ Promotes Surface Expression of Cav2.2 ( $\alpha_1B$ ) Ca <sup>2+</sup> Channels. <i>Journal of Biological Chemistry</i> , 2015, 290, 2689-2698.  | 3.4  | 8         |
| 52 | Identification of clinical molecular targets for childhood Burkitt lymphoma. <i>Translational Oncology</i> , 2020, 13, 100855.  | 3.7  | 8         |
| 53 | Serpins as Hormone Carriers. <i>Methods in Enzymology</i> , 2011, 501, 89-103.  | 1.0  | 7         |
| 54 | Kynurenine derivative 3-HAA is an agonist ligand for transcription factor YY1. <i>Journal of Hematology and Oncology</i> , 2021, 14, 153.   | 17.0 | 7         |

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|----|--|-----|-----------|
| 55 | Structure of CTLA-4 complexed with a pH-sensitive cancer immunotherapeutic antibody. <i>Cell Discovery</i> , 2020, 6, 79.  | 6.7 | 6         |
| 56 | Solving Serpin Crystal Structures. <i>Methods in Enzymology</i> , 2011, 501, 49-61.  | 1.0 | 5         |
| 57 | Structural mechanism of VWF D $\epsilon$ ™D3 dimer formation. <i>Cell Discovery</i> , 2022, 8, 14.   | 6.7 | 5         |
| 58 | TRPV1 SUMOylation suppresses itch by inhibiting TRPV1 interaction with H1 receptors. <i>Cell Reports</i> , 2022, 39, 110972.   | 6.4 | 5         |
| 59 | Heparin Blocks the Inhibition of Tissue Kallikrein 1 by Kallistatin through Electrostatic Repulsion. <i>Biomolecules</i> , 2020, 10, 828.                                    | 4.0 | 4         |
| 60 | Purification, crystallization, and X-ray diffraction analysis of myocyte enhancer factor 2D and DNA complex. <i>Protein Expression and Purification</i> , 2021, 179, 105788. | 1.3 | 3         |
| 61 | Crystallization and crystallographic studies of kallistatin. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2015, 71, 1135-1138.               | 0.8 | 2         |
| 62 | High-level expression of active human plasminogen activator inhibitor type 1 (PAI-1) in <i>E. coli</i> . <i>IUBMB Life</i> , 1996, 39, 235-242.                              | 3.4 | 1         |
| 63 | Targeting a Surface Cavity of $\alpha$ 1-Antitrypsin to Prevent Conformational Disease. <i>Clinical Science</i> , 2003, 104, 57P-57P.  | 0.0 | 0         |
| 64 | Probing Conformational Motion of Serpin by Time-Resolved and Single Molecule Fluorescence. <i>Biophysical Journal</i> , 2009, 96, 377a.                                      | 0.5 | 0         |
| 65 | Angiotensinogen adjusts its shape to complex with renin and modulate blood pressure. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, s30-s30.  | 0.3 | 0         |