

CURRICULUM VITAE - HENRY MARK JOHNSTON

Date: 1 November 2021

Date of Birth: December 20, 1951

Place of Birth: Stevens Point, Wisconsin

Citizenship: USA

Office Address: Department of Biochemistry and Molecular Genetics
University of Colorado School of Medicine
Mail Stop 8101, P.O. Box 6511
Aurora, CO 80045

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3352 Xenia St.
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Education:

- 1974 Bachelor of Arts, University of Wisconsin, Madison. Field of Study: Molecular Biology
Thesis: Genetics of Nitrogenase of K. pneumoniae; Mentor: Winston Brill
- 1980 Doctor of Philosophy, University of California, Berkeley. Field of Study: Mol. Biology
Thesis: Regulation of the his Operon of S. typhimurium; Mentor: John Roth
- 1980-83 Postdoctoral Fellow, Department of Biochemistry, Stanford University School of Medicine
Research: Molecular genetics of yeast *GAL* genes; Mentor: Ronald Davis

Academic Positions:

- 2019 - Professor Emeritus
Department of Biochemistry and Molecular Genetics
University of Colorado-Denver
- 2009 - 2019 Professor and Chair
Department of Biochemistry and Molecular Genetics
University of Colorado-Denver
- 1983 - 2008 Assistant, Associate, Professor of Genetics
Department of Genetics
Washington University School of Medicine

Honors and Awards:

- 2012 Elected to the American Academy of Arts and Sciences
- 2008 George W. Beadle Award, Genetics Society of America (see PMID: 18385105)
- 2006 Fellow, American Association for the Advancement of Science
- 2004 "B" Flight Champion, Gateway National Golf Links, Madison, IL
- 2002 Mid-career award, Yeast Genetics & Molecular Biology Meeting
- 1998 Fellow, American Academy of Microbiology
- 1985 - 1990 Established Investigator, American Heart Association
- 1981 - 1983 Postdoctoral Fellowship, National Institutes of Health
- 1980 - 1981 Postdoctoral Fellowship, National Science Foundation

Professional Service:

- 2016 – 2020 Member, National Advisory Council, National Human Genome Research Institute (NHGRI)
2015 – 2018 Member, Committee on Membership, American Academy of Arts and Sciences
(Chair of Class II, Biological Sciences)
2003 - 2005 President (2004), (Vice President, Past President), Genetics Society of America
2000 - 2002 Member, Scientific Advisory Board, Paradigm Genetics, Inc, RTP, NC
1998 - 2002 Member, Advisory Board, *Saccharomyces* Genome Database
1996 - 1998 Member, Scientific Advisory Board, Acacia Biosciences, Richmond, CA
1996 - 1998 Co-chairman, Yeast Genetics and Molecular Biology International Meeting
1995 - 1999 Member, NIH Microbial Physiology and Genetics I Study Section
1990 – 2011 *ad hoc* member, ~ 6 NIH Study Sections

Editorial Service:

- 2009 - 2021 Editor-in-Chief, *GENETICS*
2003 - 2005 Communicating Editor, *Molecular Genetics and Genomics*
2001 - 2003 Editorial Board, *Eukaryotic Cell*
2000 - 2015 Editorial Board, *Yeast*
1995 - 2002 Editorial Board, *Genome Research*
1992 - 2008 Associate Editor, *GENETICS*
1989 – 2000 Editorial Board, *Molecular & Cellular Biology*

Funding History:

