Peter E Nielsen

List of Publications by Year in Descending Order

128 papers	8,329 citations	44 h-index	90 g-index
137 ext. papers	8,933 ext. citations	8.2 avg, IF	6.1 L-index

#	Paper	IF	Citations
128	Translocation of non-lytic antimicrobial peptides and bacteria penetrating peptides across the inner membrane of the bacterial envelope. *Current Genetics*, **2021**, 1	2.9	2
127	Uptake, Stability, and Activity of Antisense Anti- PNA-Peptide Conjugates in and the Role of SbmA. *ACS Chemical Biology*, **2021**, 16, 471-479	4.9	7
126	Targeting of the Essential , , and Genes in Carbapenem-Resistant by Antisense PNA Precision Antibacterials. *Biomedicines*, **2021**, 9,	4.8	4
125	Optimized Synthesis of Fmoc/Boc-Protected PNA Monomers and their Assembly into PNA Oligomers.. *European Journal of Organic Chemistry*, **2021**, 2021, 2792-2801	3.2	0
124	Antibiotic Potentiation in Multidrug-Resistant Gram-Negative Pathogenic Bacteria by a Synthetic Peptidomimetic. *ACS Infectious Diseases*, **2021**, 7, 2152-2163	5.5	6
123	Approaches for Systemic Delivery of Dystrophin Antisense Peptide Nucleic Acid in the mdx Mouse Model. *Nucleic Acid Therapeutics*, **2021**, 31, 208-219	4.8	2
122	Antisense inhibition of the Escherichia coli NrdAB aerobic ribonucleotide reductase is bactericidal due to induction of DNA strand breaks. *Journal of Antimicrobial Chemotherapy*, **2021**, 76, 2802-2814	5.1	1
121	Activating the Cpx response induces tolerance to antisense PNA delivered by an arginine-rich peptide in. *Molecular Therapy - Nucleic Acids*, **2021**, 25, 444-454	10.7	2
120	Enzyme-Triggered Release of the Antisense Octaarginine-PNA Conjugate from Phospholipase A2 Sensitive Liposomes.. *ACS Applied Bio Materials*, **2020**, 3, 1018-1025	4.1	7
119	Near-Infrared In Vivo Whole-Body Fluorescence Imaging of PNA. *Methods in Molecular Biology*, **2020** , 2105, 251-260	1.4	1
118	In Vitro Cellular Delivery of Peptide Nucleic Acid (PNA). *Methods in Molecular Biology*, **2020**, 2105, 173-185	1.4	0
117	Effective Cellular Delivery of Antisense Peptide Nucleic Acid by Conjugation to Guanidinylated Diaminobutanoic Acid-Based Peptide Dendrons. *Biomacromolecules*, **2020**, 21, 472-483	6.9	8
116	Targeting TdT gene expression in Molt-4 cells by PNA-octaarginine conjugates. *International Journal of Biological Macromolecules*, **2020**, 164, 4583-4590	7.9	9
115	PNA Antisense Targeting in Bacteria: Determination of Antibacterial Activity (MIC) of PNA-Peptide Conjugates. *Methods in Molecular Biology*, **2020**, 2105, 231-239	1.4	9
114	In Vivo Administration of Splice Switching PNAs Using the mdx Mouse as a Model System. *Methods in Molecular Biology*, **2020**, 2105, 241-250	1.4	1
113	Cooperative Cellular Uptake and Activity of Octaarginine Antisense Peptide Nucleic acid (PNA) Conjugates. *Biomolecules*, **2019**, 9,	5.9	13
112	PNA Length Restriction of Antibacterial Activity of Peptide-PNA Conjugates in Through Effects of the Inner Membrane. *Frontiers in Microbiology*, **2019**, 10, 1032	5.7	16

