Shohei Koide

List of Publications by Citations

100 papers	4,634 citations	36 h-index	67 g-index
107 ext. papers	5,616 ext. citations	11.4 avg, IF	5.56 L-index

#	Paper	IF	Citations
100	The fibronectin type III domain as a scaffold for novel binding proteins. *Journal of Molecular Biology* , **1998**, 284, 1141-51	6.5	392
99	Visualization of arrestin recruitment by a G-protein-coupled receptor. *Nature*, **2014**, 512, 218-222	50.4	349
98	High-throughput generation of synthetic antibodies from highly functional minimalist phage-displayed libraries. *Journal of Molecular Biology*, **2007**, 373, 924-40	6.5	262
97	Inhibition of RAS function through targeting an allosteric regulatory site. *Nature Chemical Biology*, **2017**, 13, 62-68	11.7	177
96	Helix, sheet, and polyproline II frequencies and strong nearest neighbor effects in a restricted coil library. *Biochemistry*, **2005**, 44, 9691-702	3.2	150
95	High-affinity single-domain binding proteins with a binary-code interface. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 6632-7	11.5	143
94	Teaching an old scaffold new tricks: monobodies constructed using alternative surfaces of the FN3 scaffold. *Journal of Molecular Biology*, **2012**, 415, 393-405	6.5	135
93	The importance of being tyrosine: lessons in molecular recognition from minimalist synthetic binding proteins. *ACS Chemical Biology*, **2009**, 4, 325-34	4.9	132
92	A potent and highly specific FN3 monobody inhibitor of the Abl SH2 domain. *Nature Structural and Molecular Biology*, **2010**, 17, 519-27	17.6	120
91	Phage display for engineering and analyzing protein interaction interfaces. *Current Opinion in Structural Biology*, **2007**, 17, 481-7	8.1	117
90	Engineering of recombinant crystallization chaperones. *Current Opinion in Structural Biology*, **2009**, 19, 449-57	8.1	115
89	Probing protein conformational changes in living cells by using designer binding proteins: application to the estrogen receptor. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 1253-8	11.5	113
88	Structures of a Na+-coupled, substrate-bound MATE multidrug transporter. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 2099-104	11.5	111
87	Targeting the SH2-kinase interface in Bcr-Abl inhibits leukemogenesis. *Cell*, **2011**, 147, 306-19	56.2	102
86	Assessment of a method to characterize antibody selectivity and specificity for use in immunoprecipitation. *Nature Methods*, **2015**, 12, 725-31	21.6	86
85	Monobodies and other synthetic binding proteins for expanding protein science. *Protein Science*, **2017**, 26, 910-924	6.3	85
84	Architecture of the fungal nuclear pore inner ring complex. *Science*, **2015**, 350, 56-64	33.3	80

