Michael J Betenbaugh

List of Publications by Year in Descending Order

256 papers	10,179 citations	54 h-index	89 g-index
270 ext. papers	11,625 ext. citations	6.4 avg, IF	6.22 L-index

#	Paper	IF	Citations
256	Epigenetic comparison of CHO hosts and clones reveals divergent methylation and transcription patterns across lineages.. *Biotechnology and Bioengineering*, **2022**,	4.9	1
255	The interplay of protein engineering and glycoengineering to fine-tune antibody glycosylation and its impact on effector functions. *Biotechnology and Bioengineering*, **2022**, 119, 102-117	4.9	2
254	Comparative systeomics to elucidate physiological differences between CHO and SP2/0 cell lines.. *Scientific Reports*, **2022**, 12, 3280	4.9	1
253	Chromosomal instability drives convergent and divergent evolution toward advantageous inherited traits in mammalian CHO bioproduction lineages.. *IScience*, **2022**, 25, 104074	6.1	1
252	Glycoengineering of Mammalian Expression Systems on a Cellular Level. *Advances in Biochemical Engineering/Biotechnology*, **2021**, 175, 37-69	1.7	10
251	Metabolic Analysis of the Asparagine and Glutamine Dynamics in an Industrial CHO Fed-Batch Process. *Biotechnology and Bioengineering*, **2021**,	4.9	1
250	A genome-scale nutrient minimization forecast algorithm for controlling essential amino acid levels in CHO cell cultures. *Biotechnology and Bioengineering*, **2021**, 119, 435	4.9	
249	Mapping the path forward to next generation algal technologies: Workshop on understanding the rules of life and complexity in algal systems. *Algal Research*, **2021**, 60, 102520	5	
248	Glycoproteomic Characterization of FUT8 Knock-Out CHO Cells Reveals Roles of FUT8 in the Glycosylation. *Frontiers in Chemistry*, **2021**, 9, 755238	5	1
247	Durable SARS-CoV-2 B cell immunity after mild or severe disease. *Journal of Clinical Investigation*, **2021**, 131,	15.9	39
246	Mechanistic and data-driven modeling of protein glycosylation. *Current Opinion in Chemical Engineering*, **2021**, 32, 100690	5.4	2
245	Elucidating the impact of cottonseed hydrolysates on CHO cell culture performance through transcriptomic analysis. *Applied Microbiology and Biotechnology*, **2021**, 105, 271-285	5.7	1
244	Sex Differences in Lung Imaging and SARS-CoV-2 Antibody Responses in a COVID-19 Golden Syrian Hamster Model. *MBio*, **2021**, 12, e0097421	7.8	22
243	A Linkage-specific Sialic Acid Labeling Strategy Reveals Different Site-specific Glycosylation Patterns in SARS-CoV-2 Spike Protein Produced in CHO and HEK Cell Substrates. *Frontiers in Chemistry*, **2021**, 9, 735558	5	5
242	Glycoengineering of Aspergillus nidulans to produce precursors for humanized N-glycan structures. *Metabolic Engineering*, **2021**, 67, 153-163	9.7	2
241	Chemical speciation of trace metals in mammalian cell culture media: looking under the hood to boost cellular performance and product quality. *Current Opinion in Biotechnology*, **2021**, 71, 216-224	11.4	0
240	Kinetic, metabolic, and statistical analytics: addressing metabolic transport limitations among organelles and microbial communities. *Current Opinion in Biotechnology*, **2021**, 71, 91-97	11.4	2

239	Redox as a bioprocess parameter: analytical redox quantification in biological therapeutic production. *Current Opinion in Biotechnology*, **2021**, 71, 49-54	11.4	0
238	Taking the pulse of bioprocesses: at-line and in-line monitoring of mammalian cell cultures. *Current Opinion in Biotechnology*, **2021**, 71, 191-197	11.4	1
237	Identification of novel inhibitory metabolites and impact verification on growth and protein synthesis in mammalian cells. *Metabolic Engineering Communications*, **2021**, 13, e00182	6.5	1