111	Microwave-assisted solid-phase synthesis of antisense acpP peptide nucleic acid-peptide conjugates active against colistin- and tigecycline-resistant E. coli and K. pneumoniae. *European Journal of Medicinal Chemistry*, **2019**, 168, 134-145	6.8	12
110	Downregulation of TdT Expression through Splicing Modulation by Antisense Peptide Nucleic Acid (PNA). *Current Pharmaceutical Biotechnology*, **2019**, 20, 168-178	2.6	14
109	Effective photo-enhancement of cellular activity of fluorophore-octaarginine antisense PNA conjugates correlates with singlet oxygen formation, endosomal escape and chromophore lipophilicity. *Scientific Reports*, **2018**, 8, 638	4.9	9
108	An antisense peptide nucleic acid against Pseudomonas aeruginosa inhibiting bacterial-induced inflammatory responses in the cystic fibrosis IB3-1 cellular model system. *International Journal of Biological Macromolecules*, **2017**, 99, 492-498	7.9	15
107	Role of Cell-Penetrating Peptides in Intracellular Delivery of Peptide Nucleic Acids Targeting Hepadnaviral Replication. *Molecular Therapy - Nucleic Acids*, **2017**, 9, 162-169	10.7	17
106	Antibacterial Peptide Nucleic Acid-Antimicrobial Peptide (PNA-AMP) Conjugates: Antisense Targeting of Fatty Acid Biosynthesis. *Bioconjugate Chemistry*, **2016**, 27, 863-7	6.3	51
105	Disruption of Higher Order DNA Structures in Friedreich's Ataxia (GAA)n Repeats by PNA or LNA Targeting. *PLoS ONE*, **2016**, 11, e0165788	3.7	8
104	Cellular Antisense Activity of PNA-Oligo(bicycloguanidinium) Conjugates Forming Self-Assembled Nanoaggregates. *ChemBioChem*, **2015**, 16, 1593-600	3.8	5
103	Therapeutic Potential of Cell Penetrating Peptides (CPPs) and Cationic Polymers for Chronic Hepatitis B. *International Journal of Molecular Sciences*, **2015**, 16, 28230-41	6.3	17
102	Electroporation Enhanced Effect of Dystrophin Splice Switching PNA Oligomers in Normal and Dystrophic Muscle. *Molecular Therapy - Nucleic Acids*, **2015**, 4, e267	10.7	8
101	Cross-catalytic peptide nucleic acid (PNA) replication based on templated ligation. *Organic and Biomolecular Chemistry*, **2014**, 12, 6901-7	3.9	12
100	A phosphorylation tag for uranyl mediated protein purification and photo assisted tag removal. *PLoS ONE*, **2014**, 9, e91138	3.7	5
99	Cellular delivery of peptide nucleic acids (PNAs). *Methods in Molecular Biology*, **2014**, 1050, 193-205	1.4	23
98	Role of SbmA in the uptake of peptide nucleic acid (PNA)-peptide conjugates in E. coli. *ACS Chemical Biology*, **2013**, 8, 360-7	4.9	53
97	Formamide in the cradle of life?: Comment on "Formamide and the origin of life" by R. Saladino, C. Crestini, S. Pino, G. Costanzo and E. Di Mauro. *Physics of Life Reviews*, **2012**, 9, 107-8; discussion 121-3	2.1	1
96	Nanomolar cellular antisense activity of peptide nucleic acid (PNA) cholic acid ("umbrella") and cholesterol conjugates delivered by cationic lipids. *Bioconjugate Chemistry*, **2012**, 23, 196-202	6.3	33
95	Potent inhibition of late stages of hepadnavirus replication by a modified cell penetrating peptide. *PLoS ONE*, **2012**, 7, e48721	3.7	11
94	Potent antibacterial antisense peptide-peptide nucleic acid conjugates against Pseudomonas aeruginosa. *Nucleic Acid Therapeutics*, **2012**, 22, 323-34	4.8	59

