

Niall Barron

List of Publications by Year in Descending Order

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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.

79
papers

1,951
citations

24
h-index

42
g-index

84
ext. papers

2,139
ext. citations

4.4
avg, IF

4.43
L-index

#	Paper	IF	Citations
79	Differential expression of miRNAs and functional role of mir-200a in high and low productivity CHO cells expressing an Fc fusion protein. <i>Biotechnology Letters</i> , 2021 , 43, 1551-1563	3	1
78	Tracing production instability in a clonally derived CHO cell line using single-cell transcriptomics. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 2016-2030	4.9	2
77	Expanding the Chinese hamster ovary cell long noncoding RNA transcriptome using RNASeq. <i>Biotechnology and Bioengineering</i> , 2020 , 117, 3224-3231	4.9	6
76	LC-MS/MS-based quantitative proteomic and phosphoproteomic analysis of CHO-K1 cells adapted to growth in glutamine-free media. <i>Biotechnology Letters</i> , 2020 , 42, 2523-2536	3	4
75	Altered gene expression in CHO cells following polyamine starvation. <i>Biotechnology Letters</i> , 2020 , 42, 927-936	3	0
74	Subphysiological temperature induces pervasive alternative splicing in Chinese hamster ovary cells. <i>Biotechnology and Bioengineering</i> , 2020 , 117, 2489-2503	4.9	2
73	Reinventing the Wheel: Synthetic Circular RNAs for Mammalian Cell Engineering. <i>Trends in Biotechnology</i> , 2020 , 38, 217-230	15.1	10
72	Increased growth rate and productivity following stable depletion of miR-7 in a mAb producing CHO cell line causes an increase in proteins associated with the Akt pathway and ribosome biogenesis. <i>Journal of Proteomics</i> , 2019 , 195, 23-32	3.9	9
71	Improvements in single-use bioreactor film material composition leads to robust and reliable Chinese hamster ovary cell performance. <i>Biotechnology Progress</i> , 2019 , 35, e2824	2.8	5
70	Genetic and Epigenetic Variation across Genes Involved in Energy Metabolism and Mitochondria of Chinese Hamster Ovary Cell Lines. <i>Biotechnology Journal</i> , 2019 , 14, e1800681	5.6	8
69	Transcriptomic analysis of IgG4 Fc-fusion protein degradation in a panel of clonally-derived CHO cell lines using RNASeq. <i>Biotechnology and Bioengineering</i> , 2019 , 116, 1556-1562	4.9	6
68	Leaky Expression of the TET-On System Hinders Control of Endogenous miRNA Abundance. <i>Biotechnology Journal</i> , 2019 , 14, e1800219	5.6	13
67	Zinc supplementation increases protein titer of recombinant CHO cells. <i>Cytotechnology</i> , 2019 , 71, 915-924	2.2	6
66	COMP-Ang1 Stabilizes Hyperglycemic Disruption of Blood-Retinal Barrier Phenotype in Human Retinal Microvascular Endothelial Cells 2019 , 60, 3547-3555		4
65	An arginase-based system for selection of transfected CHO cells without the use of toxic chemicals. <i>Journal of Biological Chemistry</i> , 2019 , 294, 18756-18768	5.4	4
64	Continuous translation of circularized mRNA improves recombinant protein titer. <i>Metabolic Engineering</i> , 2019 , 52, 284-292	9.7	16
63	Improved yield of rhEPO in CHO cells with synthetic 5SUTR. <i>Biotechnology Letters</i> , 2019 , 41, 231-239	3	5

