Nuno Filipe Azevedo

List of Publications by Year in Descending Order

120 papers	3,179 citations	31 h-index	52 g-index
131 ext. papers	3,900 ext. citations	4.9 avg, IF	5.4 L-index

#	Paper	IF	Citations
120	SARS-CoV-2 Diagnostics Based on Nucleic Acids Amplification: From Fundamental Concepts to Applications and Beyond.. *Frontiers in Cellular and Infection Microbiology*, **2022**, 12, 799678	5.9	1
119	Modelling aptamers with nucleic acid mimics (NAM): From sequence to three-dimensional docking.. *PLoS ONE*, **2022**, 17, e0264701	3.7	0
118	Prevalence and Diversity of and Staphylococcal Enterotoxins in Raw Milk From Northern Portugal.. *Frontiers in Microbiology*, **2022**, 13, 846653	5.7	0
117	Improving aptamer performance with nucleic acid mimics: de novo and post-SELEX approaches. *Trends in Biotechnology*, **2021**,	15.1	1
116	Biofilms vs. cities and humans vs. aliens - a tale of reproducibility in biofilms. *Trends in Microbiology*, **2021**, 29, 1062-1071	12.4	1
115	Lipoplexes to Deliver Oligonucleotides in Gram-Positive and Gram-Negative Bacteria: Towards Treatment of Blood Infections. *Pharmaceutics*, **2021**, 13,	6.4	2
114	Helicobacter pylori lipopolysaccharide structural domains and their recognition by immune proteins revealed with carbohydrate microarrays. *Carbohydrate Polymers*, **2021**, 253, 117350	10.3	2
113	Computational resources and strategies to assess single-molecule dynamics of the translation process in S. cerevisiae. *Briefings in Bioinformatics*, **2021**, 22, 219-231	13.4	1
112	Integration of FISH and Microfluidics. *Methods in Molecular Biology*, **2021**, 2246, 249-261	1.4	
111	FISH Variants. *Methods in Molecular Biology*, **2021**, 2246, 17-33	1.4	0
110	FISH in Food Samples. *Methods in Molecular Biology*, **2021**, 2246, 279-290	1.4	
109	Delivery of Oligonucleotides into Bacteria by Fusogenic Liposomes. *Methods in Molecular Biology*, **2021**, 2246, 87-96	1.4	2
108	An Introduction to Fluorescence in situ Hybridization in Microorganisms. *Methods in Molecular Biology*, **2021**, 2246, 1-15	1.4	0
107	Interlaboratory study for the evaluation of three microtiter plate-based biofilm quantification methods. *Scientific Reports*, **2021**, 11, 13779	4.9	4
106	Friends with Benefits: An Inside Look of Periodontal MicrobesRInteractions Using Fluorescence In Situ Hybridization-Scoping Review. *Microorganisms*, **2021**, 9,	4.9	1
105	infection: from standard to alternative treatment strategies. *Critical Reviews in Microbiology*, **2021**, 1-21	7.8	3
104	Computational Resources and Strategies to Construct Single-Molecule Models of FISH. *Methods in Molecular Biology*, **2021**, 2246, 317-330	1.4	

