

Roy E Weber

List of Publications by Year in descending order

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Version: 2024-02-01

25
papers

1,760
citations

331538

21
h-index

580701

25
g-index

25
all docs

25
docs citations

25
times ranked

1519
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Predictable convergence in hemoglobin function has unpredictable molecular underpinnings. <i>Science</i> , 2016, 354, 336-339. | 6.0 | 206 |
| 2 | Epistasis Among Adaptive Mutations in Deer Mouse Hemoglobin. <i>Science</i> , 2013, 340, 1324-1327. | 6.0 | 174 |
| 3 | Repeated elevational transitions in hemoglobin function during the evolution of Andean hummingbirds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 20669-20674. | 3.3 | 149 |
| 4 | High-altitude adaptations in vertebrate hemoglobins. <i>Respiratory Physiology and Neurobiology</i> , 2007, 158, 132-142. | 0.7 | 136 |
| 5 | Cationic control of O ₂ affinity in lugworm erythrocrucorin. <i>Nature</i> , 1981, 292, 386-387. | 13.7 | 121 |
| 6 | Functional adaptation and its molecular basis in vertebrate hemoglobins, neuroglobins and cytoglobins. <i>Respiratory Physiology and Neurobiology</i> , 2004, 144, 141-159. | 0.7 | 117 |
| 7 | Convergent Evolution of Hemoglobin Function in High-Altitude Andean Waterfowl Involves Limited Parallelism at the Molecular Sequence Level. <i>PLoS Genetics</i> , 2015, 11, e1005681. | 1.5 | 103 |
| 8 | Epistasis Constrains Mutational Pathways of Hemoglobin Adaptation in High-Altitude Pikas. <i>Molecular Biology and Evolution</i> , 2015, 32, 287-298. | 3.5 | 95 |
| 9 | Intraspecific Polymorphism, Interspecific Divergence, and the Origins of Function-Altering Mutations in Deer Mouse Hemoglobin. <i>Molecular Biology and Evolution</i> , 2015, 32, 978-997. | 3.5 | 88 |
| 10 | Contribution of a mutational hot spot to hemoglobin adaptation in high-altitude Andean house wrens. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 13958-13963. | 3.3 | 86 |
| 11 | Molecular basis of hemoglobin adaptation in the high-flying bar-headed goose. <i>PLoS Genetics</i> , 2018, 14, e1007331. | 1.5 | 58 |
| 12 | Gene Duplication and the Evolution of Hemoglobin Isoform Differentiation in Birds. <i>Journal of Biological Chemistry</i> , 2012, 287, 37647-37658. | 1.6 | 54 |
| 13 | The Cathodic Hemoglobin of <i>Anguilla anguilla</i> . <i>Journal of Biological Chemistry</i> , 1995, 270, 18897-18902. | 1.6 | 53 |
| 14 | Stability-Mediated Epistasis Restricts Accessible Mutational Pathways in the Functional Evolution of Avian Hemoglobin. <i>Molecular Biology and Evolution</i> , 2017, 34, 1240-1251. | 3.5 | 49 |
| 15 | The Anodic Hemoglobin of <i>Anguilla anguilla</i> . <i>Journal of Biological Chemistry</i> , 1997, 272, 15628-15635. | 1.6 | 46 |
| 16 | Hemoglobin function and allosteric regulation in semi-fossorial rodents (family Sciuridae) with different altitudinal ranges. <i>Journal of Experimental Biology</i> , 2013, 216, 4264-4271. | 0.8 | 40 |
| 17 | Genetically based low oxygen affinities of felid hemoglobins: lack of biochemical adaptation to high-altitude hypoxia in the snow leopard. <i>Journal of Experimental Biology</i> , 2015, 218, 2402-2409. | 0.8 | 40 |
| 18 | Lack of conventional oxygen-linked proton and anion binding sites does not impair allosteric regulation of oxygen binding in dwarf caiman hemoglobin. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2013, 305, R300-R312. | 0.9 | 33 |

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|----|--|-----|-----------|
| 19 | Oxygenation properties and isoform diversity of snake hemoglobins. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2015, 309, R1178-R1191. | 0.9 | 29 |
| 20 | Allosteric mechanisms underlying the adaptive increase in hemoglobin-oxygen affinity of the bar-headed goose. <i>Journal of Experimental Biology</i> , 2018, 221, . | 0.8 | 29 |
| 21 | The hemoglobin system of the hagfish <i>Myxine glutinosa</i> : aggregation state and functional properties. <i>BBA - Proteins and Proteomics</i> , 1995, 1249, 109-115. | 2.1 | 27 |
| 22 | Structure and function of crocodilian hemoglobins and allosteric regulation by chloride, ATP, and CO ₂ . <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2020, 318, R657-R667. | 0.9 | 12 |
| 23 | Evolutionary History of the Globin Gene Family in Annelids. <i>Genome Biology and Evolution</i> , 2020, 12, 1719-1733. | 1.1 | 8 |
| 24 | Effect of NH ₂ -terminal acetylation on the oxygenation properties of vertebrate haemoglobin. <i>Biochemical Journal</i> , 2020, 477, 3839-3850. | 1.7 | 6 |
| 25 | Ontogeny of hemoglobin's oxygen binding and multiplicity in the obligate air-breathing fish <i>Arapaima gigas</i> . <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2022, 268, 111190. | 0.8 | 1 |