

# Per-Åke Nygren

## List of Publications by Year in descending order

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109  
papers

6,389  
citations

76326

40  
h-index

69250

77  
g-index

111  
all docs

111  
docs citations

111  
times ranked

5428  
citing authors

#	ARTICLE	IF	CITATIONS
1	Binding proteins selected from combinatorial libraries of an $\alpha$ -helical bacterial receptor domain. <i>Nature Biotechnology</i> , 1997, 15, 772-777.	17.5	573
2	Affinity Fusion Strategies for Detection, Purification, and Immobilization of Recombinant Proteins. <i>Protein Expression and Purification</i> , 1997, 11, 1-16.	1.3	302
3	Consequences of Membrane Protein Overexpression in <i>Escherichia coli</i> . <i>Molecular and Cellular Proteomics</i> , 2007, 6, 1527-1550.	3.8	302
4	Affibody Molecules in Biotechnological and Medical Applications. <i>Trends in Biotechnology</i> , 2017, 35, 691-712.	9.3	259
5	Display of proteins on bacteria. <i>Journal of Biotechnology</i> , 2002, 96, 129-154.	3.8	247
6	ProteomeBinders: planning a European resource of affinity reagents for analysis of the human proteome. <i>Nature Methods</i> , 2007, 4, 13-17.	19.0	231
7	Alternative binding proteins: Affibody binding proteins developed from a small three-helix bundle scaffold. <i>FEBS Journal</i> , 2008, 275, 2668-2676.	4.7	229
8	A combinatorial library of an $\alpha$ -helical bacterial receptor domain. <i>Protein Engineering, Design and Selection</i> , 1995, 8, 601-608.	2.1	226
9	Engineering of a femtomolar affinity binding protein to human serum albumin. <i>Protein Engineering, Design and Selection</i> , 2008, 21, 515-527.	2.1	196
10	Binding proteins from alternative scaffolds. <i>Journal of Immunological Methods</i> , 2004, 290, 3-28.	1.4	178
11	Engineering proteins to facilitate bioprocessing. <i>Trends in Biotechnology</i> , 1994, 12, 184-188.	9.3	173
12	Scaffolds for engineering novel binding sites in proteins. <i>Current Opinion in Structural Biology</i> , 1997, 7, 463-469.	5.7	156
13	Analysis and use of the serum albumin binding domains of streptococcal protein G. <i>Journal of Molecular Recognition</i> , 1988, 1, 69-74.	2.1	154
14	Design and production of recombinant subunit vaccines. <i>Biotechnology and Applied Biochemistry</i> , 2000, 32, 95.	3.1	131
15	Genetic design for facilitated production and recovery of recombinant proteins in <i>Escherichia coli</i> . <i>Biotechnology and Applied Biochemistry</i> , 2002, 35, 91.	3.1	103
16	An affibody in complex with a target protein: Structure and coupled folding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 3185-3190.	7.1	101
17	Recombinant human factor VIII-specific affinity ligands selected from phage-displayed combinatorial libraries of protein A. <i>FEBS Journal</i> , 2001, 268, 4269-4277.	0.2	95
18	Analysis of Oligonucleotide Probe Affinities Using Surface Plasmon Resonance: A Means for Mutational Scanning. <i>Analytical Biochemistry</i> , 1997, 246, 34-44.	2.4	89