103	A comprehensive model for the diffusion and hybridization processes of nucleic acid probes in fluorescence in situ hybridization. *Biotechnology and Bioengineering*, **2020**, 117, 3212-3223	4.9	0
102	FISH and chips: a review of microfluidic platforms for FISH analysis. *Medical Microbiology and Immunology*, **2020**, 209, 373-391	4	11
101	Application of Agent-Based Modelling to Simulate Ribosome Translation. *Lecture Notes in Computer Science*, **2020**, 200-211	0.9	
100	Minimum information guideline for spectrophotometric and fluorometric methods to assess biofilm formation in microplates. *Biofilm*, **2020**, 2, 100010	5.9	31
99	Increased Intraspecies Diversity in Biofilms Promotes Cellular Growth at the Expense of Matrix Production. *Antibiotics*, **2020**, 9,	4.9	4
98	Antimicrobial coating innovations to prevent infectious disease: a consensus view from the AMiCl COST Action. *Journal of Hospital Infection*, **2020**, 105, 116-118	6.9	6
97	Detection of Microorganisms by Fluorescence In Situ Hybridization Using Peptide Nucleic Acid. *Methods in Molecular Biology*, **2020**, 2105, 217-230	1.4	4
96	Optimizing locked nucleic acid/2RO-methyl-RNA fluorescence in situ hybridization (LNA/2ROMe-FISH) procedure for bacterial detection. *PLoS ONE*, **2019**, 14, e0217689	3.7	10
95	Propidium iodide staining underestimates viability of adherent bacterial cells. *Scientific Reports*, **2019**, 9, 6483	4.9	84
94	Application of agent-based modelling to assess single-molecule transport across the cell envelope of E. coli. *Computers in Biology and Medicine*, **2019**, 107, 218-226	7	2
93	Validation of Biomode S.A. Probe4Cronobacter for the Identification of spp. *Journal of AOAC INTERNATIONAL*, **2019**, 102, 855-864	1.7	2
92	Development and application of Peptide Nucleic Acid Fluorescence in situ Hybridization for the specific detection of Listeria monocytogenes. *Food Microbiology*, **2019**, 80, 1-8	6	17
91	Eco-friendly non-biocide-release coatings for marine biofouling prevention. *Science of the Total Environment*, **2019**, 650, 2499-2511	10.2	51
90	Agent-based model of diffusion of N-acyl homoserine lactones in a multicellular environment of Pseudomonas aeruginosa and Candida albicans. *Biofouling*, **2018**, 34, 335-345	3.3	8
89	Surface modifications for antimicrobial effects in the healthcare setting: a critical overview. *Journal of Hospital Infection*, **2018**, 99, 239-249	6.9	147
88	Nanomaterials and molecular transporters to overcome the bacterial envelope barrier: Towards advanced delivery of antibiotics. *Advanced Drug Delivery Reviews*, **2018**, 136-137, 28-48	18.5	58
87	Anti-miRNA oligonucleotides: A comprehensive guide for design. *RNA Biology*, **2018**, 15, 338-352	4.8	90
86	Influence of the fixation/permeabilization step on peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) for the detection of bacteria. *PLoS ONE*, **2018**, 13, e0196522	3.7	14

85	Pulsed laser deposition of copper and zinc doped hydroxyapatite coatings for biomedical applications. *Surface and Coatings Technology*, **2018**, 333, 168-177	4.4	64
84	Identification of pathogenic bacteria in complex samples using a smartphone based fluorescence microscope.. *RSC Advances*, **2018**, 8, 36493-36502	3.7	31
83	Targeting miR-9 in gastric cancer cells using locked nucleic acid oligonucleotides. *BMC Molecular Biology*, **2018**, 19, 6	4.5	12
82	Quantitative assessment of individual populations within polymicrobial biofilms. *Scientific Reports*, **2018**, 8, 9494	4.9	20
81	Response surface methodology to optimize peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) in Saccharomyces cerevisiae. *LWT - Food Science and Technology*, **2017**, 80, 27-31	5.4	1
80	Yeasts identification in microfluidic devices using peptide nucleic acid fluorescence in situ hybridization (PNA-FISH). *Biomedical Microdevices*, **2017**, 19, 11	3.7	9
79	Intracellular delivery of oligonucleotides in Helicobacter pylori by fusogenic liposomes in the presence of gastric mucus. *Biomaterials*, **2017**, 138, 1-12	15.6	19
78	Detection of Helicobacter pylori in the Gastric Mucosa by Fluorescence In Vivo Hybridization. *Methods in Molecular Biology*, **2017**, 1616, 137-146	1.4	4
77	Impact of polymicrobial biofilms in catheter-associated urinary tract infections. *Critical Reviews in Microbiology*, **2017**, 43, 423-439	7.8	44
76	An in vitro model of catheter-associated urinary tract infections to investigate the role of uncommon bacteria on the Escherichia coli microbial consortium. *Biochemical Engineering Journal*, **2017**, 118, 64-69	4.2	12
75	Developing a model for cystic fibrosis sociomicrobiology based on antibiotic and environmental stress. *International Journal of Medical Microbiology*, **2017**, 307, 460-470	3.7	10
74	Morphological transition of Helicobacter pylori adapted to water. *Future Microbiology*, **2017**, 12, 1167-1179	2.9	4
73	Discriminating typical and atypical cystic fibrosis-related bacteria by multiplex PNA-FISH. *Biotechnology and Bioengineering*, **2017**, 114, 355-367	4.9	11
72	Critical review on biofilm methods. *Critical Reviews in Microbiology*, **2017**, 43, 313-351	7.8	454
71	Applications of optical DNA mapping in microbiology. *BioTechniques*, **2017**, 62, 255-267	2.5	13
70	Polymicrobial Ventilator-Associated Pneumonia: Fighting In Vitro Candida albicans-Pseudomonas aeruginosa Biofilms with Antifungal-Antibacterial Combination Therapy. *PLoS ONE*, **2017**, 12, e0170433	3.7	25
69	It is all about location: how to pinpoint microorganisms and their functions in multispecies biofilms. *Future Microbiology*, **2017**, 12, 987-999	2.9	10
68	Prediction of melting temperatures in fluorescence in situ hybridization (FISH) procedures using thermodynamic models. *Critical Reviews in Biotechnology*, **2016**, 36, 566-77	9.4	21