83	Design of protein function leaps by directed domain interface evolution. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 6578-83	11.5	77
82	A High Through-put Platform for Recombinant Antibodies to Folded Proteins. *Molecular and Cellular Proteomics*, **2015**, 14, 2833-47	7.6	75
81	Crystal structures of a double-barrelled fluoride ion channel. *Nature*, **2015**, 525, 548-51	50.4	75
80	Structural insights for engineering binding proteins based on non-antibody scaffolds. *Current Opinion in Structural Biology*, **2012**, 22, 413-20	8.1	69
79	A dominant conformational role for amino acid diversity in minimalist protein-protein interfaces. *Journal of Molecular Biology*, **2008**, 381, 407-18	6.5	65
78	Target-binding proteins based on the 10th human fibronectin type III domain (□n3). *Methods in Enzymology*, **2012**, 503, 135-56	1.7	63
77	Monobodies: antibody mimics based on the scaffold of the fibronectin type III domain. *Methods in Molecular Biology*, **2007**, 352, 95-109	1.4	63
76	Dissection of the BCR-ABL signaling network using highly specific monobody inhibitors to the SHP2 SH2 domains. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 14924-9	11.5	62
75	Generating conformation-specific synthetic antibodies to trap proteins in selected functional states. *Methods*, **2013**, 60, 3-14	4.6	61
74	Broad ranges of affinity and specificity of anti-histone antibodies revealed by a quantitative peptide immunoprecipitation assay. *Journal of Molecular Biology*, **2012**, 424, 391-9	6.5	57
73	A portable RNA sequence whose recognition by a synthetic antibody facilitates structural determination. *Nature Structural and Molecular Biology*, **2011**, 18, 100-6	17.6	56
72	Structural Basis for Regulation of GPR56/ADGRG1 by Its Alternatively Spliced Extracellular Domains. *Neuron*, **2016**, 91, 1292-1304	13.9	54
71	T cell receptor-like recognition of tumor in vivo by synthetic antibody fragment. *PLoS ONE*, **2012**, 7, e43746	3.7	53
70	SHP2 inhibition diminishes KRASG12C cycling and promotes tumor microenvironment remodeling. *Journal of Experimental Medicine*, **2021**, 218,	16.6	53
69	Recombinant antibodies to histone post-translational modifications. *Nature Methods*, **2013**, 10, 992-5	21.6	51
68	Isoform-specific monobody inhibitors of small ubiquitin-related modifiers engineered using structure-guided library design. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 7751-6	11.5	42
67	Structural basis for exquisite specificity of affinity clamps, synthetic binding proteins generated through directed domain-interface evolution. *Journal of Molecular Biology*, **2009**, 392, 1221-31	6.5	40
66	ETO family protein Mtgr1 mediates Prdm14 functions in stem cell maintenance and primordial germ cell formation. *ELife*, **2015**, 4, e10150	8.9	40

65	-independent modulation of GPR56/ADGRG1 signaling by synthetic ligands directed to its extracellular region. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 10095-10100	11.5	39
64	Proof of dual-topology architecture of Fluc F- channels with monobody blockers. *Nature Communications*, **2014**, 5, 5120	17.4	35
63	Two Distinct Structures of Membrane-Associated Homodimers of GTP- and GDP-Bound KRAS4B Revealed by Paramagnetic Relaxation Enhancement. *Angewandte Chemie - International Edition*, **2020**, 59, 11037-11045	16.4	34
62	Identification of MLKL membrane translocation as a checkpoint in necroptotic cell death using Monobodies. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 8468-8475	11.5	34
61	NMR identification of epitopes of Lyme disease antigen OspA to monoclonal antibodies. *Journal of Molecular Biology*, **1998**, 281, 61-7	6.5	32
60	Antigen clasping by two antigen-binding sites of an exceptionally specific antibody for histone methylation. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 2092-7	11.5	30
59	Generation of new protein functions by nonhomologous combinations and rearrangements of domains and modules. *Current Opinion in Biotechnology*, **2009**, 20, 398-404	11.4	30
58	Directed network wiring identifies a key protein interaction in embryonic stem cell differentiation. *Molecular Cell*, **2014**, 54, 1034-41	17.6	29
57	Identification of a tetratricopeptide repeat-like domain in the nicastrin subunit of -secretase using synthetic antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 8534-9	11.5	29
56	Epigenetic dysregulation by nickel through repressive chromatin domain disruption. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 14631-6	11.5	28
55	A synthetic intrabody-based selective and generic inhibitor of GPCR endocytosis. *Nature Nanotechnology*, **2017**, 12, 1190-1198	28.7	27
54	Ensemble cryoEM elucidates the mechanism of insulin capture and degradation by human insulin degrading enzyme. *ELife*, **2018**, 7,	8.9	27
53	Atomic structure of the eukaryotic intramembrane RAS methyltransferase ICMT. *Nature*, **2018**, 553, 526-529	50.4	25
52	Microbial signatures in the lower airways of mechanically ventilated COVID-19 patients associated with poor clinical outcome. *Nature Microbiology*, **2021**, 6, 1245-1258	26.6	24
51	Allosteric Inhibition of Bcr-Abl Kinase by High Affinity Monobody Inhibitors Directed to the Src Homology 2 (SH2)-Kinase Interface. *Journal of Biological Chemistry*, **2016**, 291, 8836-47	5.4	23
50	Allosteric modulation of a human protein kinase with monobodies. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 13937-13942	11.5	22
49	Antibody isotype diversity against SARS-CoV-2 is associated with differential serum neutralization capacities. *Scientific Reports*, **2021**, 11, 5538	4.9	22
48	Targeting the -5 interface of RAS results in multiple levels of inhibition. *Small GTPases*, **2019**, 10, 378-387	2.7	22