93	"Artifactual" arsenate DNA. *Artificial DNA, PNA & XNA*, **2012**, 3, 1-2		1
92	Cell number and transfection volume dependent peptide nucleic acid antisense activity by cationic delivery methods. *Artificial DNA, PNA & XNA*, **2012**, 3, 22-7		6
91	Natural Arsenate DNA?. *Artificial DNA, PNA & XNA*, **2011**, 2, 4-5		1
90	Targeted gene correction using psoralen, chlorambucil and camptothecin conjugates of triplex forming peptide nucleic acid (PNA). *Artificial DNA, PNA & XNA*, **2011**, 2, 23-32		2
89	A novel pseudo-complementary PNA G-C base pair. *Artificial DNA, PNA & XNA*, **2011**, 2, 33-37		12
88	Sensitive detection of nucleic acids by PNA hybridization directed co-localization of fluorescent beads. *Artificial DNA, PNA & XNA*, **2011**, 2, 60-66		15
87	Artificial DNA structures. *Artificial DNA, PNA & XNA*, **2011**, 2, 39		
86	Peptide nucleic acid (PNA) cell penetrating peptide (CPP) conjugates as carriers for cellular delivery of antisense oligomers. *Artificial DNA, PNA & XNA*, **2011**, 2, 90-9		31
85	Improved cellular uptake of antisense peptide nucleic acids by conjugation to a cell-penetrating peptide and a lipid domain. *Methods in Molecular Biology*, **2011**, 751, 209-21	1.4	18
84	Gene targeting and expression modulation by peptide nucleic acids (PNA). *Current Pharmaceutical Design*, **2010**, 16, 3118-23	3.3	53
83	Natural - synthetic - artificial!. *Artificial DNA, PNA & XNA*, **2010**, 1, 58-59		3
82	Introducing Artificial DNA: PNA & XNA. *Artificial DNA, PNA & XNA*, **2010**, 1, 1		
81	Cellular delivery and antisense effects of peptide nucleic acid conjugated to polyethyleneimine via disulfide linkers. *Bioconjugate Chemistry*, **2010**, 21, 1933-8	6.3	22
80	Modulation of mdm2 pre-mRNA splicing by 9-aminoacridine-PNA (peptide nucleic acid) conjugates targeting intron-exon junctions. *BMC Cancer*, **2010**, 10, 342	4.8	18
79	Targeted gene repair facilitated by peptide nucleic acids (PNA). *ChemBioChem*, **2010**, 11, 2073-6	3.8	26
78	Peptide nucleic acids (PNA) in chemical biology and drug discovery. *Chemistry and Biodiversity*, **2010**, 7, 786-804	2.5	182
77	Sequence-selective targeting of duplex DNA by peptide nucleic acids. *Current Opinion in Molecular Therapeutics*, **2010**, 12, 184-91		26
76	Targeted correction of a thalassemia-associated beta-globin mutation induced by pseudo-complementary peptide nucleic acids. *Nucleic Acids Research*, **2009**, 37, 3635-44	20.1	43