236	Examining the impact of carbon dioxide levels and modulation of resulting hydrogen peroxide in Chlorella vulgaris. *Algal Research*, **2021**, 60, 102492	5	0
235	Evidence for a mutualistic relationship between the cyanobacteria Nostoc and fungi Aspergilli in different environments. *Applied Microbiology and Biotechnology*, **2020**, 104, 6413-6426	5.7	5
234	Modeling of nitrogen fixation and polymer production in the heterotrophic diazotroph DJ. *Metabolic Engineering Communications*, **2020**, 11, e00132	6.5	9
233	Glycosylation of IgG and IgG-Like Recombinant Therapeutic Proteins: Why Is It Important and How Can We Control It?. *Annual Review of Chemical and Biomolecular Engineering*, **2020**, 11, 311-338	8.9	18
232	The importance and future of biochemical engineering. *Biotechnology and Bioengineering*, **2020**, 117, 2305-2318	4.9	7
231	One-Step Enrichment of Intact Glycopeptides From Glycoengineered Chinese Hamster Ovary Cells. *Frontiers in Chemistry*, **2020**, 8, 240	5	7
230	Sex, age, and hospitalization drive antibody responses in a COVID-19 convalescent plasma donor population. *Journal of Clinical Investigation*, **2020**, 130, 6141-6150	15.9	239
229	COVID-19 serology at population scale: SARS-CoV-2-specific antibody responses in saliva **2020**,		32
228	Durable SARS-CoV-2 B cell immunity after mild or severe disease **2020**,		5
227	Genome-scale reconstructions of the mammalian secretory pathway predict metabolic costs and limitations of protein secretion. *Nature Communications*, **2020**, 11, 68	17.4	37
226	Creating a synthetic lichen: Mutualistic co-culture of fungi and extracellular polysaccharide-secreting cyanobacterium Nostoc PCC 7413. *Algal Research*, **2020**, 45, 101755	5	9
225	Expanded Chinese hamster organ and cell line proteomics profiling reveals tissue-specific functionalities. *Scientific Reports*, **2020**, 10, 15841	4.9	4
224	Metabolic engineering challenges of extending N-glycan pathways in Chinese hamster ovary cells. *Metabolic Engineering*, **2020**, 61, 301-314	9.7	3
223	Partners for life: building microbial consortia for the future. *Current Opinion in Biotechnology*, **2020**, 66, 292-300	11.4	7
222	Synthetic microbial communities of heterotrophs and phototrophs facilitate sustainable growth. *Nature Communications*, **2020**, 11, 3803	17.4	21

221	COVID-19 Serology at Population Scale: SARS-CoV-2-Specific Antibody Responses in Saliva. *Journal of Clinical Microbiology*, **2020**, 59,	9.7	94
220	The impact of sialylation linkage-type on the pharmacokinetics of recombinant butyrylcholinesterases. *Biotechnology and Bioengineering*, **2020**, 117, 157-166	4.9	2
219	Improved protein expression in HEK293 cells by over-expressing miR-22 and knocking-out its target gene, HIPK1. *New Biotechnology*, **2020**, 54, 28-33	6.4	4
218	Utilizing genome-scale models to optimize nutrient supply for sustained algal growth and lipid productivity. *Npj Systems Biology and Applications*, **2019**, 5, 33	5	10
217	Environmental stimuli drive a transition from cooperation to competition in synthetic phototrophic communities. *Nature Microbiology*, **2019**, 4, 2184-2191	26.6	33
216	Characterization of intact glycopeptides reveals the impact of culture media on site-specific glycosylation of EPO-Fc fusion protein generated by CHO-GS cells. *Biotechnology and Bioengineering*, **2019**, 116, 2303-2315	4.9	7
215	Proteogenomic Annotation of Chinese Hamsters Reveals Extensive Novel Translation Events and Endogenous Retroviral Elements. *Journal of Proteome Research*, **2019**, 18, 2433-2445	5.6	12
214	Design and Production of Bispecific Antibodies. *Antibodies*, **2019**, 8,	7	71