47	Monobody-mediated alteration of enzyme specificity. *Nature Chemical Biology*, **2015**, 11, 762-4	11.7	21
46	Next-generation antibodies for post-translational modifications. *Current Opinion in Structural Biology*, **2018**, 51, 141-148	8.1	21
45	Structural and functional dissection of the DH and PH domains of oncogenic Bcr-Abl tyrosine kinase. *Nature Communications*, **2017**, 8, 2101	17.4	21
44	Optimizing Production of Antigens and Fabs in the Context of Generating Recombinant Antibodies to Human Proteins. *PLoS ONE*, **2015**, 10, e0139695	3.7	20
43	Conformational interconversion of MLKL and disengagement from RIPK3 precede cell death by necroptosis. *Nature Communications*, **2021**, 12, 2211	17.4	19
42	Selective Targeting of SH2 Domain-Phosphotyrosine Interactions of Src Family Tyrosine Kinases with Monobodies. *Journal of Molecular Biology*, **2017**, 429, 1364-1380	6.5	18
41	Structural basis for the reaction cycle of DASS dicarboxylate transporters. *ELife*, **2020**, 9,	8.9	18
40	Broad-Spectrum Proteome Editing with an Engineered Bacterial Ubiquitin Ligase Mimic. *ACS Central Science*, **2019**, 5, 852-866	16.8	17
39	Accelerating phage-display library selection by reversible and site-specific biotinylation. *Protein Engineering, Design and Selection*, **2009**, 22, 685-90	1.9	17
38	Facile target validation in an animal model with intracellularly expressed monobodies. *Nature Chemical Biology*, **2018**, 14, 895-900	11.7	16
37	Scalable high throughput selection from phage-displayed synthetic antibody libraries. *Journal of Visualized Experiments*, **2015**, 51492	1.6	16
36	Selective inhibition of STAT3 signaling using monobodies targeting the coiled-coil and N-terminal domains. *Nature Communications*, **2020**, 11, 4115	17.4	16
35	Selective and noncovalent targeting of RAS mutants for inhibition and degradation. *Nature Communications*, **2021**, 12, 2656	17.4	16
34	A CLC-type F/H antiporter in ion-swapped conformations. *Nature Structural and Molecular Biology*, **2018**, 25, 601-606	17.6	16
33	Monobodies as enabling tools for structural and mechanistic biology. *Current Opinion in Structural Biology*, **2020**, 60, 167-174	8.1	15
32	sNASP and ASF1A function through both competitive and compatible modes of histone binding. *Nucleic Acids Research*, **2017**, 45, 643-656	20.1	14
31	BRAF inhibitors promote intermediate BRAF(V600E) conformations and binary interactions with activated RAS. *Science Advances*, **2019**, 5, eaav8463	14.3	13
30	The structural basis of promiscuity in small multidrug resistance transporters. *Nature Communications*, **2020**, 11, 6064	17.4	11