75	High-affinity triplex targeting of double stranded DNA using chemically modified peptide nucleic acid oligomers. *Nucleic Acids Research*, **2009**, 37, 4498-507	20.1	61
74	9-Acridinylpeptides and 9-acridinyl-4-nitrophenylsulfonylpeptides. *International Journal of Peptide and Protein Research*, **2009**, 32, 331-343		6
73	Self-assembling, dynamic alphaPNAs. *Chemistry and Biology*, **2009**, 16, 689-90		7
72	Hydrogen bonding versus stacking stabilization by modified nucleobases incorporated in PNA.DNA duplexes. *Biophysical Chemistry*, **2009**, 141, 29-33	3.5	15
71	Uranyl photofootprinting. *Methods in Molecular Biology*, **2009**, 543, 87-96	1.4	5
70	A new molecule of life?. *Scientific American*, **2008**, 299, 64-71	0.5	18
69	Improved cellular activity of antisense peptide nucleic acids by conjugation to a cationic peptide-lipid (CatLip) domain. *Bioconjugate Chemistry*, **2008**, 19, 1526-34	6.3	73
68	Correction of a splice-site mutation in the beta-globin gene stimulated by triplex-forming peptide nucleic acids. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 13514-9	11.5	75
67	Subnanomolar antisense activity of phosphonate-peptide nucleic acid (PNA) conjugates delivered by cationic lipids to HeLa cells. *Nucleic Acids Research*, **2008**, 36, 4424-32	20.1	57
66	Peptide nucleic acids and the origin of life. *Chemistry and Biodiversity*, **2007**, 4, 1996-2002	2.5	50
65	Question 1: Peptide nucleic acids and the origin and homochirality of life. *Origins of Life and Evolution of Biospheres*, **2007**, 37, 323-8	1.5	12
64	Site-directed gene mutation at mixed sequence targets by psoralen-conjugated pseudo-complementary peptide nucleic acids. *Nucleic Acids Research*, **2007**, 35, 7604-13	20.1	32
63	On the stability of peptide nucleic acid duplexes in the presence of organic solvents. *Nucleic Acids Research*, **2007**, 35, 3367-74	20.1	32
62	Structural diversity of target-specific homopyrimidine peptide nucleic acid-dsDNA complexes. *Nucleic Acids Research*, **2006**, 34, 5790-9	20.1	26
61	Unique properties of purine/pyrimidine asymmetric PNA.DNA duplexes: differential stabilization of PNA.DNA duplexes by purines in the PNA strand. *Biophysical Journal*, **2006**, 90, 1329-37	2.9	25
60	Evaluation of cell-penetrating peptides (CPPs) as vehicles for intracellular delivery of antisense peptide nucleic acid (PNA). *Bioconjugate Chemistry*, **2006**, 17, 750-8	6.3	116
59	Site-specific gene modification by PNAs conjugated to psoralen. *Biochemistry*, **2006**, 45, 314-23	3.2	30
58	Photochemically enhanced cellular delivery of cell penetrating peptide-PNA conjugates. *FEBS Letters*, **2006**, 580, 1451-6	3.8	67

57	Cellular delivery of polyheteroaromate-peptide nucleic acid conjugates mediated by cationic lipids. *Bioconjugate Chemistry*, **2006**, 17, 189-94	6.3	21
56	Enhanced delivery of cell-penetrating peptide-peptide nucleic acid conjugates by endosomal disruption. *Nature Protocols*, **2006**, 1, 633-6	18.8	102
55	Sequence-specific inhibition of duck hepatitis B virus reverse transcription by peptide nucleic acids (PNA). *Journal of Hepatology*, **2005**, 42, 180-7	13.4	23
54	Gene targeting using peptide nucleic acid. *Methods in Molecular Biology*, **2005**, 288, 343-58	1.4	18
53	Addressing the challenges of cellular delivery and bioavailability of peptide nucleic acids (PNA). *Quarterly Reviews of Biophysics*, **2005**, 38, 345-50	7	51
52	Versatile Oligo(N-Substituted) Glycines: The Many Roles of Peptoids in Drug Discovery **2005**, 1-31		19
51	Peptides, Peptides and Isosteric Backbones: New Scaffolds with Controlled Shapes for Mimicking Protein Secondary Structure Elements **2005**, 33-120		1
50	Regulation of Gene Expression with Pyrrole-Imidazole Polyamides **2005**, 121-152		1
49	Helical Peptide Nucleic Acids (PNAs) **2005**, 193-221		1
48	DNA and RNA-cleaving Pseudo-peptides **2005**, 223-240		
47	Calcium ions effectively enhance the effect of antisense peptide nucleic acids conjugated to cationic tat and oligoarginine peptides. *Chemistry and Biology*, **2005**, 12, 923-9		119
46	Extended target sequence specificity of PNA-minor-groove binder conjugates. *ChemBioChem*, **2005**, 6, 66-8	3.8	6
45	Down-regulation of MDM2 and activation of p53 in human cancer cells by antisense 9-aminoacridine-PNA (peptide nucleic acid) conjugates. *Nucleic Acids Research*, **2004**, 32, 4893-902	20.1	32
44	PNA Technology. *Molecular Biotechnology*, **2004**, 26, 233-48	3	168
43	Inhibition of Staphylococcus aureus gene expression and growth using antisense peptide nucleic acids. *Molecular Therapy*, **2004**, 10, 652-9	11.7	119
42	Cellular delivery of peptide nucleic acid (PNA). *Advanced Drug Delivery Reviews*, **2003**, 55, 267-80	18.5	214
41	Superior duplex DNA strand invasion by acridine conjugated peptide nucleic acids. *Journal of the American Chemical Society*, **2003**, 125, 6378-9	16.4	67
40	Pseudocomplementary PNAs as selective modifiers of protein activity on duplex DNA: the case of type IIs restriction enzymes. *Nucleic Acids Research*, **2003**, 31, 3929-35	20.1	27