- 1983 – 2018 National Institutes of Health #2 RO1 GM32540; **P.I. Mark Johnston**
Title: Glucose Sensing and Signaling in Yeast
Total Direct Costs 2014-2018: \$751,000
- 2012 – 2015 National Institutes of Health R01GM100452; P.I. Michael Brent
Title: Linking Gene Regulation to Metabolism
Total Direct Costs to MJ: \$46,000
- 2007 – 2009 National Institutes of Health #1 R21 RR023960; **P.I. Mark Johnston**
Title: “Calling Cards” for DNA-binding proteins
Total Direct Costs: \$275,000
- 2007 – 2011 National Institutes of Health #1 R01 GM078222; P.I. Gary Stormo
Title: Deciphering the regulatory code of a cell
Total Direct Costs to MJ: ~\$100,000/year
- 2004 - 2008 St. Louis University (National Institutes of Health) #5 R01 GM069905; P.I. Ali Shilati
Title: Chromatin Modification by Histone Ubiquitination
Total Direct Costs to MJ: ~\$80,000/year
- 2001 - 2005 National Institutes of Health #1 RO1 GM63803; **P.I. Mark Johnston**
Title: Comparative DNA sequence analysis of the yeast genome
Total Direct Costs 2001-2005: \$1,126,639
- 1997 - 2000 National Institutes of Health #5 R01 HG0162702; **P.I. Mark Johnston**
Title: Generation of the Complete Set of Yeast Gene Disruptions
Total Direct Costs: \$1,961,396
- 1993 - 1998 National Institutes of Health #1 P01 HG00956; P.I. Robert Waterston
Title: Large Scale Genome Sequencing
Total Direct Costs to MJ (Project 2) - \$424,330

PUBLICATIONS

1. St. John RT, **JOHNSTON HM**, Seidman C, Garfinkel D, Gordon JK, Shah VK, Brill WJ: Biochemistry and genetics of *Klebsiella pneumoniae* strains unable to fix N₂. **J. Bacteriol.** 1975; 121:759-767. PMID: 1090602; PMCID: PMC246000
2. Hoppe I, **JOHNSTON HM**, Biek D, Roth JR: A refined map of the *hisG* gene of *S.typhimurium*. **Genetics** 1979; 92:20-32. PMID: 387517; PMCID: PMC1213939
3. **JOHNSTON HM** and Roth JR: Histidine mutants requiring adenine: Selection of mutants with reduced *hisG* expression in *Salmonella typhimurium*. **Genetics** 1979; 92:1-15. PMID: 387516; PMCID: PMC1213934
4. **JOHNSTON HM** and Roth JR: UGA suppressor that maps within a cluster of ribosomal protein genes. **J. Bacteriol.** 1980; 144:300-305. PMID: 6998953; PMCID: PMC294643
5. **JOHNSTON H**, Barnes WM, Chumley FG, Bossi L, Roth J: The Mechanism for regulation of the histidine operon of *Salmonella typhimurium*. **Proc. Natl. Acad. Sci. USA.** 1980; 77:508-512. (Reprinted in The Operon, Miller and Reznikoff, eds., Cold Spring Harbor Press). PMID: 6987654; PMCID: PMC348301
6. **JOHNSTON HM** and Roth JR: Genetic analysis of the histidine operon control region of *Salmonella typhimurium*. **J. Mol. Biol.** 1981; 145:713-734. PMID: 7021855
7. **JOHNSTON HM** and Roth JR: DNA sequence changes of mutations altering attenuation control of the histidine operon of *Salmonella typhimurium*. **J. Mol. Biol.** 1981; 145:735-756. PMID: 6167727
8. **JOHNSTON M** and Davis RW: Sequences that regulate the divergent *GAL1-GAL10* promoter in *Saccharomyces cerevisiae*. **Mol. Cell. Biol.** 1984; 4:1440-1448. PMID: 6092912; PMCID: PMC368932
9. Yocum RR and **JOHNSTON M**: Molecular cloning of the *GAL80* gene from *Saccharomyces cerevisiae* and characterization of a *gal80* deletion. **Gene** 1984; 2:75-82. PMID: 6397403
10. **JOHNSTON M** and Dover J: Mutations that inactivate a yeast transcriptional regulatory protein cluster in an evolutionarily conserved DNA binding domain. **Proc. Natl. Acad. Sci. USA.** 1987; 84:2401-2405. PMID: 3550810; PMCID: PMC304659
11. **JOHNSTON M**: Genetic evidence that zinc is an essential co-factor in the DNA binding domain of GAL4 protein. **Nature** 1987; 328:353-355. PMID: 3299106
12. Orser CS, Goodner BW, **JOHNSTON M**, Gelvin SB, Csonka LN: The *Escherichia coli proB* gene corrects the proline auxotrophy of *Saccharomyces cerevisiae pro1* mutants. **Mol. Gen. Genet.** 1988; 212:124-128. PMID: 2836700