67	Discrimination of bacteriophage infected cells using locked nucleic acid fluorescent in situ hybridization (LNA-FISH). *Biofouling*, **2016**, 32, 179-90	3.3	24
66	The cystic fibrosis microbiome in an ecological perspective and its impact in antibiotic therapy. *Applied Microbiology and Biotechnology*, **2016**, 100, 1163-1181	5.7	26
65	Application of locked nucleic acid-based probes in fluorescence in situ hybridization. *Applied Microbiology and Biotechnology*, **2016**, 100, 5897-906	5.7	15
64	Optimization of peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) for the detection of bacteria: The effect of pH, dextran sulfate and probe concentration. *Journal of Biotechnology*, **2016**, 226, 1-7	3.7	14
63	Impact of Delftia tsuruhatensis and Achromobacter xylosoxidans on Escherichia coli dual-species biofilms treated with antibiotic agents. *Biofouling*, **2016**, 32, 227-41	3.3	11
62	Computational resources and strategies to construct single-molecule metabolic models of microbial cells. *Briefings in Bioinformatics*, **2016**, 17, 863-76	13.4	8
61	Fluorescence In Vivo Hybridization (FIVH) for Detection of Helicobacter pylori Infection in a C57BL/6 Mouse Model. *PLoS ONE*, **2016**, 11, e0148353	3.7	10
60	Single Molecule Simulation of Diffusion and Enzyme Kinetics. *Journal of Physical Chemistry B*, **2016**, 120, 3809-20	3.4	6
59	FISHji: New ImageJ macros for the quantification of fluorescence in epifluorescence images. *Biochemical Engineering Journal*, **2016**, 112, 61-69	4.2	10
58	Novel strategy to detect and locate periodontal pathogens: The PNA-FISH technique. *Microbiological Research*, **2016**, 192, 185-191	5.3	14
57	Mismatch discrimination in fluorescent in situ hybridization using different types of nucleic acids. *Applied Microbiology and Biotechnology*, **2015**, 99, 3961-9	5.7	23
56	Enabling systematic, harmonised and large-scale biofilms data computation: the Biofilms Experiment Workbench. *Computer Methods and Programs in Biomedicine*, **2015**, 118, 309-21	6.9	6
55	Detection and discrimination of biofilm populations using locked nucleic acid/2?-O-methyl-RNA fluorescence in situ hybridization (LNA/2?OMe-FISH). *Biochemical Engineering Journal*, **2015**, 104, 64-73	4.2	16
54	Microbiome in cystic fibrosis: Shaping polymicrobial interactions for advances in antibiotic therapy. *Critical Reviews in Microbiology*, **2015**, 41, 353-65	7.8	20
53	Agent-based spatiotemporal simulation of biomolecular systems within the open source MASON framework. *BioMed Research International*, **2015**, 2015, 769471	3	5
52	Effect of Native Gastric Mucus on in vivo Hybridization Therapies Directed at Helicobacter pylori. *Molecular Therapy - Nucleic Acids*, **2015**, 4, e269	10.7	8
51	Relationship between invasion of the periodontium by periodontal pathogens and periodontal disease: a systematic review. *Virulence*, **2015**, 6, 208-15	4.7	22
50	Towards Fluorescence In Vivo Hybridization (FIVH) Detection of H. pylori in Gastric Mucosa Using Advanced LNA Probes. *PLoS ONE*, **2015**, 10, e0125494	3.7	25