39	The translation start codon region is sensitive to antisense PNA inhibition in Escherichia coli. *Oligonucleotides*, **2003**, 13, 427-33		80
38	Kinetics and mechanism of the DNA double helix invasion by pseudocomplementary peptide nucleic acids. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 5953-8	11.5	90
37	Substituted 1,8-naphthyridin-2(1H)-ones are superior to thymine in the recognition of adenine in duplex as well as triplex structures. *Journal of the American Chemical Society*, **2002**, 124, 3254-62	16.4	44
36	Bactericidal antisense effects of peptide-PNA conjugates. *Nature Biotechnology*, **2001**, 19, 360-4	44.5	288
35	Peptide nucleic acids as antibacterial agents via the antisense principle. *Expert Opinion on Investigational Drugs*, **2001**, 10, 331-41	5.9	19
34	Pyrrolidine PNA: a novel conformationally restricted PNA analogue. *Organic Letters*, **2000**, 2, 4161-3	6.2	48
33	Sequence-specific protection of duplex DNA against restriction and methylation enzymes by pseudocomplementary PNAs. *Biochemistry*, **2000**, 39, 10908-13	3.2	60
32	Antisense PNA effects in Escherichia coli are limited by the outer-membrane LPS layer. *Microbiology (United Kingdom)*, **2000**, 146 (Pt 10), 2665-2670	2.9	66
31	6-Thioguanine in Peptide Nucleic Acids. Synthesis and Hybridization Properties. *Nucleosides & Nucleotides*, **1999**, 18, 5-9		7
30	Peptide Nucleic Acid. A Molecule with Two Identities. *Accounts of Chemical Research*, **1999**, 32, 624-630	24.3	329
29	Antisense inhibition of gene expression in bacteria by PNA targeted to mRNA. *Nature Biotechnology*, **1998**, 16, 355-8	44.5	188
28	Kinetics for hybridization of peptide nucleic acids (PNA) with DNA and RNA studied with the BIAcore technique. *Biochemistry*, **1997**, 36, 5072-7	3.2	348
27	Crystal structure of a peptide nucleic acid (PNA) duplex at 1.7 A resolution. *Nature Structural Biology*, **1997**, 4, 98-101		197
26	Fluorescein-conjugated lysine monomers for solid phase synthesis of fluorescent peptides and PNA oligomers. *Bioconjugate Chemistry*, **1997**, 8, 503-9	6.3	34
25	Enhanced peptide nucleic acid binding to supercoiled DNA: possible implications for DNA "breathing" dynamics. *Biochemistry*, **1996**, 35, 8863-9	3.2	114
24	Strand Displacement Binding of a Duplex-Forming Homopurine PNA to a Homopyrimidine Duplex DNA Target. *Journal of the American Chemical Society*, **1996**, 118, 2287-2288	16.4	92
23	Transcription-mediated binding of peptide nucleic acid (PNA) to double-stranded DNA: sequence-specific suicide transcription. *Nucleic Acids Research*, **1996**, 24, 458-63	20.1	109
22	Peptide nucleic acid (PNA): A lead for gene therapeutic drugs. *Journal of Computer - Aided Molecular Design*, **1996**, 4, 76-84		10

