

# Francesco Simone Ruggeri

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

75 papers	2,641 citations	28 h-index	50 g-index
90 ext. papers	3,548 ext. citations	10.4 avg, IF	5.15 L-index

#	Paper	IF	Citations
75	FUS Phase Separation Is Modulated by a Molecular Chaperone and Methylation of Arginine Cation-Interactions. <i>Cell</i> , <b>2018</b> , 173, 720-734.e15	56.2	409
74	Infrared nanospectroscopy characterization of oligomeric and fibrillar aggregates during amyloid formation. <i>Nature Communications</i> , <b>2015</b> , 6, 7831	17.4	169
73	Measurement of intrinsic properties of amyloid fibrils by the peak force QNM method. <i>Nanoscale</i> , <b>2012</b> , 4, 4426-9	7.7	149
72	Cholesterol catalyses A $\beta$ 2 aggregation through a heterogeneous nucleation pathway in the presence of lipid membranes. <i>Nature Chemistry</i> , <b>2018</b> , 10, 673-683	17.6	126
71	The H50Q mutation enhances $\beta$ -synuclein aggregation, secretion, and toxicity. <i>Journal of Biological Chemistry</i> , <b>2014</b> , 289, 21856-76	5.4	126
70	Influence of the $\beta$ -sheet content on the mechanical properties of aggregates during amyloid fibrillization. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 2462-6	16.4	106
69	Nanoscale studies link amyloid maturity with polyglutamine diseases onset. <i>Scientific Reports</i> , <b>2016</b> , 6, 31155	4.9	93
68	Detecting nanoscale vibrations as signature of life. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 378-81	11.5	80
67	Different soluble aggregates of A $\beta$ 2 can give rise to cellular toxicity through different mechanisms. <i>Nature Communications</i> , <b>2019</b> , 10, 1541	17.4	71
66	Trodusquemine enhances A $\beta$ aggregation but suppresses its toxicity by displacing oligomers from cell membranes. <i>Nature Communications</i> , <b>2019</b> , 10, 225	17.4	69
65	Nanoplasmonic mid-infrared biosensor for protein secondary structure detection. <i>Light: Science and Applications</i> , <b>2017</b> , 6, e17029	16.7	66
64	Silk micrococoon for protein stabilisation and molecular encapsulation. <i>Nature Communications</i> , <b>2017</b> , 8, 15902	17.4	65
63	AFM-Based Single Molecule Techniques: Unraveling the Amyloid Pathogenic Species. <i>Current Pharmaceutical Design</i> , <b>2016</b> , 22, 3950-70	3.3	58
62	Atomic force microscopy for single molecule characterisation of protein aggregation. <i>Archives of Biochemistry and Biophysics</i> , <b>2019</b> , 664, 134-148	4.1	57
61	Determination of Polypeptide Conformation with Nanoscale Resolution in Water. <i>ACS Nano</i> , <b>2018</b> , 12, 6612-6619	16.7	52
60	Identification and nanomechanical characterization of the fundamental single-strand protofilaments of amyloid $\beta$ -synuclein fibrils. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 7230-7235	11.5	51
59	Nanobodies raised against monomeric $\gamma$ -synuclein inhibit fibril formation and destabilize toxic oligomeric species. <i>BMC Biology</i> , <b>2017</b> , 15, 57	7.3	46