49	Interaction between atypical microorganisms and E. coli in catheter-associated urinary tract biofilms. *Biofouling*, **2014**, 30, 893-902	3.3	22
48	Optimization of a peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) method for the detection of bacteria and disclosure of a formamide effect. *Journal of Biotechnology*, **2014**, 187, 16-24	3.7	26
47	Minimum information about a biofilm experiment (MIABiE): standards for reporting experiments and data on sessile microbial communities living at interfaces. *Pathogens and Disease*, **2014**, 70, 250-6	4.2	31
46	A harmonised vocabulary for communicating and interchanging Biofilms experimental results. *Journal of Integrative Bioinformatics*, **2014**, 11, 32-47	3.8	2
45	Water-induced modulation of Helicobacter pylori virulence properties. *Memorias Do Instituto Oswaldo Cruz*, **2014**, 109, 414-9	2.6	1
44	Emergent bacteria in cystic fibrosis: in vitro biofilm formation and resilience under variable oxygen conditions. *BioMed Research International*, **2014**, 2014, 678301	3	23
43	A new colorimetric peptide nucleic acid-based assay for the specific detection of bacteria. *Future Microbiology*, **2014**, 9, 1131-42	2.9	0
42	Detection of Dehalococcoides spp. by peptide nucleic acid fluorescent in situ hybridization. *Journal of Molecular Microbiology and Biotechnology*, **2014**, 24, 142-9	0.9	0
41	BEW: Bioinformatics Workbench for Analysis of Biofilms Experimental Data. *Advances in Intelligent Systems and Computing*, **2014**, 49-56	0.4	1
40	Designing an Ontology Tool for the Unification of Biofilms Data. *Advances in Intelligent Systems and Computing*, **2014**, 41-48	0.4	
39	An harmonised vocabulary for communicating and interchanging biofilms experimental results. *Journal of Integrative Bioinformatics*, **2014**, 11, 249	3.8	
38	Biofilm formation with mixed cultures of Pseudomonas aeruginosa/Escherichia coli on silicone using artificial urine to mimic urinary catheters. *Biofouling*, **2013**, 29, 829-40	3.3	39
37	Fluorescence in situ Hybridization method using Peptide Nucleic Acid probes for rapid detection of Lactobacillus and Gardnerella spp. *BMC Microbiology*, **2013**, 13, 82	4.5	35
36	Rapid detection of urinary tract infections caused by Proteus spp. using PNA-FISH. *European Journal of Clinical Microbiology and Infectious Diseases*, **2013**, 32, 781-6	5.3	12
35	Detection of Salmonella enterica serovar Enteritidis using real time PCR, immunocapture assay, PNA FISH and standard culture methods in different types of food samples. *International Journal of Food Microbiology*, **2013**, 161, 16-22	5.8	53
34	Fluorescence in situ hybridization method using a peptide nucleic acid probe for identification of Lactobacillus spp. in milk samples. *International Journal of Food Microbiology*, **2013**, 162, 64-70	5.8	24
33	Detection of Escherichia coli O157 by peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) and comparison to a standard culture method. *Applied and Environmental Microbiology*, **2013**, 79, 6293-300	4.8	30
32	Validation of a fluorescence in situ hybridization method using peptide nucleic acid probes for detection of Helicobacter pylori clarithromycin resistance in gastric biopsy specimens. *Journal of Clinical Microbiology*, **2013**, 51, 1887-93	9.7	34