13. **JOHNSTON M** and Dover J: Mutational analysis of the *gal4*-encoded transcriptional regulatory protein of *Saccharomyces cerevisiae*.
Genetics 1988; 120:63-74. PMID: 3065140; PMCID: PMC1203506
14. Hovland P, Flick J, **JOHNSTON M**, Sclafani RA: Galactose as a gratuitous inducer of *GAL* gene expression in yeasts growing on glucose.
Gene 1989; 83:57-64. PMID: 2512199
15. Mylin LM, **JOHNSTON M**, Hopper J: Phosphorylated forms of GAL4 are correlated with ability to activate transcription.
Mol. Cell. Biol. 1990; 10:4623-4629. PMID: 2201897; PMCID: PMC361051
16. Flick J and **JOHNSTON M**: Two systems of glucose repression of the *GALI* promoter in *S. cerevisiae*.
Mol. Cell. Biol. 1990; 10:4757-4769. PMID: 2201902; PMCID: PMC361077
17. Nogae I and **JOHNSTON M**: Isolation and characterization of the *ZWF1* gene encoding glucose-6-phosphate dehydrogenase of *Saccharomyces cerevisiae*.
Gene 1990; 96:161-169. PMID: 2269430
18. Wilson TE, Fahrner TJ, **JOHNSTON M**, Milbrandt J: Identification of the DNA binding site of NGFI-B using genetic selection in yeast.
Science 1991; 252:1297-1300. PMID: 1925541
19. Griggs D and **JOHNSTON M**: Regulated expression of the GAL4 transcriptional activator provides a sensitive genetic switch for glucose repression in yeast.
Proc. Nat. Acad. Sci. USA . 1991; 88:8597-8601. PMID: 1924319; PMCID: PMC52556
20. Flick J and **JOHNSTON M**: *GRR1* of *S. cerevisiae* is required for glucose repression and encodes a protein with leucine-rich repeats.
Mol. Cell. Biol. 1991; 11:5101-5112. PMID: 1922034; PMCID: PMC361523
21. Flick J and **JOHNSTON M**: Analysis of URS_G -mediated glucose repression of the *GALI* promoter of *Saccharomyces cerevisiae*.
GENETICS 1992; 130:295-304. PMID: 1541392; PMCID: PMC1204850
22. Wilson TE, Day ML, Pexton T, Padgett KA, **JOHNSTON M**, Milbrandt J: *In Vivo* Mutational Analysis of the NGFI-A Zinc Fingers.
J. Biol. Chem. 1992; 267:3718-3724. PMID: 1740423
23. Erickson JR and **JOHNSTON M**: Direct cloning of yeast genes from an ordered set of lambda clones in *Saccharomyces cerevisiae* by recombination *in vivo*.
Genetics 1992; 134:151-157. PMID: 8514124; PMCID: PMC1205418
24. Griggs D and **JOHNSTON M**: Promoter elements determining weak expression of the *GAL4* regulatory gene of *Saccharomyces cerevisiae*.
Mol. Cell. Biol. 1993; 13: 4999-5009. PMID: 8393142; PMCID: PMC360147
25. Erickson JR and **JOHNSTON M**: Genetic and molecular characterization of *GAL83*: Its interaction and similarities with other genes involved in glucose repression in *Saccharomyces cerevisiae*.
Genetics 1993; 135:655-664. PMID: 8293971; PMCID: PMC1205710