213	An unconventional uptake rate objective function approach enhances applicability of genome-scale models for mammalian cells. *Npj Systems Biology and Applications*, **2019**, 5, 25	5	16
212	Combining Butyrated ManNAc with Glycoengineered CHO Cells Improves EPO Glycan Quality and Production. *Biotechnology Journal*, **2019**, 14, e1800186	5.6	15
211	Production of lipid-containing algal-bacterial polyculture in wastewater and biomethanation of lipid extracted residues: Enhancing methane yield through hydrothermal pretreatment and relieving solvent toxicity through co-digestion. *Science of the Total Environment*, **2019**, 653, 1377-1394	10.2	18
210	Antibody glycoengineering strategies in mammalian cells. *Biotechnology and Bioengineering*, **2018**, 115, 1378-1393	4.9	50
209	Butyrated ManNAc analog improves protein expression in Chinese hamster ovary cells. *Biotechnology and Bioengineering*, **2018**, 115, 1531-1541	4.9	19
208	A reference genome of the Chinese hamster based on a hybrid assembly strategy. *Biotechnology and Bioengineering*, **2018**, 115, 2087-2100	4.9	55
207	Proline-Rich Chaperones Are Compared Computationally and Experimentally for Their Abilities to Facilitate Recombinant Butyrylcholinesterase Tetramerization in CHO Cells. *Biotechnology Journal*, **2018**, 13, e1700479	5.6	6
206	Identifying HIPK1 as Target of miR-22-3p Enhancing Recombinant Protein Production From HEK 293 Cell by Using Microarray and HTP siRNA Screen. *Biotechnology Journal*, **2018**, 13, 1700342	5.6	9
205	Predicting Dynamic Metabolic Demands in the Photosynthetic Eukaryote. *Plant Physiology*, **2018**, 176, 450-462	6.6	34
204	Karyotype variation of CHO host cell lines over time in culture characterized by chromosome counting and chromosome painting. *Biotechnology and Bioengineering*, **2018**, 115, 165-173	4.9	43

203	Methods for Using Small Non-Coding RNAs to Improve Recombinant Protein Expression in Mammalian Cells. *Genes*, **2018**, 9,	4.2	7
202	Molecular Cloning and Characterization of a Novel -Amylase from Antarctic Sea Ice Bacterium sp. M175 and Its Primary Application in Detergent. *BioMed Research International*, **2018**, 2018, 3258383	3	14
201	Genome Sequence of the Oleaginous Green Alga, UTEX 395. *Frontiers in Bioengineering and Biotechnology*, **2018**, 6, 37	5.8	16
200	Anaerobic digestion restricted to phase I for nutrient release and energy production using waste-water grown Chlorella vulgaris. *Chemical Engineering Journal*, **2018**, 352, 756-764	14.7	8
199	Synergistic co-digestion of wastewater grown algae-bacteria polyculture biomass and cellulose to optimize carbon-to-nitrogen ratio and application of kinetic models to predict anaerobic digestion energy balance. *Bioresource Technology*, **2018**, 269, 210-220	11	34
198	Impact of nucleotide sugar metabolism on protein N-glycosylation in Chinese Hamster Ovary (CHO) cell culture. *Current Opinion in Chemical Engineering*, **2018**, 22, 167-176	5.4	16
197	Recombinant Antibody Production in CHO and NS0 Cells: Differences and Similarities. *BioDrugs*, **2018**, 32, 571-584	7.9	32
196	Comprehensive Glycoproteomic Analysis of Chinese Hamster Ovary Cells. *Analytical Chemistry*, **2018**, 90, 14294-14302	7.8	26
195	Metabolic engineering of CHO cells to prepare glycoproteins. *Emerging Topics in Life Sciences*, **2018**, 2, 433-442	3.5	2
194	Genome-Wide High-Throughput RNAi Screening for Identification of Genes Involved in Protein Production. *Methods in Molecular Biology*, **2018**, 1850, 209-219	1.4	3
193	Application of the CRISPR/Cas9 Gene Editing Method for Modulating Antibody Fucosylation in CHO Cells. *Methods in Molecular Biology*, **2018**, 1850, 237-257	1.4	7
