Francesco Antonio Aprile

List of Publications by Year
in descending order

51 papers	3,556 citations	257357 24 h-index	197736 49 g-index
58 all docs	58 docs citations	58 times ranked	4684 citing authors

#	Article	IF	Citations
1	Direct Observation of the Interconversion of Normal and Toxic Forms of Î±-Synuclein. Cell, 2012, 149, 1048-1059.	13.5	755
2	Structural characterization of toxic oligomers that are kinetically trapped during Î±-synuclein fibril formation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1994-2003.	3.3	384
3	The CamSol Method of Rational Design of Protein Mutants with Enhanced Solubility. Journal of Molecular Biology, 2015, 427, 478-490.	2.0	341
4	A natural product inhibits the initiation of Î±-synuclein aggregation and suppresses its toxicity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1009-E1017.	3.3	231
5	Different soluble aggregates of AÎ²42 can give rise to cellular toxicity through different mechanisms. Nature Communications, 2019, 10, 1541.	5.8	140
6	Selective targeting of primary and secondary nucleation pathways in AÎ²42 aggregation using a rational antibody scanning method. Science Advances, 2017, 3, e1700488.	4.7	116
7	Rational design of antibodies targeting specific epitopes within intrinsically disordered proteins. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9902-9907.	3.3	113
8	Microfluidic Diffusion Analysis of the Sizes and Interactions of Proteins under Native Solution Conditions. ACS Nano, 2016, 10, 333-341.	7.3	105
9	Targeting Amyloid Aggregation: An Overview of Strategies and Mechanisms. International Journal of Molecular Sciences, 2018, 19, 2677.	1.8	103
10	Small-molecule sequestration of amyloid-Î² as a drug discovery strategy for Alzheimerâ€™s disease. Science Advances, 2020, 6, .	4.7	95
11	Third generation antibody discovery methods:in silicorational design. Chemical Society Reviews, 2018, 47, 9137-9157.	18.7	94
12	Nanobodies Raised against Monomeric Î±-Synuclein Distinguish between Fibrils at Different Maturation Stages. Journal of Molecular Biology, 2013, 425, 2397-2411.	2.0	90
13	Multistep Inhibition of Î±-Synuclein Aggregation and Toxicity in Vitro and in Vivo by Trodusquemine. ACS Chemical Biology, 2018, 13, 2308-2319.	1.6	86
14	The molecular chaperones DNAJB6 and Hsp70 cooperate to suppress Î±-synuclein aggregation. Scientific Reports, 2017, 7, 9039.	1.6	67
15	Hsp70 Oligomerization Is Mediated by an Interaction between the Interdomain Linker and the Substrate-Binding Domain. PLoS ONE, 2013, 8, e67961.	1.1	66
16	Soluble aggregates present in cerebrospinal fluid change in size and mechanism of toxicity during Alzheimerâ€™s disease progression. Acta Neuropathologica Communications, 2019, 7, 120.	2.4	64
17	Sequence Specificity in the Entropy-Driven Binding of a Small Molecule and a Disordered Peptide. Journal of Molecular Biology, 2017, 429, 2772-2779.	2.0	62
18	Rational design of a conformation-specific antibody for the quantification of AÎ²2 oligomers. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13509-13518.	3.3	61