58	Nanoscale spatially resolved infrared spectra from single microdroplets. <i>Lab on A Chip</i> , <b>2014</b> , 14, 1315-9	7.2	41
57	One-pot semisynthesis of exon 1 of the Huntingtin protein: new tools for elucidating the role of posttranslational modifications in the pathogenesis of Huntington's disease. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 1928-33	16.4	39
56	Mutant Exon1 Huntingtin Aggregation is Regulated by T3 Phosphorylation-Induced Structural Changes and Crosstalk between T3 Phosphorylation and Acetylation at K6. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 5202-5207	16.4	38
55	A critical concentration of N-terminal pyroglutamylated amyloid beta drives the misfolding of Ab1-42 into more toxic aggregates. <i>International Journal of Biochemistry and Cell Biology</i> , <b>2016</b> , 79, 261-270	5.6	36
54	N-terminal Huntingtin (Htt) phosphorylation is a molecular switch regulating Htt aggregation, helical conformation, internalization, and nuclear targeting. <i>Journal of Biological Chemistry</i> , <b>2018</b> , 293, 18540-18558	5.4	36
53	Soluble aggregates present in cerebrospinal fluid change in size and mechanism of toxicity during Alzheimer's disease progression. <i>Acta Neuropathologica Communications</i> , <b>2019</b> , 7, 120	7.3	35
52	Single molecule secondary structure determination of proteins through infrared absorption nanospectroscopy. <i>Nature Communications</i> , <b>2020</b> , 11, 2945	17.4	34
51	Stabilization and Characterization of Cytotoxic A $\beta$ Oligomers Isolated from an Aggregation Reaction in the Presence of Zinc Ions. <i>ACS Chemical Neuroscience</i> , <b>2018</b> , 9, 2959-2971	5.7	33
50	Biomolecular condensates undergo a generic shear-mediated liquid-to-solid transition. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 841-847	28.7	33
49	Identification of Oxidative Stress in Red Blood Cells with Nanoscale Chemical Resolution by Infrared Nanospectroscopy. <i>International Journal of Molecular Sciences</i> , <b>2018</b> , 19,	6.3	32
48	Small-molecule sequestration of amyloid- $\beta$ as a drug discovery strategy for Alzheimer's disease. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	28
47	Transthyretin Inhibits Primary and Secondary Nucleations of Amyloid- $\beta$ Peptide Aggregation and Reduces the Toxicity of Its Oligomers. <i>Biomacromolecules</i> , <b>2020</b> , 21, 1112-1125	6.9	28
46	Stabilized tilted-octahedra halide perovskites inhibit local formation of performance-limiting phases.. <i>Science</i> , <b>2021</b> , 374, 1598-1605	33.3	28
45	Rational design of a conformation-specific antibody for the quantification of A $\beta$ oligomers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 13509-13518	11.5	26
44	The Influence of Pathogenic Mutations in $\beta$ Synuclein on Biophysical and Structural Characteristics of Amyloid Fibrils. <i>ACS Nano</i> , <b>2020</b> , 14, 5213-5222	16.7	24
43	Fabrication and Characterization of Reconstituted Silk Microgels for the Storage and Release of Small Molecules. <i>Macromolecular Rapid Communications</i> , <b>2019</b> , 40, e1800898	4.8	23
42	Water-Dispersible Polydopamine-Coated Nanofibers for Stimulation of Neuronal Growth and Adhesion. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, e1701485	10.1	23
41	Trodusquemine displaces protein misfolded oligomers from cell membranes and abrogates their cytotoxicity through a generic mechanism. <i>Communications Biology</i> , <b>2020</b> , 3, 435	6.7	23

40	Molecular determinants of the interaction of EGCG with ordered and disordered proteins. <i>Biopolymers</i> , <b>2018</b> , 109, e23117	2.2	20
39	Concentration-dependent and surface-assisted self-assembly properties of a bioactive estrogen receptor E-derived peptide. <i>Journal of Peptide Science</i> , <b>2015</b> , 21, 95-104	2.1	20
38	Micro- and nanoscale hierarchical structure of core-shell protein microgels. <i>Journal of Materials Chemistry B</i> , <b>2016</b> , 4, 7989-7999	7.3	19
37	Solution fibre spinning technique for the fabrication of tuneable decellularised matrix-laden fibres and fibrous micromembranes. <i>Acta Biomaterialia</i> , <b>2018</b> , 78, 111-122	10.8	19
36	Microfluidic deposition for resolving single-molecule protein architecture and heterogeneity. <i>Nature Communications</i> , <b>2018</b> , 9, 3890	17.4	19
35	Influence of the E-sheet Content on the Mechanical Properties of Aggregates during Amyloid Fibrillization. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 2492-2496	3.6	15
34	Ultrathin Polydopamine Films with Phospholipid Nanodiscs Containing a Glycophorin A Domain. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2000378	15.6	14
33	Amyloid single-cell cytotoxicity assays by nanomotion detection. <i>Cell Death Discovery</i> , <b>2017</b> , 3, 17053	6.9	13
32	Infrared nanospectroscopic mapping of a single metaphase chromosome. <i>Nucleic Acids Research</i> , <b>2019</b> , 47, e108	20.1	11
31	Squalamine and Its Derivatives Modulate the Aggregation of Amyloid-E and ESynuclein and Suppress the Toxicity of Their Oligomers. <i>Frontiers in Neuroscience</i> , <b>2021</b> , 15, 680026	5.1	11
30	Infrared nanospectroscopy reveals the molecular interaction fingerprint of an aggregation inhibitor with single A $\beta$ 2 oligomers. <i>Nature Communications</i> , <b>2021</b> , 12, 688	17.4	11
29	Controlled self-assembly of plant proteins into high-performance multifunctional nanostructured films. <i>Nature Communications</i> , <b>2021</b> , 12, 3529	17.4	10
28	Sequence-Optimized Peptide Nanofibers as Growth Stimulators for Regeneration of Peripheral Neurons. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1809112	15.6	9
27	Rationally Designed Antibodies as Research Tools to Study the Structure-Toxicity Relationship of Amyloid-E Oligomers. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	7
26	Environmental Control of Amyloid Polymorphism by Modulation of Hydrodynamic Stress. <i>ACS Nano</i> , <b>2021</b> , 15, 944-953	16.7	7
25	Effects of sedimentation, microgravity, hydrodynamic mixing and air-water interface on ESynuclein amyloid formation. <i>Chemical Science</i> , <b>2020</b> , 11, 3687-3693	9.4	7
24	Evolution of Conformation, Nanomechanics, and Infrared Nanospectroscopy of Single Amyloid Fibrils Converting into Microcrystals. <i>Advanced Science</i> , <b>2021</b> , 8, 2002182	13.6	6
23	A dopamine metabolite stabilizes neurotoxic amyloid-E oligomers. <i>Communications Biology</i> , <b>2021</b> , 4, 19	6.7	6