26. Wilson TE, Padgett KA, **JOHNSTON M**, Milbrandt J: A genetic method for defining DNA binding domains: Application to the Nuclear Receptor NGFI-B.
Proc. Nat. Acad. Sci. USA. 1993; 90:9186-9190. PMID: 8415675; PMCID: PMC47527
27. Liu J, Wilson TE, Milbrandt J, **JOHNSTON M**: Identifying DNA -binding sites and analyzing DNA-binding domains using a yeast selection system.
Methods 1993; 5:125-137.
28. Erickson JR and **JOHNSTON M**: Suppressors reveal two classes of glucose repression genes in the yeast *Saccharomyces cerevisiae*.
Genetics 1994; 136:1271-1278. PMID: 8013904; PMCID: PMC1205907
29. **JOHNSTON M**, Flick JS, Pexton T: Multiple mechanisms provide rapid and stringent glucose repression of *GAL* gene expression in *Saccharomyces cerevisiae*.
Mol. Cell. Biol. 1994; 14:3834-3841. PMID: 8196626; PMCID: PMC358750
30. **JOHNSTON M** and 34 others. Complete nucleotide sequence of *Saccharomyces cerevisiae* chromosome VIII.
Science 1994; 265:2077-2082. PMID: 8091229
31. Hull MW, Erickson J, **JOHNSTON M**, Engelke DR: tRNA Genes as Transcriptional Repressor Elements.
Mol. Cell. Biol. 1994; 14:1266-1277. PMID: 8289806; PMCID: PMC358482
32. Özcan S and **JOHNSTON M**: Three different regulatory mechanisms enable yeast hexose transporter (HXT) genes to be induced by different levels of glucose.
Mol. Cell. Biol. 1995; 15:1564-1572. PMID: 7862149; PMCID: PMC230380
33. Hamer L, **JOHNSTON M**, Green ED: Isolation of yeast artificial chromosomes free of endogenous yeast chromosomes: construction of alternate hosts with defined karyotypic alterations.
Proc. Nat. Acad. Sci. USA. 1995; 92:11706-11710. PMID: 8524833; PMCID: PMC40471
34. Niedenthal RK, Riles L, **JOHNSTON M**, Hegemann JH: Green Fluorescent Protein as a Marker for Gene Expression and Subcellular Localization in Budding Yeast.
Yeast 1996; 12:773-786. PMID: 8813764
35. Lutfiyya, LL and **JOHNSTON M**: Two Zinc-Finger-Containing Repressors are Responsible for Glucose Repression of *SUC2* Expression.
Mol. Cell. Biol. 1996; 16:4790-4797. PMID: 8756637; PMCID: PMC231480
36. Özcan S, Leong T, **JOHNSTON M**: Rgt1p of *S. cerevisiae*, a key regulator of glucose-induced genes, is both an activator and repressor of transcription.
Mol. Cell. Biol. 1996; 16:6419-6426. PMID: 8887670; PMCID: PMC231643
37. Özcan S, Dover J, Rosenwald AG, Woelfl S, **JOHNSTON M**: Two glucose transporters in *Saccharomyces cerevisiae* are glucose sensors that generate a signal for induction of gene expression.
Proc. Nat. Acad. Sci. USA. 1996; 93:12428-12432. PMID: 8901598; PMCID: PMC38008
38. Özcan S and **JOHNSTON M**: Two different repressors collaborate to restrict expression of yeast glucose transporter genes *HXT2* and *HXT4* to low levels of glucose.
Mol. Cell. Biol. 1996; 16:5536-5545. PMID: 8816466; PMCID: PMC231553