62	Understanding biopharmaceutical production at single nucleotide resolution using ribosome footprint profiling. <i>Current Opinion in Biotechnology</i> , 2018 , 53, 182-190	11.4	3
61	Exploring the Potential Application of Short Non-Coding RNA-Based Genetic Circuits in Chinese Hamster Ovary Cells. <i>Biotechnology Journal</i> , 2018 , 13, e1700220	5.6	5
60	miR-CATCH Identifies Biologically Active miRNA Regulators of the Pro-Survival Gene XIAP, in Chinese Hamster Ovary Cells. <i>Biotechnology Journal</i> , 2018 , 13, e1700299	5.6	6
59	Clonal variation in productivity and proteolytic clipping of an Fc-fusion protein in CHO cells: Proteomic analysis suggests a role for defective protein folding and the UPR. <i>Journal of Biotechnology</i> , 2018 , 281, 21-30	3.7	6
58	A proteomic profiling dataset of recombinant Chinese hamster ovary cells showing enhanced cellular growth following miR-378 depletion. <i>Data in Brief</i> , 2018 , 21, 2679-2688	1.2	3
57	From media to mitochondria rewiring cellular energy metabolism of Chinese hamster ovary cells for the enhanced production of biopharmaceuticals. <i>Current Opinion in Chemical Engineering</i> , 2018 , 22, 71-80	5.4	8
56	Targeting miRNAs with CRISPR/Cas9 to Improve Recombinant Protein Production of CHO Cells. <i>Methods in Molecular Biology</i> , 2018 , 1850, 221-235	1.4	8
55	Depletion of endogenous miRNA-378-3p increases peak cell density of CHO DP12 cells and is correlated with elevated levels of ubiquitin carboxyl-terminal hydrolase 14. <i>Journal of Biotechnology</i> , 2018 , 288, 30-40	3.7	9
54	Application of response surface methodology in the design of functionally graded plasma sprayed hydroxyapatite coatings. <i>Surface and Coatings Technology</i> , 2017 , 313, 307-318	4.4	22
53	Ultra-deep next generation mitochondrial genome sequencing reveals widespread heteroplasmy in Chinese hamster ovary cells. <i>Metabolic Engineering</i> , 2017 , 41, 11-22	9.7	16
52	A Bioinformatics Pipeline for the Identification of CHO Cell Differential Gene Expression from RNA-Seq Data. <i>Methods in Molecular Biology</i> , 2017 , 1603, 169-186	1.4	2
51	Conditional Knockdown of Endogenous MicroRNAs in CHO Cells Using TET-ON-SanDI Sponge Vectors. <i>Methods in Molecular Biology</i> , 2017 , 1603, 87-100	1.4	6
50	Antimicrobial Peptide Production and Purification. <i>Methods in Molecular Biology</i> , 2017 , 1485, 401-410	1.4	3
49	Parallel mRNA, proteomics and miRNA expression analysis in cell line models of the intestine. <i>World Journal of Gastroenterology</i> , 2017 , 23, 7369-7386	5.6	12
48	[Cu(o-phthalate)(phenanthroline)] Exhibits Unique Superoxide-Mediated NCI-60 Chemotherapeutic Action through Genomic DNA Damage and Mitochondrial Dysfunction. <i>ACS Chemical Biology</i> , 2016 , 11, 159-71	4.9	36
47	Process-relevant concentrations of the leachable bDtbPP impact negatively on CHO cell production characteristics. <i>Biotechnology Progress</i> , 2016 , 32, 1547-1558	2.8	24
46	Radical-induced purine lesion formation is dependent on DNA helical topology. <i>Free Radical Research</i> , 2016 , 50, S91-S101	4	8
45	Conserved microRNA function as a basis for Chinese hamster ovary cell engineering. <i>Biotechnology Letters</i> , 2015 , 37, 787-98	3	20