192	Progressing from transient to stable packaging cell lines for continuous production of lentiviral and gammaretroviral vectors. *Current Opinion in Chemical Engineering*, **2018**, 22, 128-137	5.4	4
191	Application of C flux analysis to identify high-productivity CHO metabolic phenotypes. *Metabolic Engineering*, **2017**, 43, 218-225	9.7	35
190	Ultra-deep next generation mitochondrial genome sequencing reveals widespread heteroplasmy in Chinese hamster ovary cells. *Metabolic Engineering*, **2017**, 41, 11-22	9.7	16
189	Glycoengineering of CHO Cells to Improve Product Quality. *Methods in Molecular Biology*, **2017**, 1603, 25-44	1.4	17
188	A novel sugar analog enhances sialic acid production and biotherapeutic sialylation in CHO cells. *Biotechnology and Bioengineering*, **2017**, 114, 1899-1902	4.9	22
187	High-Throughput Lipidomic and Transcriptomic Analysis To Compare SP2/0, CHO, and HEK-293 Mammalian Cell Lines. *Analytical Chemistry*, **2017**, 89, 1477-1485	7.8	24
186	Integrated Genome and Protein Editing Swaps Ⅱ2,6 Sialylation for Ⅱ2,3 Sialic Acid on Recombinant Antibodies from CHO. *Biotechnology Journal*, **2017**, 12, 1600502	5.6	28

185	SnapShot: N-Glycosylation Processing Pathways across Kingdoms. *Cell*, **2017**, 171, 258-258.e1	56.2	41
184	Model-based analysis of N-glycosylation in Chinese hamster ovary cells. *PLoS ONE*, **2017**, 12, e0175376	3.7	25
183	Lessons from the Hamster: Cricetulus griseus Tissue and CHO Cell Line Proteome Comparison. *Journal of Proteome Research*, **2017**, 16, 3672-3687	5.6	9
182	Combinatorial genome and protein engineering yields monoclonal antibodies with hypergalactosylation from CHO cells. *Biotechnology and Bioengineering*, **2017**, 114, 2848-2856	4.9	17
181	Mimicking lichens: incorporation of yeast strains together with sucrose-secreting cyanobacteria improves survival, growth, ROS removal, and lipid production in a stable mutualistic co-culture production platform. *Biotechnology for Biofuels*, **2017**, 10, 55	7.8	44
180	Systems Glycobiology: Integrating Glycogenomics, Glycoproteomics, Glycomics, and Other Omics Data Sets to Characterize Cellular Glycosylation Processes. *Journal of Molecular Biology*, **2016**, 428, 3337-3352	6.5	31
179	A peptide-linked recombinant glucocerebrosidase for targeted neuronal delivery: Design, production, and assessment. *Journal of Biotechnology*, **2016**, 221, 1-12	3.7	19
178	Efficient lipid extraction and quantification of fatty acids from algal biomass using accelerated solvent extraction (ASE). *RSC Advances*, **2016**, 6, 29127-29134	3.7	25
177	Stable Ectopic Expression of ST6GALNAC5 Induces Autocrine MET Activation and Anchorage-Independence in MDCK Cells. *PLoS ONE*, **2016**, 11, e0148075	3.7	3
176	Optimization of One-Step In Situ Transesterification Method for Accurate Quantification of EPA in Nannochloropsis gaditana. *Applied Sciences (Switzerland)*, **2016**, 6, 343	2.6	14
175	High-throughput screening and selection of mammalian cells for enhanced protein production. *Biotechnology Journal*, **2016**, 11, 853-65	5.6	36
174	Microfluidic bubbler facilitates near complete mass transfer for sustainable multiphase and microbial processing. *Biotechnology and Bioengineering*, **2016**, 113, 1924-33	4.9	11
173	Genome-scale RNA interference screen identifies antizyme 1 (OAZ1) as a target for improvement of recombinant protein production in mammalian cells. *Biotechnology and Bioengineering*, **2016**, 113, 2403-15	4.9	15
172	Genome-Scale Metabolic Model for the Green Alga Chlorella vulgaris UTEX 395 Accurately Predicts Phenotypes under Autotrophic, Heterotrophic, and Mixotrophic Growth Conditions. *Plant Physiology*, **2016**, 172, 589-602	6.6	62