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19	Structure, Specificity, and Mode of Interaction for Bacterial Albumin-binding Modules. <i>Journal of Biological Chemistry</i> , 2002, 277, 8114-8120.	3.4	83
20	A dual expression system for the generation, analysis and purification of antibodies to a repeated sequence of the <i>Plasmodium falciparum</i> antigen Pf155/RESA. <i>Journal of Immunological Methods</i> , 1989, 124, 43-52.	1.4	81
21	An in vitro selected binding protein (affibody) shows conformation-dependent recognition of the respiratory syncytial virus (RSV) G protein. <i>Immunotechnology: an International Journal of Immunological Engineering</i> , 1999, 4, 237-252.	2.4	80
22	Structural basis for recognition by an in vitro evolved affibody. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 3191-3196.	7.1	78
23	Pneumolysin binds to the mannose receptor C type 1 (MRC-1) leading to anti-inflammatory responses and enhanced pneumococcal survival. <i>Nature Microbiology</i> , 2019, 4, 62-70.	13.3	77
24	Human immunoglobulin A (IgA)-specific ligands from combinatorial engineering of protein A. <i>FEBS Journal</i> , 2002, 269, 2647-2655.	0.2	76
25	Ligands selected from combinatorial libraries of protein A for use in affinity capture of apolipoprotein A-1M and Taq DNA polymerase. <i>Journal of Biotechnology</i> , 2000, 80, 45-54.	3.8	74
26	Anti-idiotypic protein domains selected from protein A-based affibody libraries. <i>Proteins: Structure, Function and Bioinformatics</i> , 2002, 48, 454-462.	2.6	71
27	All individual domains of staphylococcal protein A show Fab binding. <i>FEMS Immunology and Medical Microbiology</i> , 1998, 20, 69-78.	2.7	69
28	The serum albumin-binding region of streptococcal protein G: a bacterial fusion partner with carrier-related properties. <i>Journal of Immunological Methods</i> , 1997, 201, 115-123.	1.4	61
29	The serum albumin-binding domain of streptococcal protein G is a three-helical bundle: a heteronuclear NMR study. <i>FEBS Letters</i> , 1996, 378, 190-194.	2.8	60
30	Affibody protein capture microarrays: Synthesis and evaluation of random and directed immobilization of affibody molecules. <i>Analytical Biochemistry</i> , 2005, 341, 334-343.	2.4	58
31	Multiple affinity domains for the detection, purification and immobilization of recombinant proteins. <i>Journal of Biotechnology</i> , 1996, 9, 585-594.		57
32	Affibody Molecules in Protein Capture Microarrays: Evaluation of Multidomain Ligands and Different Detection Formats. <i>Journal of Proteome Research</i> , 2007, 6, 171-179.	3.7	56
33	Recombinant Spider Silk Genetically Functionalized with Affinity Domains. <i>Biomacromolecules</i> , 2014, 15, 1696-1706.	5.4	56
34	Engineering of Fc1 and Fc3 from human immunoglobulin G to analyse subclass specificity for staphylococcal protein A. <i>Journal of Immunological Methods</i> , 1997, 201, 25-34.	1.4	54
35	Minimum information about a protein affinity reagent (MIAPAR). <i>Nature Biotechnology</i> , 2010, 28, 650-653.	17.5	50
36	Competitive Elution of Protein A Fusion Proteins Allows Specific Recovery Under Mild Conditions. <i>FEBS Journal</i> , 1994, 224, 103-108.	0.2	48