44	Towards next generation CHO cell biology: Bioinformatics methods for RNA-Seq-based expression profiling. <i>Biotechnology Journal</i> , 2015 , 10, 950-66	5.6	12
43	Re-programming CHO cell metabolism using miR-23 tips the balance towards a highly productive phenotype. <i>Biotechnology Journal</i> , 2015 , 10, 1029-40	5.6	37
42	Bioprocess engineering: micromanaging Chinese hamster ovary cell phenotypes. <i>Pharmaceutical Bioprocessing</i> , 2014 , 2, 323-337		7
41	Copper phenanthrene oxidative chemical nucleases. <i>Inorganic Chemistry</i> , 2014 , 53, 5392-404	5.1	55
40	Statistical methods for mining Chinese hamster ovary cell omics data: from differential expression to integrated multilevel analysis of the biological system. <i>Pharmaceutical Bioprocessing</i> , 2014 , 2, 469-481		3
39	CHO cell culture longevity and recombinant protein yield are enhanced by depletion of miR-7 activity via sponge decoy vectors. <i>Biotechnology Journal</i> , 2014 , 9, 396-404	5.6	42
38	CHO microRNA engineering is growing up: recent successes and future challenges. <i>Biotechnology Advances</i> , 2013 , 31, 1501-13	17.8	67
37	Transcriptomic analysis of clonal growth rate variation during CHO cell line development. <i>Journal of Biotechnology</i> , 2013 , 166, 105-13	3.7	24
36	A new phenanthroline-oxazine ligand: synthesis, coordination chemistry and atypical DNA binding interaction. <i>Chemical Communications</i> , 2013 , 49, 2341-3	5.8	34
35	Regulating bioactivity of Cu ²⁺ bis-1,10-phenanthroline artificial metallonucleases with sterically functionalized pendant carboxylates. <i>Journal of Medicinal Chemistry</i> , 2013 , 56, 8599-615	8.3	47
34	MiR-7 triggers cell cycle arrest at the G1/S transition by targeting multiple genes including Skp2 and Psme3. <i>PLoS ONE</i> , 2013 , 8, e65671	3.7	49
33	Integrated miRNA, mRNA and protein expression analysis reveals the role of post-transcriptional regulation in controlling CHO cell growth rate. <i>BMC Genomics</i> , 2012 , 13, 656	4.5	68
32	Impact of miR-7 over-expression on the proteome of Chinese hamster ovary cells. <i>Journal of Biotechnology</i> , 2012 , 160, 251-62	3.7	51
31	Potent oxidative DNA cleavage by the di-copper cytotoxin: [Cu ₂ (terephthalate)(1,10-phen) ₄] ²⁺ . <i>Chemical Communications</i> , 2012 , 48, 6906-8	5.8	46
30	Target Prediction Algorithms and Bioinformatics Resources for miRNA Studies 2012 , 29-48		1
29	Biochemical relapse following radical prostatectomy and miR-200a levels in prostate cancer. <i>Prostate</i> , 2012 , 72, 1193-9	4.2	43
28	Microarray expression profiling identifies genes regulating sustained cell specific productivity (S-Qp) in CHO K1 production cell lines. <i>Biotechnology Journal</i> , 2012 , 7, 516-26	5.6	13
27	CGCDB: a web-based resource for the investigation of gene coexpression in CHO cell culture. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 1368-70	4.9	12