171	A Consensus Genome-scale Reconstruction of Chinese Hamster Ovary Cell Metabolism. *Cell Systems*, **2016**, 3, 434-443.e8	10.6	145
170	The non-apoptotic action of Bcl-xL: regulating Ca(2+) signaling and bioenergetics at the ER-mitochondrion interface. *Journal of Bioenergetics and Biomembranes*, **2016**, 48, 211-25	3.7	35
169	Phytoremediation of agriculture runoff by filamentous algae poly-culture for biomethane production, and nutrient recovery for secondary cultivation of lipid generating microalgae. *Bioresource Technology*, **2016**, 222, 294-308	11	40
168	Anaerobic digestion of lipid-extracted Auxenochlorella protothecoides biomass for methane generation and nutrient recovery. *Bioresource Technology*, **2015**, 183, 229-39	11	51

167	Assessment of the coordinated role of ST3GAL3, ST3GAL4 and ST3GAL6 on the α2,3 sialylation linkage of mammalian glycoproteins. *Biochemical and Biophysical Research Communications*, **2015**, 463, 211-5	3.4	30
166	A multi-pronged investigation into the effect of glucose starvation and culture duration on fed-batch CHO cell culture. *Biotechnology and Bioengineering*, **2015**, 112, 2172-84	4.9	46
165	Sequencing the CHO DXB11 genome reveals regional variations in genomic stability and haploidy. *BMC Genomics*, **2015**, 16, 160	4.5	61
164	The beta-3 adrenergic agonist (CL-316,243) restores the expression of down-regulated fatty acid oxidation genes in type 2 diabetic mice. *Nutrition and Metabolism*, **2015**, 12, 8	4.6	12
163	Elucidation of the CHO Super-Ome (CHO-SO) by Proteoinformatics. *Journal of Proteome Research*, **2015**, 14, 4687-703	5.6	29
162	Comparison of biomass and lipid production under ambient carbon dioxide vigorous aeration and 3% carbon dioxide condition among the lead candidate Chlorella strains screened by various photobioreactor scales. *Bioresource Technology*, **2015**, 198, 246-55	11	10
161	Strategies for Engineering Protein N-Glycosylation Pathways in Mammalian Cells. *Methods in Molecular Biology*, **2015**, 1321, 287-305	1.4	19
160	Pac-Man for biotechnology: co-opting degrons for targeted protein degradation to control and alter cell function. *Current Opinion in Biotechnology*, **2015**, 36, 199-204	11.4	6
159	QUANTITY: An Isobaric Tag for Quantitative Glycomics. *Scientific Reports*, **2015**, 5, 17585	4.9	54
158	Glycoengineering of Chinese hamster ovary cells for enhanced erythropoietin N-glycan branching and sialylation. *Biotechnology and Bioengineering*, **2015**, 112, 2343-51	4.9	68
157	Microalgae as a Feedstock for Biofuel Precursors and Value-Added Products: Green Fuels and Golden Opportunities. *BioResources*, **2015**, 11,	1.3	12
156	Exploiting the Molecular Genetics of Microalgae **2015**, 331-352		1
155	MiRNA mimic screen for improved expression of functional neurotensin receptor from HEK293 cells. *Biotechnology and Bioengineering*, **2015**, 112, 1632-43	4.9	16
154	Bioprospecting of microalgae for integrated biomass production and phytoremediation of unsterilized wastewater and anaerobic digestion centrate. *Applied Microbiology and Biotechnology*, **2015**, 99, 6139-54	5.7	76
153	Cellular traffic cops: the interplay between lipids and proteins regulates vesicular formation, trafficking, and signaling in mammalian cells. *Current Opinion in Biotechnology*, **2015**, 36, 215-21	11.4	8
152	Redistribution of metabolic fluxes in by variation of media nitrogen concentration. *Metabolic Engineering Communications*, **2015**, 2, 124-131	6.5	15
151	Coupling enrichment methods with proteomics for understanding and treating disease. *Proteomics - Clinical Applications*, **2015**, 9, 33-47	3.1	17
150	Proteomics in Cell Culture: From Genomics to Combined Ωmics for Cell Line Engineering and Bioprocess Development. *Cell Engineering*, **2015**, 591-614		2

