Frank Sicheri

List of Publications by Citations

62 papers	4,081 citations	30 h-index	63 g-index
66 ext. papers	4,971 ext. citations	15.2 avg, IF	4.98 L-index

#	Paper	IF	Citations
62	Multisite phosphorylation of a CDK inhibitor sets a threshold for the onset of DNA replication. *Nature*, **2001**, 414, 514-21	50.4	639
61	Persistence of serum and saliva antibody responses to SARS-CoV-2 spike antigens in COVID-19 patients. *Science Immunology*, **2020**, 5,	28	396
60	A dimerization-dependent mechanism drives RAF catalytic activation. *Nature*, **2009**, 461, 542-5	50.4	345
59	Higher-order substrate recognition of eIF2alpha by the RNA-dependent protein kinase PKR. *Cell*, **2005**, 122, 887-900	56.2	291
58	A strategy for modulation of enzymes in the ubiquitin system. *Science*, **2013**, 339, 590-5	33.3	199
57	The crystal structure of an Eph receptor SAM domain reveals a mechanism for modular dimerization. *Nature Structural Biology*, **1999**, 6, 44-9		199
56	Inhibition of RAS function through targeting an allosteric regulatory site. *Nature Chemical Biology*, **2017**, 13, 62-68	11.7	177
55	An allosteric inhibitor of the human Cdc34 ubiquitin-conjugating enzyme. *Cell*, **2011**, 145, 1075-87	56.2	172
54	Inhibitors that stabilize a closed RAF kinase domain conformation induce dimerization. *Nature Chemical Biology*, **2013**, 9, 428-36	11.7	120
53	An allosteric inhibitor of substrate recognition by the SCF(Cdc4) ubiquitin ligase. *Nature Biotechnology*, **2010**, 28, 733-7	44.5	118
52	Metformin reduces liver glucose production by inhibition of fructose-1-6-bisphosphatase. *Nature Medicine*, **2018**, 24, 1395-1406	50.5	113
51	Structural and biochemical characterization of the type III secretion chaperones CesT and SigE. *Nature Structural Biology*, **2001**, 8, 1031-6		112
50	Crystal structure of a BRAF kinase domain monomer explains basis for allosteric regulation. *Nature Structural and Molecular Biology*, **2015**, 22, 37-43	17.6	94
49	Dimeric structure of pseudokinase RNase L bound to 2-5A reveals a basis for interferon-induced antiviral activity. *Molecular Cell*, **2014**, 53, 221-34	17.6	90
48	Structure and mechanism of action of the hydroxy-aryl-aldehyde class of IRE1 endoribonuclease inhibitors. *Nature Communications*, **2014**, 5, 4202	17.4	78
47	Atomic structure of the KEOPS complex: an ancient protein kinase-containing molecular machine. *Molecular Cell*, **2008**, 32, 259-75	17.6	72
46	Dimerization-induced allostery in protein kinase regulation. *Trends in Biochemical Sciences*, **2014**, 39, 475-86	10.3	65

45	MEK drives BRAF activation through allosteric control of KSR proteins. *Nature*, **2018**, 554, 549-553	50.4	64
44	E2 enzyme inhibition by stabilization of a low-affinity interface with ubiquitin. *Nature Chemical Biology*, **2014**, 10, 156-163	11.7	58
43	Reconstitution and characterization of eukaryotic N6-threonylcarbamoylation of tRNA using a minimal enzyme system. *Nucleic Acids Research*, **2013**, 41, 6332-46	20.1	50
42	Inhibition of SCF ubiquitin ligases by engineered ubiquitin variants that target the Cul1 binding site on the Skp1-F-box interface. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3527-32	11.5	47
41	A feed forward loop enforces YAP/TAZ signaling during tumorigenesis. *Nature Communications*, **2018**, 9, 3510	17.4	37
40	Functional characterization of a PROTAC directed against BRAF mutant V600E. *Nature Chemical Biology*, **2020**, 16, 1170-1178	11.7	34
39	Structural basis for the recruitment of glycogen synthase by glycogenin. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E2831-40	11.5	33
38	Structural basis for specificity of TGF family receptor small molecule inhibitors. *Cellular Signalling*, **2012**, 24, 476-483	4.9	33
37	Conserved structural mechanisms for autoinhibition in IpaH ubiquitin ligases. *Journal of Biological Chemistry*, **2012**, 287, 268-275	5.4	33
36	Structural and Functional Characterization of Ubiquitin Variant Inhibitors of USP15. *Structure*, **2019**, 27, 590-605.e5	5.2	32
35	OAS-RNase L innate immune pathway mediates the cytotoxicity of a DNA-demethylating drug. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 5071-5076	11.5	32
34	Higher-Order Assembly of BRCC36-KIAA0157 Is Required for DUB Activity and Biological Function. *Molecular Cell*, **2015**, 59, 970-83	17.6	31
33	Proteomic analysis of the human KEOPS complex identifies C14ORF142 as a core subunit homologous to yeast Gon7. *Nucleic Acids Research*, **2017**, 45, 805-817	20.1	31
32	Mucosal versus systemic antibody responses to SARS-CoV-2 antigens in COVID-19 patients		30
31	An allosteric conduit facilitates dynamic multisite substrate recognition by the SCF ubiquitin ligase. *Nature Communications*, **2017**, 8, 13943	17.4	28
30	Robust cullin-RING ligase function is established by a multiplicity of poly-ubiquitylation pathways. *ELife*, **2019**, 8,	8.9	20
29	Structural and functional characterization of a ubiquitin variant engineered for tight and specific binding to an alpha-helical ubiquitin interacting motif. *Protein Science*, **2017**, 26, 1060-1069	6.3	17
28	Structural and functional characterization of KEOPS dimerization by Pcc1 and its role in t6A biosynthesis. *Nucleic Acids Research*, **2016**, 44, 6971-80	20.1	17