26	Utilization and evaluation of CHO-specific sequence databases for mass spectrometry based proteomics. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 1386-94	4.9	42
25	MicroRNAs as Potential Engineering Targets for Improvement of CHO Cell Production Phenotypes 2012 , 3-11		1
24	MicroRNAs: tiny targets for engineering CHO cell phenotypes?. <i>Biotechnology Letters</i> , 2011 , 33, 11-21	3	55
23	Large scale microarray profiling and coexpression network analysis of CHO cells identifies transcriptional modules associated with growth and productivity. <i>Journal of Biotechnology</i> , 2011 , 155, 350-9	3.7	57
22	Development and characterization of a Chinese hamster ovary cell-specific oligonucleotide microarray. <i>Biotechnology Letters</i> , 2011 , 33, 1773-9	3	16
21	Sustained productivity in recombinant Chinese hamster ovary (CHO) cell lines: proteome analysis of the molecular basis for a process-related phenotype. <i>BMC Biotechnology</i> , 2011 , 11, 78	3.5	53
20	Engineering CHO cell growth by stable manipulation of miRNA expression. <i>BMC Proceedings</i> , 2011 , 5 Suppl 8, P22	2.3	2
19	Predicting cell-specific productivity from CHO gene expression. <i>Journal of Biotechnology</i> , 2011 , 151, 159-65	3.7	78
18	Engineering CHO cell growth and recombinant protein productivity by overexpression of miR-7. <i>Journal of Biotechnology</i> , 2011 , 151, 204-11	3.7	93
17	Exercise intensity-dependent regulation of peroxisome proliferator-activated receptor coactivator-1 mRNA abundance is associated with differential activation of upstream signalling kinases in human skeletal muscle. <i>Journal of Physiology</i> , 2010 , 588, 1779-90	3.9	253
16	Decreasing Txnip mRNA and protein levels in pancreatic MIN6 cells reduces reactive oxygen species and restores glucose regulated insulin secretion. <i>Cellular Physiology and Biochemistry</i> , 2010 , 25, 667-74	3.9	21
15	Microarray and proteomics expression profiling identifies several candidates, including the valosin-containing protein (VCP), involved in regulating high cellular growth rate in production CHO cell lines. <i>Biotechnology and Bioengineering</i> , 2010 , 106, 42-56	4.9	60
14	Interaction of Plasma Deposited HMDSO-Based Coatings with Fibrinogen and Human Blood Plasma: The Correlation between Bulk Plasma, Surface Characteristics and Biomolecule Interaction. <i>Plasma Processes and Polymers</i> , 2010 , 7, 411-421	3.4	18
13	Directed differentiation of mouse embryonic stem cells into pancreatic-like or neuronal- and glial-like phenotypes. <i>Tissue Engineering</i> , 2007 , 13, 2419-30		18
12	Detecting de novo insulin synthesis in embryonic stem cell-derived populations. <i>Experimental Cell Research</i> , 2007 , 313, 1405-14	4.2	6
11	Targeted genetic modification of cell lines for recombinant protein production. <i>Cytotechnology</i> , 2007 , 53, 65-73	2.2	4
10	Detection and cloning of LINE-1 elements in CHO cells. <i>Cytotechnology</i> , 2007 , 53, 75-80	2.2	2
9	Initial identification of low temperature and culture stage induction of miRNA expression in suspension CHO-K1 cells. <i>Journal of Biotechnology</i> , 2007 , 130, 213-8	3.7	84

8	A microarray approach to translational medicine in breast cancer: how representative are cell line models of clinical conditions?. <i>Anticancer Research</i> , 2007 , 27, 1295-300	2.3	8
7	In vivo cytoplasmic localization of the p40 protein of the L1 transposable element of human genome. <i>Doklady Biochemistry and Biophysics</i> , 2004 , 395, 118-9	0.8	1
6	Steroid receptor RNA activator stimulates proliferation as well as apoptosis in vivo. <i>Molecular and Cellular Biology</i> , 2003 , 23, 7163-76	4.8	127
5	Resistance to multiple steroids in two sisters. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2001 , 76, 161-6	5.1	15
4	Short communication: Ethanol production from cellulose at 45°C using a batch-fed system containing alginate-immobilized <i>Kluyveromyces marxianus</i> IMB3. <i>World Journal of Microbiology and Biotechnology</i> , 1996 , 12, 103-4	4.4	8
3	Use of carbohydrate-supplemented distillery spent wash as a medium for ethanol production by a thermotolerant strain of yeast at 45°C. <i>Biotechnology Letters</i> , 1996 , 10, 349		1
2	Increased efficiency of substrate utilization by exposure of the thermotolerant yeast strain, <i>Kluyveromyces marxianus</i> IMB3 to electric-field stimulation. <i>Biotechnology Letters</i> , 1995 , 9, 133		15
1	Cross-talk between m6A and m1A regulators, YTHDF2 and ALKBH3 fine-tunes mRNA expression		2