149	Engineering cells to improve protein expression. *Current Opinion in Structural Biology*, **2014**, 26, 32-8	8.1	43
148	A critical analysis of paddlewheel-driven raceway ponds for algal biofuel production at commercial scales. *Algal Research*, **2014**, 4, 76-88	5	207
147	Glycoproteomic and glycomic databases. *Clinical Proteomics*, **2014**, 11, 15	5	17
146	Mineral and non-carbon nutrient utilization and recovery during sequential phototrophic-heterotrophic growth of lipid-rich algae. *Applied Microbiology and Biotechnology*, **2014**, 98, 5261-73	5.7	23
145	Accelerating genome editing in CHO cells using CRISPR Cas9 and CRISPy, a web-based target finding tool. *Biotechnology and Bioengineering*, **2014**, 111, 1604-16	4.9	137
144	Bcl-2 family in inter-organelle modulation of calcium signaling; roles in bioenergetics and cell survival. *Journal of Bioenergetics and Biomembranes*, **2014**, 46, 1-15	3.7	40
143	The effect of iron on growth, lipid accumulation, and gene expression profile of the freshwater microalga Chlorella sorokiniana. *Applied Microbiology and Biotechnology*, **2014**, 98, 9473-81	5.7	51
142	Exploiting the proteomics revolution in biotechnology: from disease and antibody targets to optimizing bioprocess development. *Current Opinion in Biotechnology*, **2014**, 30, 80-6	11.4	14
141	The impact of anti-apoptotic gene Bcl-2 expression on CHO central metabolism. *Metabolic Engineering*, **2014**, 25, 92-102	9.7	37
140	Physiologic and pathophysiologic consequences of altered sialylation and glycosylation on ion channel function. *Biochemical and Biophysical Research Communications*, **2014**, 453, 243-53	3.4	39
139	Mixed Trophic State Production Process for Microalgal Biomass with High Lipid Content for Generating Biodiesel and Biogas. *Bioenergy Research*, **2014**, 7, 1174-1185	3.1	37
138	The effects of alternative pretreatment strategies on anaerobic digestion and methane production from different algal strains. *Bioresource Technology*, **2014**, 155, 366-72	11	105
137	Multi-tissue computational modeling analyzes pathophysiology of type 2 diabetes in MKR mice. *PLoS ONE*, **2014**, 9, e102319	3.7	10
136	Comparative analyses of three Chlorella species in response to light and sugar reveal distinctive lipid accumulation patterns in the Microalga C. sorokiniana. *PLoS ONE*, **2014**, 9, e92460	3.7	91
135	4.1 Control of Biotheraputics Glycosylation **2014**, 247-279		
134	Harnessing Chinese hamster ovary cell proteomics for biopharmaceutical processing. *Pharmaceutical Bioprocessing*, **2014**, 2, 421-435		3
133	Enhanced transient recombinant protein production in CHO cells through the co-transfection of the product gene with Bcl-xL. *Biotechnology Journal*, **2014**, 9, 1164-74	5.6	23
132	N-Acetylneuraminic Acid Synthase (NANS) **2014**, 1523-1536		

131	Genomic landscapes of Chinese hamster ovary cell lines as revealed by the Cricetulus griseus draft genome. *Nature Biotechnology*, **2013**, 31, 759-65	44.5	289
130	Tat-tetanus toxin fragment C: a novel protein delivery vector and its use with photochemical internalization. *Journal of Drug Targeting*, **2013**, 21, 662-74	5.4	6
129	Stable inhibition of mmu-miR-466h-5p improves apoptosis resistance and protein production in CHO cells. *Metabolic Engineering*, **2013**, 16, 87-94	9.7	63
128	Achieving high throughput sequencing of a cDNA library utilizing an alternative protocol for the bench top next-generation sequencing system. *Journal of Microbiological Methods*, **2013**, 92, 122-6	2.8	2
127	Large-scale screening identifies a novel microRNA, miR-15a-3p, which induces apoptosis in human cancer cell lines. *RNA Biology*, **2013**, 10, 287-300	4.8	37