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37	Hydrophobicity engineering to facilitate surface display of heterologous gene products on <i>Staphylococcus xylosum</i> . <i>Journal of Biotechnology</i> , 1995, 42, 207-219.	3.8	47
38	Construction and characterization of affibody-Fc chimeras produced in <i>Escherichia coli</i> . <i>Journal of Immunological Methods</i> , 2002, 261, 199-211.	1.4	47
39	Species-dependent binding of serum albumins to the streptococcal receptor protein G. <i>FEBS Journal</i> , 1990, 193, 143-148.	0.2	44
40	Detection of mutations in PCR products from clinical samples by surface plasmon resonance. , 1997, 10, 7-17.		44
41	Inhibition of the CD28-CD80 co-stimulation signal by a CD28-binding affibody ligand developed by combinatorial protein engineering. <i>Protein Engineering, Design and Selection</i> , 2003, 16, 691-697.	2.1	44
42	Capture of Single-Stranded DNA Assisted by Oligonucleotide Modules. <i>Analytical Biochemistry</i> , 1998, 255, 195-203.	2.4	43
43	Display of active subtilisin 309 on phage: analysis of parameters influencing the selection of subtilisin variants with changed substrate specificity from libraries using phosphorylating inhibitors 1 Edited by A. R. Fersht. <i>Journal of Molecular Biology</i> , 2000, 296, 87-102.	4.2	43
44	A novel affinity gene fusion system allowing protein A-based recovery of non-immunoglobulin gene products. <i>Journal of Biotechnology</i> , 2002, 99, 41-50.	3.8	40
45	Inclusion of a non-immunoglobulin binding protein in two-site ELISA for quantification of human serum proteins without interference by heterophilic serum antibodies. <i>Journal of Immunological Methods</i> , 2003, 283, 225-234.	1.4	40
46	Progress and Future Directions with Peptide-Drug Conjugates for Targeted Cancer Therapy. <i>Molecules</i> , 2021, 26, 6042.	3.8	40
47	Successive crystal structure snapshots suggest the basis for MHC class I peptide loading and editing by tapasin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 5055-5060.	7.1	39
48	Charge engineering of a protein domain to allow efficient ion-exchange recovery. <i>Protein Engineering, Design and Selection</i> , 2000, 13, 703-709.	2.1	38
49	Dual Labeling of a Binding Protein Allows for Specific Fluorescence Detection of Native Protein. <i>Analytical Biochemistry</i> , 2001, 295, 22-30.	2.4	38
50	Microbead display of proteins by cell-free expression of anchored DNA. <i>Journal of Biotechnology</i> , 2003, 106, 1-13.	3.8	37
51	Affibody- $\beta$ -galactosidase immunoconjugates produced as soluble fusion proteins in the <i>Escherichia coli</i> cytosol. <i>Journal of Immunological Methods</i> , 2003, 281, 149-160.	1.4	36
52	Direct and competitive kinetic analysis of the interaction between human IgG1 and a one domain analogue of protein A. <i>Journal of Immunological Methods</i> , 1995, 183, 43-49.	1.4	32
53	Genetic engineering of protein-peptide fusions for control of protein partitioning in thermoseparating aqueous two-phase systems. , 1999, 62, 135-144.		32
54	In vitro selection of enzymatically active lipase variants from phage libraries using a mechanism-based inhibitor. <i>Gene</i> , 2001, 272, 267-274.	2.2	32

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55	Affinity recovery of eight HER2-binding affibody variants using an anti-idiotypic affibody molecule as capture ligand. <i>Protein Expression and Purification</i> , 2011, 76, 127-135.	1.3	32
56	A general strategy for polymerization, assembly and expression of epitope-carrying peptides applied to the <i>Plasmodium falciparum</i> antigen Pf155/RESA. <i>Gene</i> , 1990, 89, 187-193.	2.2	31
57	Engineered bacterial receptors in immunology. <i>Current Opinion in Immunology</i> , 1993, 5, 272-277.	5.5	29
58	Detection of Antigens Using a Protein-DNA Chimera Developed by Enzymatic Covalent Bonding with phiX Gene A*. <i>Analytical Chemistry</i> , 2012, 84, 5040-5046.	6.5	27
59	The BR domain of PsrP interacts with extracellular DNA to promote bacterial aggregation; structural insights into pneumococcal biofilm formation. <i>Scientific Reports</i> , 2016, 6, 32371.	3.3	27
60	Integrated strategy for selective expanded bed ion-exchange adsorption and site-specific protein processing using gene fusion technology. <i>Journal of Biotechnology</i> , 2002, 96, 93-102.	3.8	26
61	Tailor-Making a Protein A-Derived Domain for Efficient Site-Specific Photocoupling to Fc of Mouse IgG1. <i>PLoS ONE</i> , 2013, 8, e56597.	2.5	26
62	Labeling of human C-peptide by conjugation with N-succinimidyl-4-[18F]fluorobenzoate. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2001, 44, 509-519.	1.0	23
63	Biophysical characterization of ZSPA-1-A phage-display selected binder to protein A. <i>Protein Science</i> , 2004, 13, 2078-2088.	7.6	23
64	Strategy for highly selective ion-exchange capture using a charge-polarizing fusion partner. <i>Journal of Chromatography A</i> , 2002, 942, 157-166.	3.7	22
65	Selection of TNF-binding affibody molecules using a beta-lactamase protein fragment complementation assay. <i>New Biotechnology</i> , 2009, 26, 251-259.	4.4	22
66	Proline substitution independently enhances H2D complex stabilization and TCR recognition of melanoma-associated peptides. <i>European Journal of Immunology</i> , 2013, 43, 3051-3060.	2.9	22
67	Ribosome Display Selection of a Murine IgG1 Fab Binding Affibody Molecule Allowing Species Selective Recovery Of Monoclonal Antibodies. <i>Molecular Biotechnology</i> , 2011, 48, 263-276.	2.4	21
68	Partitioning of peptides and recombinant protein-peptide fusions in thermoseparating aqueous two-phase systems: effect of peptide primary structure. <i>Biomedical Applications</i> , 2000, 743, 295-306.	1.7	20
69	An affibody-adalimumab hybrid blocks combined IL-6 and TNF-triggered serum amyloid A secretion in vivo. <i>MAbs</i> , 2014, 6, 1598-1607.	5.2	20
70	Production of a Thermostable DNA Polymerase by Site-Specific Cleavage of a Heat-Eluted Affinity Fusion Protein. <i>Protein Expression and Purification</i> , 1997, 9, 125-132.	1.3	19
71	Fluorescent detection of beta-lactamase activity in living <i>Escherichia coli</i> cells via esterase supplementation. <i>FEMS Microbiology Letters</i> , 2005, 242, 73-79.	1.8	18
72	Affinity maturation of a TNF-binding Affibody molecule by Darwinian survival selection. <i>Biotechnology and Applied Biochemistry</i> , 2010, 55, 111-120.	3.1	16