29	Impaired Humoral Immunity to SARS-CoV-2 Vaccination in Non-Hodgkin Lymphoma and CLL Patients **2021**,		9
28	Specific Recognition of a Single-Stranded RNA Sequence by a Synthetic Antibody Fragment. *Journal of Molecular Biology*, **2016**, 428, 4100-4114	6.5	8
27	Generation of high-performance binding proteins for peptide motifs by affinity clamping. *Methods in Enzymology*, **2013**, 523, 285-302	1.7	7
26	Discrete immune response signature to SARS-CoV-2 mRNA vaccination versus infection **2021**,		6
25	A synthetic antibody fragment targeting nicastrin affects assembly and trafficking of γ-secretase. *Journal of Biological Chemistry*, **2014**, 289, 34851-61	5.4	5
24	High titers of multiple antibody isotypes against the SARS-CoV-2 spike receptor-binding domain and nucleoprotein associate with better neutralization		5
23	Specific and direct modulation of the interaction between adhesion GPCR GPR56/ADGRG1 and tissue transglutaminase 2 using synthetic ligands. *Scientific Reports*, **2020**, 10, 16912	4.9	5
22	Targeting the KRAS α4-α5 allosteric interface inhibits pancreatic cancer tumorigenesis. *Small GTPases*, **2021**, 1-14	2.7	5
21	Mechanism of disease and therapeutic rescue of Dok7 congenital myasthenia. *Nature*, **2021**, 595, 404-408	50.4	5
20	The ACE2-binding Interface of SARS-CoV-2 Spike Inherently Deflects Immune Recognition. *Journal of Molecular Biology*, **2021**, 433, 166748	6.5	5
19	Targeted rescue of cancer-associated IDH1 mutant activity using an engineered synthetic antibody. *Scientific Reports*, **2017**, 7, 556	4.9	4
18	Multiplex bead binding assays using off-the-shelf components and common flow cytometers. *Journal of Immunological Methods*, **2021**, 490, 112952	2.5	4
17	Two Distinct Structures of Membrane-Associated Homodimers of GTP- and GDP-Bound KRAS4B Revealed by Paramagnetic Relaxation Enhancement. *Angewandte Chemie*, **2020**, 132, 11130-11138	3.6	3
16	An Overlapping Region between the Two Terminal Folding Units of the Outer Surface Protein A (OspA) Controls Its Folding Behavior. *Journal of Molecular Biology*, **2018**, 430, 1799-1813	6.5	3
15	Repurposing off-the-shelf antihelix antibodies for enabling structural biology. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 17611-17613	11.5	3
14	Monobody-Mediated Alteration of Lipase Substrate Specificity. *ACS Chemical Biology*, **2018**, 13, 1487-1492	4.9	3
13	Identification of the nucleotide-free state as a therapeutic vulnerability for inhibition of selected oncogenic RAS mutants.. *Cell Reports*, **2022**, 38, 110322	10.6	2
12	Zinc Dependent Conformational Changes in the Cation Diffusion Facilitator YiiP from S. oneidensis		2

List of Publications

11	Zinc binding alters the conformational dynamics and drives the transport cycle of the cation diffusion facilitator YiiP. *Journal of General Physiology*, **2021**, 153,	3.4	2
10	Monobodies as tool biologics for accelerating target validation and druggable site discovery. *RSC Medicinal Chemistry*, **2021**, 12, 1839-1853	3.5	2
9	The ACE2-binding interface of SARS-CoV-2 Spike inherently deflects immune recognition **2020**,		1
8	Crystal structures of bacterial small multidrug resistance transporter EmrE in complex with structurally diverse substrates.. *ELife*, **2022**, 11,	8.9	1
7	High-valency Anti-CD99 Antibodies Toward the Treatment of T Cell Acute Lymphoblastic Leukemia.. *Journal of Molecular Biology*, **2021**, 434, 167402	6.5	0
6	Engineering Binders with Exceptional Selectivity.. *Methods in Molecular Biology*, **2022**, 2491, 143-154	1.4	0
5	Aromatic claw: A new fold with high aromatic content that evades structural prediction. *Protein Science*, **2017**, 26, 208-217	6.3	
4	STEM-09. DEFINING THE ROLE OF CD97 IN GLIOBLASTOMA STEM CELL SELF-RENEWAL. *Neuro-Oncology*, **2021**, 23, vi22-vi23	1	
3	Validation of Recombinant Antibodies Against Human Transcription Factors. *FASEB Journal*, **2015**, 29, 571.13	0.9	
2	Comprehensive Analysis of the Structural, Biochemical and Signaling Differences of the p210 and p185 Isoforms of Bcr-Abl in CML and B-ALL. *Blood*, **2016**, 128, 4238-4238	2.2	
1	Raf kinase inhibitory protein protects cells against locostatin-mediated inhibition of migration. *FASEB Journal*, **2009**, 23, 687.4	0.9	