27	Getting a handle on glycogen synthase - Its interaction with glycogenin. *Molecular Aspects of Medicine*, **2015**, 46, 63-9	16.7	15
26	A Structure-Based Strategy for Engineering Selective Ubiquitin Variant Inhibitors of Skp1-Cul1-F-Box Ubiquitin Ligases. *Structure*, **2018**, 26, 1226-1236.e3	5.2	15
25	Mechanism of catalysis, E2 recognition, and autoinhibition for the IpaH family of bacterial E3 ubiquitin ligases. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 1311-1316	11.5	14
24	Structural and Functional Analysis of Ubiquitin-based Inhibitors That Target the Backsides of E2 Enzymes. *Journal of Molecular Biology*, **2020**, 432, 952-966	6.5	12
23	Structural Basis for Auto-Inhibition of the NDR1 Kinase Domain by an Atypically Long Activation Segment. *Structure*, **2018**, 26, 1101-1115.e6	5.2	12
22	Baculovirus protein PK2 subverts eIF2kinase function by mimicry of its kinase domain C-lobe. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E4364-73	11.5	11
21	Structural basis of Rad53 kinase activation by dimerization and activation segment exchange. *Cellular Signalling*, **2014**, 26, 1825-36	4.9	10
20	Effects of rigidity on the selectivity of protein kinase inhibitors. *European Journal of Medicinal Chemistry*, **2018**, 146, 519-528	6.8	8
19	Bora phosphorylation substitutes in trans for T-loop phosphorylation in Aurora A to promote mitotic entry. *Nature Communications*, **2021**, 12, 1899	17.4	8
18	Rigidification Dramatically Improves Inhibitor Selectivity for RAF Kinases. *ACS Medicinal Chemistry Letters*, **2019**, 10, 1074-1080	4.3	7
17	The ubiquitin interacting motifs of USP37 act on the proximal Ub of a di-Ub chain to enhance catalytic efficiency. *Scientific Reports*, **2019**, 9, 4119	4.9	7
16	Dimerization of a ubiquitin variant leads to high affinity interactions with a ubiquitin interacting motif. *Protein Science*, **2019**, 28, 848-856	6.3	7
15	A substrate binding model for the KEOPS tRNA modifying complex. *Nature Communications*, **2020**, 11, 6233	17.4	6
14	Putting the brakes on the unfolded protein response. *Journal of Cell Biology*, **2011**, 193, 17-9	7.3	6
13	Comprehensive analysis of all evolutionary paths between two divergent PDZ domain specificities. *Protein Science*, **2020**, 29, 433-442	6.3	6
12	FAM105A/OTULINL Is a Pseudodeubiquitinase of the OTU-Class that Localizes to the ER Membrane. *Structure*, **2019**, 27, 1000-1012.e6	5.2	5
11	Expression and purification of functional human glycogen synthase-1:glycogenin-1 complex in insect cells. *Protein Expression and Purification*, **2015**, 108, 23-29	2	5
10	The structural and functional workings of KEOPS. *Nucleic Acids Research*, **2021**, 49, 10818-10834	20.1	4

List of Publications

9	Identification and optimization of molecular glue compounds that inhibit a noncovalent E2 enzyme-ubiquitin complex. *Science Advances*, **2021**, 7, eabi5797	14.3	4
8	Aurora A kinase activation: Different means to different ends. *Journal of Cell Biology*, **2021**, 220,	7.3	4
7	A phenolic small molecule inhibitor of RNase L prevents cell death from ADAR1 deficiency. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 24802-24812	11.5	3
6	Yeast Two-Hybrid Analysis for Ubiquitin Variant Inhibitors of Human Deubiquitinases. *Journal of Molecular Biology*, **2019**, 431, 1160-1171	6.5	2
5	The Eukaryotic Protein Kinase Domain **2005**, 181-209		2
4	Panel of Engineered Ubiquitin Variants Targeting the Family of Human Ubiquitin Interacting Motifs.. *ACS Chemical Biology*, **2022**,	4.9	1
3	Bipartite binding of the N terminus of Skp2 to cyclin A. *Structure*, **2021**, 29, 975-988.e5	5.2	0
2	Comprehensive Assessment of the Relationship Between Site Specificity and Helix α2 in the Erbin PDZ Domain. *Journal of Molecular Biology*, **2021**, 433, 167115	6.5	
1	A suite of in vitro and in vivo assays for monitoring the activity of the pseudokinase Bud32.. *Methods in Enzymology*, **2022**, 667, 729-773	1.7	