39. Özcan S, Vallier LG, Flick JS, Carlson M, **JOHNSTON M**: Expression of the *SUC2* gene of *Saccharomyces cerevisiae* is inducible by low levels of glucose.
Yeast 1996; 13:127-137. PMID: 9046094
40. **JOHNSTON M** and 56 others. The nucleotide sequence of *Saccharomyces cerevisiae* chromosome XII.
Nature 1997; 387:87-90. PMID: 9169871
41. Li F, and **JOHNSTON M**: Grr1 of *Saccharomyces cerevisiae* is connected to the ubiquitin proteolysis machinery through Skp1: coupling glucose sensing to gene expression and the cell cycle.
EMBO J. 1997; 6:101-110. PMID: 9312022; PMCID: PMC1170195
42. DeVit M, Waddle J, and **JOHNSTON M**: Regulated nuclear translocation of the Mig1 glucose repressor.
Mol. Biol. of the Cell 1997; 8:1603-1618. PMID: 9285828; PMCID: PMC276179
43. Ozcan S, Dover J, and **JOHNSTON M**: Glucose sensing and signaling by two glucose receptors in the yeast *Saccharomyces cerevisiae*.
EMBO J. 1998; 17:2566-2573. PMID: 9564039; PMCID: PMC1170598
44. Lutfiyya L, Iyer V R, DeRisi J, DeVit M, Brown P, and **JOHNSTON M**: Characterization of Three Related Glucose Repressors and Genes They Regulate in *Saccharomyces cerevisiae*.
Genetics 1998; 150:1377-1391. PMID: 9832517; PMCID: PMC1460414
45. Frolova E, **JOHNSTON M**, and Majors, J: Binding of the glucose-dependent Mig1p repressor to the GAL1 and GAL4 promoters in vivo: regulation by glucose and chromatin structure.
Nuc. Acids Res. 1999; 27(5):1350-1358. PMID: 9973625
46. DeVit MJ and **JOHNSTON M**: The nuclear exportin Msn5 is required for nuclear export of the Mig1 glucose repressor of *Saccharomyces cerevisiae*.
Curr. Biol. 1999; 9:1231-1241. PMID: 10556086
47. Winzeler, EA, 49 others, **JOHNSTON M**, and Davis, RW: Functional characterization of the *S. cerevisiae* genome by gene deletion and parallel analysis.
Science 1999; 285:793-972. PMID: 10436161
48. Niedenthal, R, Riles, L, Güldener, U, Klein, S, **JOHNSTON, M** and Hegemann JH: Systematic analysis of *S. cerevisiae* Chromosome VIII genes.
Yeast 1999; 15:1775-1796. PMID: 10590466
49. Uetz, P, Cagney G, Mansfield TA, Judson RS, Knight JkR, Lockshon D, Narayan V, Srinivasan M, Pochart P, Qureshi-Emili A, Li Y, Godwin B, Conover D, Kalbfleisch T, Vijayadamodar G, Yang M, **JOHNSTON M**, Fields S, and Rothberg JM: A comprehensive analysis of protein-protein interactions in *Saccharomyces cerevisiae*.
Nature 2000; 403:623-627. PMID: 10688190
50. Ostergaard S, Olsson L, **JOHNSTON M**, Nielsen J: Increasing galactose consumption by *Saccharomyces cerevisiae* through metabolic engineering of the *GAL* gene regulatory network.
Nature Biotech. 2000; 18:1283-1286. PMID: 11101808

51. Cliften PF, Hillier LW, Fulton L, Graves T, Miner T, Gish WR, Waterston RH, **JOHNSTON M**: Surveying *Saccharomyces* genomes to identify functional elements by comparative DNA sequence analysis.
Genome Res. 2001; 11:1175-1186. PMID: 11435399
52. Miller T, Krogan NJ, Dover J, Erdjument-Bromage H, Tempst P, **JOHNSTON M**, Greenblatt JF, Shilatifard A: COMPASS: a complex of proteins associated with a trithorax-related SET domain protein.
Proc Natl Acad Sci. USA. 2001; 98:12902-7. PMID: 11687631; PMCID: PMC60797
53. Krogan N, Dover J, Khorrani S, Greenblatt JF, Schneider J, **JOHNSTON M**, Shilatifard A: COMPASS: a histone H3 (Lysine 4) methyltransferase required for telomeric silencing of gene expression.
J. Biol. Chem. 2002; 277:10753-5. PMID: 11805083
54. Dover J, Schneider J, Tawiah-Boateng MA, Wood A, Dean K, **JOHNSTON M**, Shilatifard A: Methylation of Histone H3 by COMPASS Requires Ubiquitination of Histone H2B by Rad6.
J. Biol. Chem. 2002; 277:28368-71. PMID: 12070136
55. Giaever G, 72 others, **JOHNSTON M**: Functional Profiling of the *S. cerevisiae* Genome.
Nature 2002; 418:387-391. PMID: 12140549
56. Chen CN, Porubleva L, Shearer G, Svrakic M, Holden LG, Dover JL, **JOHNSTON M**, Chitnis PR, Kohl DH: Associating protein activities with their genes: rapid identification of a gene encoding a methylglyoxal reductase in the yeast *Saccharomyces cerevisiae*.
Yeast 2003; 20:545-54. PMID: 12722185
57. Krogan NJ, Dover J, Wood A, Schneider J, Heidt J, Boateng MA, Dean K, Ryan OW, Golshani A, **JOHNSTON M**, Greenblatt JF, Shilatifard A: The Paf1 Complex Is Required for Histone H3 Methylation by COMPASS and Dot1p. Linking Transcriptional Elongation to Histone Methylation.
Mol. Cell 2003; 11:721-9. PMID: 12667454
58. Langkjaer RB, Cliften PF, **JOHNSTON M**, Piskur J: Yeast genome duplication was followed by asynchronous differentiation of duplicated genes.
Nature 2003; 421:848-52. PMID: 12594514
59. Landry J, Sutton A, Hesman T, Min J, Xu RM, **JOHNSTON M**, Sternglanz R: Set2-catalyzed methylation of histone H3 represses basal expression of GAL4 in *Saccharomyces cerevisiae*.
Mol. Cell. Biol 2003; 23:5972-8 PMID: 12917322; PMCID: PMC180946
60. Wood A, Krogan NJ, Dover J, Schneider J, Heidt J, Boateng MA, Dean K, Golshani A, Zhang Y, Greenblatt JF, **JOHNSTON M**, Shilatifard A: Bre1, an E3 ubiquitin ligase required for recruitment and substrate selection of Rad6 at a promoter.
Mol. Cell. 2003; 11:267-74. PMID: 12535539
61. Cliften P, Sudarsanam P, Desikan A, Fulton L, Fulton B, Majors J, Waterston R, Cohen BA, **JOHNSTON M**: Finding Functional Features in *Saccharomyces* Genomes by Phylogenetic Footprinting,
Science 2003; 301:71-76. PMID: 12775844