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73	Integrated bioprocess for production of human proinsulin C-peptide via heat release of an intracellular heptameric fusion protein. <i>Journal of Biotechnology</i> , 2000, 76, 215-226.	3.8	15
74	Fluorescence-microscopy-based image analysis for analyte-dependent particle doublet detection in a single-step immunoagglutination assay. <i>Analytical Biochemistry</i> , 2005, 338, 90-101.	2.4	15
75	Selectivity analysis of single binder assays used in plasma protein profiling. <i>Proteomics</i> , 2013, 13, 3406-3410.	2.2	15
76	Fluorescence resonance energy transfer-based detection of analytes using antiidiotypic affinity protein pairs. <i>Analytical Biochemistry</i> , 2004, 334, 72-80.	2.4	14
77	Gene fragment polymerization gives increased yields of recombinant human proinsulin C-peptide. <i>Gene</i> , 1998, 210, 203-210.	2.2	13
78	Selection and characterisation of affibody molecules inhibiting the interaction between Ras and Raf in vitro. <i>New Biotechnology</i> , 2010, 27, 766-773.	4.4	13
79	Structural and functional analysis of the human IgG-Fab receptor activity of streptococcal protein G. <i>Molecular Immunology</i> , 1991, 28, 1055-1061.	2.2	12
80	Kinetic characterization of the interaction of the Z-fragment of protein A with mouse-IgG3 in a volume in chemical space. , 1999, 37, 494-498.		12
81	Evaluation of different linker regions for multimerization and coupling chemistry for immobilization of a proteinaceous affinity ligand. <i>Protein Engineering, Design and Selection</i> , 2003, 16, 1147-1152.	2.1	12
82	Combinatorial expression vector engineering for tuning of recombinant protein production in <i>Escherichia coli</i> . <i>Nucleic Acids Research</i> , 2007, 35, e32-e32.	14.5	12
83	Systemic administration of monovalent follistatin-like 3-Fc-fusion protein increases muscle mass in mice. <i>IScience</i> , 2021, 24, 102488.	4.1	12
84	Efficient Labeling of Native Human IgG by Proximity-Based Sortase-Mediated Isopeptide Ligation. <i>Bioconjugate Chemistry</i> , 2021, 32, 1058-1066.	3.6	12
85	Predominance of H-2d- and H-2k-restricted T-cell epitopes in the highly repetitive <i>Plasmodium falciparum</i> antigen Pf332. <i>Molecular Immunology</i> , 1997, 34, 379-389.	2.2	11
86	Inhibitory effects of H-Ras/Raf-1-binding affibody molecules on synovial cell function. <i>AMB Express</i> , 2014, 4, 82.	3.0	11
87	Site-specific and reversible anchoring of active proteins onto cellulose using a cellulosome-like complex. <i>Journal of Biotechnology</i> , 2004, 109, 277-286.	3.8	10
88	Monitored whole gene in vitro evolution of an anti-hRaf-1 affibody molecule towards increased binding affinity. <i>New Biotechnology</i> , 2012, 29, 534-542.	4.4	10
89	Detection and Isolation of Recombinant Proteins Based on Binding Affinity of Reporter: Protein A. , 1997, 63, 103-118.		9
90	Unexpected T-cell recognition of an altered peptide ligand is driven by reversed thermodynamics. <i>European Journal of Immunology</i> , 2012, 42, 2990-3000.	2.9	9