22	Characterizing Individual Protein Aggregates by Infrared Nanospectroscopy and Atomic Force Microscopy. <i>Journal of Visualized Experiments</i> , <b>2019</b> ,	1.6	5
21	One-Pot Semisynthesis of Exon 1 of the Huntingtin Protein: New Tools for Elucidating the Role of Posttranslational Modifications in the Pathogenesis of Huntington's Disease. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 1959-1964	3.6	5
20	Influence of the electro-optical properties of an $\text{Si:H}$ single layer on the performances of a pin solar cell. <i>Thin Solid Films</i> , <b>2012</b> , 520, 4036-4040	2.2	5
19	Small molecule sequestration of amyloid- $\beta$ s a drug discovery strategy for Alzheimer's disease		4
18	A rationally designed bicyclic peptide remodels A $\beta$ 2 aggregation in vitro and reduces its toxicity in a worm model of Alzheimer's disease. <i>Scientific Reports</i> , <b>2020</b> , 10, 15280	4.9	4
17	Supramolecular Peptide Nanofibrils with Optimized Sequences and Molecular Structures for Efficient Retroviral Transduction. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2009382	15.6	4
16	Alpha Synuclein only Forms Fibrils In Vitro when Larger than its Critical Size of 70 Monomers. <i>ChemBioChem</i> , <b>2021</b> , 22, 2867-2871	3.8	4
15	Frontispiece: Mutant Exon1 Huntingtin Aggregation is Regulated by T3 Phosphorylation-Induced Structural Changes and Crosstalk between T3 Phosphorylation and Acetylation at K6. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56,	16.4	3
14	Analysis of B-crystallin polydispersity in solution through native microfluidic electrophoresis. <i>Analyst, The</i> , <b>2019</b> , 144, 4413-4424	5	3
13	Thermoresponsive, Pyrrolidone-Based Antifouling Polymer Brushes. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 10, 1701167	4.1	3
12	The Hsc70 Disaggregation Machinery Removes Monomer Units Directly from $\beta$ Synuclein Fibril Ends		3
11	The Nt17 domain and its helical conformation regulate the aggregation, cellular properties and neurotoxicity of mutant huntingtin exon 1		3
10	Imaging protein aggregates in the serum and cerebrospinal fluid in Parkinson's disease. <i>Brain</i> , <b>2021</b> ,	11.2	3
9	Mutant Exon1 Huntingtin Aggregation is Regulated by T3 Phosphorylation-Induced Structural Changes and Crosstalk between T3 Phosphorylation and Acetylation at K6. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 5286-5291	3.6	2
8	The Hsc70 disaggregation machinery removes monomer units directly from $\beta$ synuclein fibril ends. <i>Nature Communications</i> , <b>2021</b> , 12, 5999	17.4	2
7	In situ Sub-Cellular Identification of Functional Amyloids in Bacteria and Archaea by Infrared Nanospectroscopy.. <i>Small Methods</i> , <b>2021</b> , 5, e2001002	12.8	2
6	Soluble amyloid beta-containing aggregates are present throughout the brain at early stages of Alzheimer's disease. <i>Brain Communications</i> , <b>2021</b> , 3, fcb147	4.5	2
5	The Nt17 Domain and its Helical Conformation Regulate the Aggregation, Cellular Properties and Neurotoxicity of Mutant Huntingtin Exon 1. <i>Journal of Molecular Biology</i> , <b>2021</b> , 433, 167222	6.5	2

4	Frontispiz: Mutant Exon1 Huntingtin Aggregation is Regulated by T3 Phosphorylation-Induced Structural Changes and Crosstalk between T3 Phosphorylation and Acetylation at K6. <i>Angewandte Chemie</i> , <b>2017</b> , 129,	3.6	1
3	N-terminal phosphorylation of Huntingtin: A molecular switch for regulating Htt aggregation, helical conformation, internalization and nuclear targeting		1
2	Berichtigung: One-Pot Semisynthesis of Exon 1 of the Huntingtin Protein: New Tools for Elucidating the Role of Posttranslational Modifications in the Pathogenesis of Huntington's Disease. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 7517-7517	3.6	
1	Unraveling the Physicochemical Determinants of Protein Liquid-liquid Phase Separation by Nanoscale Infrared Vibrational Spectroscopy. <i>Bio-protocol</i> , <b>2021</b> , 11, e4122	0.9	