62. Kim J-H, Polish J and **JOHNSTON M**: Specificity and Regulation of DNA-binding by the Yeast. Glucose Transporter Gene Repressor Rgt1.
Mol. Cell. Biol. 2003; 23:5208–5216. PMID: 12861007; PMCID: PMC165726
63. Riles L, Shaw RJ, **JOHNSTON M**, Reines D: Large-scale screening of yeast mutants for sensitivity to the IMP dehydrogenase inhibitor 6-azauracil.
Yeast 2004; 21(3): 241-8. PMID: 14968429
64. Kaniak A, Xue Z, Macool D, Kim JH, **JOHNSTON M**: Regulatory network connecting two glucose signal transduction pathways in *Saccharomyces cerevisiae*.
Eukaryotic Cell 2004; 3(1):221-31. PMID: 14871952; PMCID: PMC329515
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Proc. Natl. Acad. Sci. USA. 2004; Feb 10; 101(6):1572-7. PMID: 14755054; PMCID: PMC341776
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Genetics 2005; 169(2):583-594. PMID: 15489524; PMCID: PMC1449106
67. Kim J-H, Brachet V, Moriya H, and **JOHNSTON M**: Integration of transcriptional and post-translational regulation in a glucose signal transduction pathway in *Saccharomyces cerevisiae*.
Eukaryotic Cell 2006; 5:167-73. PMID: 16400179; PMCID: PMC1360249
68. Cliften PF, Fulton RS, Wilson RK, and **JOHNSTON M**: After the duplication: gene loss and adaptation in *Saccharomyces* genomes.
Genetics 2006; 172:863-872. PMID: 16322519; PMCID: PMC1456250
69. Ho S-W, Jona G, Chen CT, **JOHNSTON M**, Snyder M: Linking DNA-binding proteins to their recognition sequences by using protein microarrays.
Proc Natl Acad Sci U S A. 2006; 103:9940-5. PMID: 16785442; PMCID: PMC1502558
70. Brown V, Sexton JA, **JOHNSTON M**: A glucose sensor in *Candida albicans*.
Eukaryot Cell. 2006; 5:1726-37. PMID: 17030998; PMCID: PMC1595344
71. Kim J-H, **JOHNSTON M**: Two glucose-sensing pathways converge on Rgt1 to regulate expression of glucose transporter genes in *Saccharomyces cerevisiae*.
J Biol Chem. 2006; 281:26144-9. PMID: 16844691
72. Wang H, **JOHNSTON M**, Mitra RD: Calling Cards for DNA-binding Proteins.
Genome Res. 2007; 17:1202-1209. PMID: 17623806; PMCID: PMC1933518
73. Sexton J, Brown V, **JOHNSTON M**: Regulation of sugar transport and metabolism by the *Candida albicans* Rgt1 transcriptional repressor.
Yeast. 2007; 24:847-60. PMID: 17605131
74. Wang H, Heinz ME, Crosby SD, **JOHNSTON M**, Mitra RD: 'Calling Cards' method for high-throughput identification of targets of yeast DNA-binding proteins.
Nat Protoc. 2008; 3:1569-77. PMID: 18802438
75. Brown V, Sabina J, **JOHNSTON M**: Specialized Sugar Sensing in Diverse Fungi.
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J. Biol. Chem. 2009; 284:29635-43. PMID: 19720826