126	The emerging CHO systems biology era: harnessing the Omics revolution for biotechnology. *Current Opinion in Biotechnology*, **2013**, 24, 1102-7	11.4	138
125	Integration of the transcriptome and glycome for identification of glycan cell signatures. *PLoS Computational Biology*, **2013**, 9, e1002813	5	51
124	Transient and stable expression of the neurotensin receptor NTS1: a comparison of the baculovirus-insect cell and the T-REx-293 expression systems. *PLoS ONE*, **2013**, 8, e63679	3.7	11
123	Early prediction of instability of Chinese hamster ovary cell lines expressing recombinant antibodies and antibody-fusion proteins. *Biotechnology and Bioengineering*, **2012**, 109, 1016-30	4.9	55
122	Proteomic analysis of Chinese hamster ovary cells. *Journal of Proteome Research*, **2012**, 11, 5265-76	5.6	128
121	Increased expression of the integral membrane proteins EGFR and FGFR3 in anti-apoptotic Chinese hamster ovary cell lines. *Biotechnology and Applied Biochemistry*, **2012**, 59, 155-62	2.8	7
120	Chinese hamster genome database: an online resource for the CHO community at www.CHOgenome.org. *Biotechnology and Bioengineering*, **2012**, 109, 1353-6	4.9	64
119	Physiological evaluation of a new Chlorella sorokiniana isolate for its biomass production and lipid accumulation in photoautotrophic and heterotrophic cultures. *Biotechnology and Bioengineering*, **2012**, 109, 1958-64	4.9	54
118	Directed evolution of mammalian anti-apoptosis proteins by somatic hypermutation. *Protein Engineering, Design and Selection*, **2012**, 25, 27-38	1.9	8
117	Glucose depletion activates mmu-miR-466h-5p expression through oxidative stress and inhibition of histone deacetylation. *Nucleic Acids Research*, **2012**, 40, 7291-302	20.1	69
116	Controlling apoptosis to optimize yields of proteins from mammalian cells. *Methods in Molecular Biology*, **2012**, 801, 111-23	1.4	1
115	MicroRNAs as Engineering Targets: Pathway Manipulation to Impact Bioprocess Phenotypes **2012**, 65-85		
114	Cellular trafficking and photochemical internalization of cell penetrating peptide linked cargo proteins: a dual fluorescent labeling study. *Bioconjugate Chemistry*, **2011**, 22, 556-66	6.3	40

113	The genomic sequence of the Chinese hamster ovary (CHO)-K1 cell line. *Nature Biotechnology*, **2011**, 29, 735-41	44.5	584
112	Membrane Protein Expression in Mammalian Cells **2011**, 139-165		
111	Microalgal biomass production and carbon dioxide sequestration from an integrated ethanol biorefinery in Iowa: A technical appraisal and economic feasibility evaluation. *Biomass and Bioenergy*, **2011**, 35, 3865-3876	5.3	105
110	An improved colony PCR procedure for genetic screening of Chlorella and related microalgae. *Biotechnology Letters*, **2011**, 33, 1615-9	3	35
109	Antigen retrieval to improve the immunocytochemistry detection of sigma-1 receptors and ER chaperones. *Histochemistry and Cell Biology*, **2011**, 135, 627-37	2.4	15
108	The effect of mixotrophy on microalgal growth, lipid content, and expression levels of three pathway genes in Chlorella sorokiniana. *Applied Microbiology and Biotechnology*, **2011**, 91, 835-44	5.7	217
107	Measurement of sialic acid content on recombinant membrane proteins. *BMC Proceedings*, **2011**, 5 Suppl 8, P59	2.3	
106	A novel microRNA mmu-miR-466h affects apoptosis regulation in mammalian cells. *Biotechnology and Bioengineering*, **2011**, 108, 1651-61	4.9	71
105	DmSAS is required for sialic acid biosynthesis in cultured Drosophila third instar larvae CNS neurons. *ACS Chemical Biology*, **2011**, 6, 1287-95	4.9	13
104	GlycoFly: a database of Drosophila N-linked glycoproteins identified using SPEG--MS techniques. *Journal of Proteome Research*, **2011**, 10, 2777-84	5.6	24