#	Article	IF	Citations
19	Methods of probing the interactions between small molecules and disordered proteins. Cellular and Molecular Life Sciences, 2017, 74, 3225-3243.	2.4	56
20	Structure of a low-population binding intermediate in protein-RNA recognition. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7171-7176.	3.3	54
21	Inhibition of Î±-Synuclein Fibril Elongation by Hsp70 Is Governed by a Kinetic Binding Competition between Î±-Synuclein Species. Biochemistry, 2017, 56, 1177-1180.	1.2	47
22	Cell surface localised Hsp70 is a cancer specific regulator of clathrinâ€independent endocytosis. FEBS Letters, 2015, 589, 2747-2753.	1.3	37
23	Structure of a low-population intermediate state in the release of an enzyme product. ELife, 2015, 4, .	2.8	33
24	Microfluidic Diffusion Viscometer for Rapid Analysis of Complex Solutions. Analytical Chemistry, 2016, 88, 3488-3493.	3.2	29
25	A Rational Design Strategy for the Selective Activity Enhancement of a Molecular Chaperone toward a Target Substrate. Biochemistry, 2015, 54, 5103-5112.	1.2	25
26	The Relationship between Aggregation and Toxicity of Polyglutamine-Containing Ataxin-3 in the Intracellular Environment of Escherichia coli. PLoS ONE, 2012, 7, e51890.	1.1	20
27	Biophysical approaches for the study of interactions between molecular chaperones and protein aggregates. Chemical Communications, 2015, 51, 14425-14434.	2.2	18
28	A Water-Bridged Cysteine-Cysteine Redox Regulation Mechanism in Bacterial Protein Tyrosine Phosphatases. CheM, 2017, 3, 665-677.	5.8	18
29	Enhancement of the Anti-Aggregation Activity of a Molecular Chaperone Using a Rationally Designed Post-Translational Modification. ACS Central Science, 2019, 5, 1417-1424.	5.3	18
30	Delivery of Native Proteins into C. elegans Using a Transduction Protocol Based on Lipid Vesicles. Scientific Reports, 2017, 7, 15045.	1.6	16
31	Structure and Dynamics of the Integrin LFA-1 I-Domain in the Inactive State Underlie its Inside-Out/Outside-In Signaling and Allosteric Mechanisms. Structure, 2015, 23, 745-753.	1.6	15
32	A rationally designed bicyclic peptide remodels AÎ²42 aggregation in vitro and reduces its toxicity in a worm model of Alzheimerâ€™s disease. Scientific Reports, 2020, 10, 15280.	1.6	15
33	Systematic Activity Maturation of a Single-Domain Antibody with Non-canonical Amino Acids through Chemical Mutagenesis. Cell Chemical Biology, 2021, 28, 70-77.e5.	2.5	15
34	The binding of the small heat-shock protein Î±B-crystallin to fibrils of Î±-synuclein is driven by entropic forces. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	15
35	The cellular modifier MOAGâ€4/SERF drives amyloid formation through charge complementation. EMBO Journal, 2021, 40, e107568.	3.5	15
36	Identification of an RNA Polymerase III Regulator Linked to Disease-Associated Protein Aggregation. Molecular Cell, 2017, 65, 1096-1108.e6.	4.5	14

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37	A Rationally Designed Hsp70 Variant Rescues the Aggregation-Associated Toxicity of Human IAPP in Cultured Pancreatic Islet Î²-Cells. International Journal of Molecular Sciences, 2018, 19, 1443.	1.8	14
38	C. elegans expressing D76N Î²2-microglobulin: a model for in vivo screening of drug candidates targeting amyloidosis. Scientific Reports, 2019, 9, 19960.	1.6	14
39	Cooperative Assembly of Hsp70 Subdomain Clusters. Biochemistry, 2018, 57, 3641-3649.	1.2	13
40	Rationally Designed Antibodies as Research Tools to Study the Structureâ€“Toxicity Relationship of Amyloid-Î² Oligomers. International Journal of Molecular Sciences, 2020, 21, 4542.	1.8	12
41	Comparative Studies in the A30P and A53T Î±-Synuclein C. elegans Strains to Investigate the Molecular Origins of Parkinson's Disease. Frontiers in Cell and Developmental Biology, 2021, 9, 552549.	1.8	12
42	Modulation of amyloid-Î² aggregation by metal complexes with a dual binding mode and their delivery across the bloodâ€“brain barrier using focused ultrasound. Chemical Science, 2021, 12, 9485-9493.	3.7	12
43	NMR characterization of the conformational fluctuations of the human lymphocyte functionâ€associated antigenâ€1 Iâ€domain. Protein Science, 2014, 23, 1596-1606.	3.1	8
44	Automated Behavioral Analysis of Large C. elegans Populations Using a Wide Field-of-view Tracking Platform. Journal of Visualized Experiments, 2018, , .	0.2	7
45	The Diagnostic Potential of Amyloidogenic Proteins. International Journal of Molecular Sciences, 2021, 22, 4128.	1.8	7
46	Rationally Designed Bicyclic Peptides Prevent the Conversion of AÎ²42 Assemblies Into Fibrillar Structures. Frontiers in Neuroscience, 2021, 15, 623097.	1.4	6
47	Man does not live by intrinsically unstructured proteins alone: The role of structured regions in aggregation. BioEssays, 2021, 43, e2100178.	1.2	3
48	Rational Design of Conformation-Specific Antibodies for Tau Oligomers. Biophysical Journal, 2020, 118, 370a-371a.	0.2	1
49	A Chemical Mutagenesis Approach to Insert Post-translational Modifications in Aggregation-Prone Proteins. ACS Chemical Neuroscience, 2022, 13, 1714-1718.	1.7	1
50	The polyglutamine protein ataxin-3 enables normal growth under heat shock conditions in the methylotrophic yeast Pichia pastoris. Scientific Reports, 2017, 7, 13417.	1.6	0
51	O2â€02â€02: TARGETING AMYLOID FORMATION USING RATIONALLY DESIGNED ANTIBODIES. Alzheimer's and Dementia, 2018, 14, P611.	0.4	0