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78. Souciet JL, Dujon B, Gaillardin C, **JOHNSTON M**, Baret PV, Cliften P, Sherman DJ, Weissenbach J, Westhof E, Wincker P, Jubin C, Poulain J, Barbe V, Segurence B, Artiguenave F, Anthouard V, Vacherie B, Val ME, Fulton RS, Minx P, Wilson R, Durrens P, Jean G, Marck C, Martin T, Nikolski M, Rolland T, Seret ML, Casaregola S, Despons L, Fairhead C, Fischer G, Lafontaine I, Leh V, Lemaire M, de Montigny J, Neuvéglise C, Thierry A, Blanc-Lenfle I, Bleykasten C, Diffels J, Fritsch E, Frangeul L, Goeffon A, Jauniaux N, Kachouri-Lafond R, Payen C, Potier S, Pribylova L, Ozanne C, Richard GF, Sacerdot C, Straub ML, Talla E. Comparative genomics of protoploid Saccharomycetaceae. **Genome Res.** 2009; 19:1696-709 PMID: 19525356
79. Schulze JM, Jackson J, Nakanishi S, Gardner JM, Hentrich T, Haug J, **JOHNSTON M**, Jaspersen SL, Kobor MS, Shilatifard A: Linking Cell Cycle to Histone Modifications: SBF and H2B Monoubiquitination Machinery and Cell-Cycle Regulation of H3K79 Dimethylation. **Mol Cell.** 2009; 35:626-41 PMID: 19682934
80. Gibbons JG, Janson EM, Hittinger CT, **JOHNSTON M**, Abbot P, Rokas A: Benchmarking next-generation transcriptome sequencing for functional and evolutionary genomics. **Mol. Biol. Evol.** 2009; 26:2731-44 PMID: 19706727
81. Hittinger CT, Gonçalves P, Sampaio JP, Dover J, **JOHNSTON M**, Rokas A. Remarkably ancient balanced polymorphisms in a multi-locus gene network. **Nature**, 2010; 464:54-58. PMID: 20164837
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83. Kuttykrishnan S, Sabina J, Langton LL, **JOHNSTON M**, Brent MR. Quantitative model of glucose signaling in yeast reveals an incoherent feed forward loop leading to a specific, transient pulse of transcription. **Proc Natl Acad Sci USA**, 2010; 107:16743-8. PMID: 20810924
84. Wang H, Mayhew D, Chen X, **JOHNSTON M**, Mitra RD. Calling Cards enable multiplexed identification of the genomic targets of DNA-binding proteins. **Genome Res.** 2011; 21:748-55. PMID: 21471402
85. Zill OA, Scannell DR, Rokas A, Payen C, Dunham MJ, Eisen MB, Rine J, **JOHNSTON M**, Hittinger CT. The awesome power of yeast evolutionary genetics: New genome sequences and strain resources for the *Saccharomyces sensu stricto* genus. **G3: Genes, Genetics, Genomes** 2011; 1:11-25. PMID: 22384314; PMCID: [PMC3276118](https://pubmed.ncbi.nlm.nih.gov/22384314/)
86. Libkind D, Hittinger CT, Valério E, Gonçalves C, Dover J, **JOHNSTON M**, Gonçalves P, Sampaio JP. Microbe domestication and the identification of the wild genetic stock of lager-brewing yeast. **Proc Natl Acad Sci USA**, 2011; 108:14539-44. PMID: 21873232

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GENETICS 2012; 190:941-9. PMID: 22214611; PMCID: PMC3296256
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Genome Res. 2012 22:681-92. PMID: 22287102; PMCID: PMC3317150
89. Simpson-Lavy KJ, **JOHNSTON M**. SUMOylation regulates the SNF1 protein kinase.
Proc Natl Acad Sci U S A. 2013 110:17432-7. PMID: 24108357; PMCID: PMC3808588
90. Simpson-Lavy KJ, Bronstein A, Kupiec M and **JOHNSTON M**. Cross-talk between carbon metabolism and the DNA damage response in *S. cerevisiae*.
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