103	GlycoFish: a database of zebrafish N-linked glycoproteins identified using SPEG method coupled with LC/MS. *Analytical Chemistry*, **2011**, 83, 5296-303	7.8	22
102	Proliferation and pluripotency of human embryonic stem cells maintained on type I collagen. *Stem Cells and Development*, **2010**, 19, 1923-35	4.4	19
101	Analysis and metabolic engineering of lipid-linked oligosaccharides in glycosylation-deficient CHO cells. *Biochemical and Biophysical Research Communications*, **2010**, 395, 36-41	3.4	5
100	Production and antigenic properties of influenza virus from suspension MDCK-siat7e cells in a bench-scale bioreactor. *Vaccine*, **2010**, 28, 7193-201	4.1	11
99	Combining high-throughput screening of caspase activity with anti-apoptosis genes for development of robust CHO production cell lines. *Biotechnology Progress*, **2010**, 26, 1367-81	2.8	20
98	Transcriptome and proteome analysis of Chinese hamster ovary cells under low temperature and butyrate treatment. *Journal of Biotechnology*, **2010**, 145, 143-59	3.7	124
97	Conversion of MDCK cell line to suspension culture by transfecting with human siat7e gene and its application for influenza virus production. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 14802-7	11.5	53
96	A mathematical model to derive N-glycan structures and cellular enzyme activities from mass spectrometric data. *Glycobiology*, **2009**, 19, 1163-75	5.8	72

95	Expression of anti-apoptosis genes alters lactate metabolism of Chinese Hamster Ovary cells in culture. *Biotechnology and Bioengineering*, **2009**, 103, 592-608	4.9	75
94	Mcl-1 overexpression leads to higher viabilities and increased production of humanized monoclonal antibody in Chinese hamster ovary cells. *Biotechnology Progress*, **2009**, 25, 1161-8	2.8	46
93	An HPLC-MALDI MS method for N-glycan analyses using smaller size samples: application to monitor glycan modulation by medium conditions. *Glycoconjugate Journal*, **2009**, 26, 1135-49	3	25
92	Protein and genome evolution in Mammalian cells for biotechnology applications. *Molecular Biotechnology*, **2009**, 42, 216-23	3	14
91	Glycoengineering and Modeling of Protein N-Glycosylation. *Cell Engineering*, **2009**, 217-231		
90	Structure and synthesis of polyisoprenoids used in N-glycosylation across the three domains of life. *Biochimica Et Biophysica Acta - General Subjects*, **2009**, 1790, 485-94	4	57
89	An improved in vitro and in vivo Sindbis virus expression system through host and virus engineering. *Virus Research*, **2009**, 141, 1-12	6.4	12
88	Increased expression of the integral membrane protein ErbB2 in Chinese hamster ovary cells expressing the anti-apoptotic gene Bcl-xL. *Protein Expression and Purification*, **2009**, 67, 41-7	2	12
87	False positive reactivity of recombinant, diagnostic, glycoproteins produced in High Five insect cells: effect of glycosylation. *Journal of Immunological Methods*, **2008**, 330, 130-6	2.5	34
86	Feast or famine: autophagy control and engineering in eukaryotic cell culture. *Current Opinion in Biotechnology*, **2008**, 19, 518-26	11.4	29
85	A green light for engineered algae: redirecting metabolism to fuel a biotechnology revolution. *Current Opinion in Biotechnology*, **2008**, 19, 430-6	11.4	449
84	Cells by design: a mini-review of targeting cell engineering using DNA microarrays. *Molecular Biotechnology*, **2008**, 39, 105-11	3	10
83	Egr1 and Gas6 facilitate the adaptation of HEK-293 cells to serum-free media by conferring enhanced viability and higher growth rates. *Biotechnology and Bioengineering*, **2008**, 99, 1443-52	4.9	13
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