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91	Tuning antiviral CD8 T-cell response via proline-altered peptide ligand vaccination. <i>PLoS Pathogens</i> , 2020, 16, e1008244.	4.7	9
92	Differential degradation of a recombinant albumin-binding receptor in <i>Escherichia coli</i> . <i>FEBS Journal</i> , 1991, 199, 41-46.	0.2	8
93	Mammalian cell production of a respiratory syncytial virus (RSV) candidate vaccine recovered using a product-specific affinity column. <i>Biotechnology and Applied Biochemistry</i> , 2001, 34, 25.	3.1	8
94	Chromophore pre-maturation for improved speed and sensitivity of split-GFP monitoring of protein secretion. <i>Scientific Reports</i> , 2019, 9, 310.	3.3	8
95	Discovery, optimization and biodistribution of an Affibody molecule for imaging of CD69. <i>Scientific Reports</i> , 2021, 11, 19151.	3.3	8
96	Strategies for Gene Fusions. , 1997, 62, 37-54.		7
97	Quantitative Investigation of the Modular Primer Effect for DNA and Peptide Nucleic Acid Hexamers. <i>Analytical Biochemistry</i> , 1999, 269, 155-161.	2.4	7
98	Functional selection of phage displayed peptides for facilitated design of fusion tags improving aqueous two-phase partitioning of recombinant proteins. <i>Journal of Biotechnology</i> , 2002, 93, 1-14.	3.8	7
99	<sup>1</sup> H, <sup>13</sup> C and <sup>15</sup> N resonance assignments of an affibody-target complex. <i>Journal of Biomolecular NMR</i> , 2002, 24, 271-272.	2.8	7
100	Affinity-based entrapment of the HER2 receptor in the endoplasmic reticulum using an affibody molecule. <i>Journal of Immunological Methods</i> , 2008, 338, 1-6.	1.4	7
101	Lysis of Staphylococcal Cells by Modular Lysin Domains Linked via a Non-covalent Barnase-Barstar Interaction Bridge. <i>Frontiers in Microbiology</i> , 2019, 10, 558.	3.5	7
102	Site-specific Photoconjugation of Beta-lactamase Fragments to Monoclonal Antibodies Enables Sensitive Analyte Detection via Split-Enzyme Complementation. <i>Biotechnology Journal</i> , 2018, 13, e1700688.	3.5	5
103	The Wittig bioconjugation of maleimide derived, water soluble phosphonium ylides to aldehyde-tagged proteins. <i>Organic and Biomolecular Chemistry</i> , 2021, 19, 10417-10423.	2.8	4
104	Affibody-mediated retention of the epidermal growth factor receptor in the secretory compartments leads to inhibition of phosphorylation in the kinase domain. <i>New Biotechnology</i> , 2009, 25, 417-423.	4.4	3
105	Affinity Ligands from Biological Combinatorial Libraries. <i>Methods of Biochemical Analysis</i> , 2011, 54, 269-278.	0.2	1
106	Cancer Diagnostics by Multiparameter Fluorescence Image Spectroscopy: A Bioinformatic Classifier Trained on Cultured Immunostained Cells. <i>Biophysical Journal</i> , 2013, 104, 342a.	0.5	1
107	Combinatorial Protein Chemistry- New Proteins With Selective Binding. <i>Biochemical Society Transactions</i> , 2000, 28, A125-A125.	3.4	0
108	Assigned NMR backbone resonances of the ligand-binding region domain of the pneumococcal serine-rich repeat protein (PsrP-BR) reveal a rigid monomer in solution. <i>Biomolecular NMR Assignments</i> , 2020, 14, 195-200.	0.8	0

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109	Genetic Strategies for Protein Purification., 1991, , 313-320.		0