21	Enhanced uranyl photocleavage across the minor groove of all (A/T)4 sequences indicates a similar narrow minor groove conformation. *Journal of Molecular Recognition*, **1996**, 9, 219-27	2.6	14
20	Peptide Nucleic Acids (PNAs) Containing Thymine Monomers Derived from Chiral Amino Acids: Hybridization and Solubility Properties of D-Lysine PNA. *Angewandte Chemie International Edition in English*, **1996**, 35, 1939-1942		171
19	Solid-phase synthesis of peptide nucleic acids. *Journal of Peptide Science*, **1995**, 1, 175-83	2.1	294
18	Template switching between PNA and RNA oligonucleotides. *Nature*, **1995**, 376, 578-81	50.4	211
17	Efficient pH-independent sequence-specific DNA binding by pseudoisocytosine-containing bis-PNA. *Nucleic Acids Research*, **1995**, 23, 217-22	20.1	278
16	Evidence for (PNA)2/DNA triplex structure upon binding of PNA to dsDNA by strand displacement. *Journal of Molecular Recognition*, **1994**, 7, 165-70	2.6	111
15	Synthesis of Peptide Nucleic Acid Monomers Containing the Four Natural Nucleobases: Thymine, Cytosine, Adenine, and Guanine and Their Oligomerization. *Journal of Organic Chemistry*, **1994**, 59, 5767-5773	4.2	273
14	Sequence-specific transcription arrest by peptide nucleic acid bound to the DNA template strand. *Gene*, **1994**, 149, 139-45	3.8	161
13	Peptide Nucleic Acid (PNA). A Structural DNA Mimic. *Materials Research Society Symposia Proceedings*, **1993**, 330, 3		1
12	PNA hybridizes to complementary oligonucleotides obeying the Watson-Crick hydrogen-bonding rules. *Nature*, **1993**, 365, 566-8	50.4	1769
11	Chemical and photochemical probing of DNA complexes. *Journal of Molecular Recognition*, **1990**, 3, 1-25	2.6	112
10	Photofootprinting of drug-binding sites on DNA using diazo- and azido-9-aminoacridine derivatives. *FEBS Journal*, **1989**, 182, 437-44		51
9	On the DNA bending by psoralen interstrand crosslinking. A gel electrophoretic study. *Photochemistry and Photobiology*, **1988**, 48, 643-6	3.6	8
8	Detection of intercalation-induced changes in DNA structure by reaction with diethyl pyrocarbonate or potassium permanganate. Evidence against the induction of Hoogsteen base pairing by echinomycin. *FEBS Letters*, **1988**, 231, 172-6	3.8	45
7	Psoralen photofootprinting of protein-binding sites on DNA. *FEBS Letters*, **1988**, 229, 73-6	3.8	15
6	Uranyl salts as photochemical agents for cleavage of DNA and probing of protein-DNA contacts. *FEBS Letters*, **1988**, 235, 122-4	3.8	58
5	Repair in Escherichia coli of a psoralen-DNA interstrand crosslink site specifically introduced into T410A411 of the plasmid pUC 19. *Photochemistry and Photobiology*, **1986**, 44, 47-51	3.6	17
4	On the structure of active chromatin. A flow linear dichroism study of chromatin fractionated by nuclease digestion. *FEBS Letters*, **1984**, 169, 309-12	3.8	13

List of Publications

3	Peptide Nucleic Acids (PNAs) as a Tool in Chemical Biology107-118	
2	Chemical Biology of Peptide Nucleic Acids (PNAs)103-113	2
1	Cellular Bioavailability of Peptide Nucleic Acids (PNAs) Conjugated to Cell Penetrating Peptides305-338	4