31	Hybridization-based detection of Helicobacter pylori at human body temperature using advanced locked nucleic acid (LNA) probes. *PLoS ONE*, **2013**, 8, e81230	3.7	32
30	Proposal for a method to estimate nutrient shock effects in bacteria. *BMC Research Notes*, **2012**, 5, 422	2.3	10
29	Antibiotic resistance of mixed biofilms in cystic fibrosis: impact of emerging microorganisms on treatment of infection. *International Journal of Antimicrobial Agents*, **2012**, 40, 260-3	14.3	72
28	Environmental factors influencing molinate biodegradation by a two-member mixed culture in rice paddy field floodwater. *International Biodeterioration and Biodegradation*, **2012**, 72, 52-58	4.8	7
27	Computational approaches to standard-compliant biofilm data for reliable analysis and integration. *Journal of Integrative Bioinformatics*, **2012**, 9, 57-68	3.8	3
26	BiofOmics: a Web platform for the systematic and standardized collection of high-throughput biofilm data. *PLoS ONE*, **2012**, 7, e39960	3.7	24
25	A Systematic Approach to the Interrogation and Sharing of Standardised Biofilm Signatures. *Advances in Intelligent and Soft Computing*, **2012**, 113-120		
24	Computational approaches to standard-compliant biofilm data for reliable analysis and integration. *Journal of Integrative Bioinformatics*, **2012**, 9, 203	3.8	1
23	Application of flow cytometry for the identification of Staphylococcus epidermidis by peptide nucleic acid fluorescence in situ hybridization (PNA FISH) in blood samples. *Antonie Van Leeuwenhoek*, **2011**, 100, 463-70	2.1	16
22	PNA-FISH as a new diagnostic method for the determination of clarithromycin resistance of Helicobacter pylori. *BMC Microbiology*, **2011**, 11, 101	4.5	27
21	Interaction of Legionella pneumophila and Helicobacter pylori with bacterial species isolated from drinking water biofilms. *BMC Microbiology*, **2011**, 11, 57	4.5	31
20	Discriminating multi-species populations in biofilms with peptide nucleic acid fluorescence in situ hybridization (PNA FISH). *PLoS ONE*, **2011**, 6, e14786	3.7	105
19	Fluorescence in situ hybridization method using a peptide nucleic acid probe for identification of Salmonella spp. in a broad spectrum of samples. *Applied and Environmental Microbiology*, **2010**, 76, 4476-85	4.8	63
18	Effect of chlorine on incorporation of Helicobacter pylori into drinking water biofilms. *Applied and Environmental Microbiology*, **2010**, 76, 1669-73	4.8	24
17	Identification of cell-surface mannans in a virulent Helicobacter pylori strain. *Carbohydrate Research* , **2010**, 345, 830-8	2.9	9
16	Development and application of a novel peptide nucleic acid probe for the specific detection of Cronobacter genomospecies (Enterobacter sakazakii) in powdered infant formula. *Applied and Environmental Microbiology*, **2009**, 75, 2925-30	4.8	43
15	Time to "go large" on biofilm research: advantages of an omics approach. *Biotechnology Letters*, **2009**, 31, 477-85	3	19
14	Validation of SYTO 9/propidium iodide uptake for rapid detection of viable but noncultivable Legionella pneumophila. *Microbial Ecology*, **2009**, 58, 56-62	4.4	47

13	The epidemiology of Helicobacter pylori and public health implications. *Helicobacter*, **2009**, 14 Suppl 1, 1-7	4.9	70
12	Bioaccumulation of amylose-like glycans by Helicobacter pylori. *Helicobacter*, **2009**, 14, 559-70	4.9	11
11	Survival of gastric and enterohepatic Helicobacter spp. in water: implications for transmission. *Applied and Environmental Microbiology*, **2008**, 74, 1805-11	4.8	53
10	Persistence of Helicobacter pylori in heterotrophic drinking-water biofilms. *Applied and Environmental Microbiology*, **2008**, 74, 5898-904	4.8	73
9	DNA mimics for the rapid identification of microorganisms by fluorescence in situ hybridization (FISH). *International Journal of Molecular Sciences*, **2008**, 9, 1944-60	6.3	82
8	Coccoid form of Helicobacter pylori as a morphological manifestation of cell adaptation to the environment. *Applied and Environmental Microbiology*, **2007**, 73, 3423-7	4.8	82
7	Detection of Escherichia coli in biofilms from pipe samples and coupons in drinking water distribution networks. *Applied and Environmental Microbiology*, **2007**, 73, 7456-64	4.8	78
6	Development and application of a novel peptide nucleic acid probe for the specific detection of Helicobacter pylori in gastric biopsy specimens. *Journal of Clinical Microbiology*, **2007**, 45, 3089-94	9.7	50
5	A new model for the transmission of Helicobacter pylori: role of environmental reservoirs as gene pools to increase strain diversity. *Critical Reviews in Microbiology*, **2007**, 33, 157-69	7.8	35
4	Shear stress, temperature, and inoculation concentration influence the adhesion of water-stressed Helicobacter pylori to stainless steel 304 and polypropylene. *Applied and Environmental Microbiology*, **2006**, 72, 2936-41	4.8	58
3	Drinking water biofilm assessment of total and culturable bacteria under different operating conditions. *Biofouling*, **2006**, 22, 91-9	3.3	33
2	Adhesion of water stressed Helicobacter pylori to abiotic surfaces. *Journal of Applied Microbiology*, **2006**, 101, 718-24	4.7	50
1	Nutrient shock and incubation atmosphere influence recovery of culturable Helicobacter pylori from water. *Applied and Environmental Microbiology*, **2004**, 70, 490-3	4.8	36