

FIVE YEAR PUBLICATION LIST

JAMES C. SCHNABLE

H-Index: 30

Lab members in **bold**.

Postdoc/visiting scholar† in Schnable Lab.

Graduate student‡ in Schnable Lab.

Undergraduate authors in Schnable Lab.

Authors contributed equally*

Journal Publications 2020-2016

2020 Journal Publications (N=18)

7. **Liang Z‡**, Qiu Y, **Schnable JC** (2020) Distinct characteristics of genes associated with phenome-wide variation in maize (*Zea mays*). MOLECULAR PLANT doi: [10.1016/j.molp.2020.03.003](https://doi.org/10.1016/j.molp.2020.03.003) bioRxiv doi: [10.1101/534503](https://doi.org/10.1101/534503)
Selected as an Editor's Choice by MaizeGDB Editorial Board May 2020
JOURNAL IMPACT FACTOR (2020 REPORT): 12.1
ALTMETRIC SCORE (PERCENTILE AT JOURNAL): 52 (96th)
SCHNABLE LAB PERCENT CONTRIBUTION: 80%
CONTRIBUTION STATEMENT: All aspects of the paper with the exception of generating the original statistical method (Y. Qiu).
6. **Miao C‡**, Xu Y, Liu S, Schnable PS, **Schnable JC** (2020) Increased power and accuracy of causal locus identification in time-series genome-wide association in sorghum. PLANT PHYSIOLOGY doi: [10.1104/pp.20.00277](https://doi.org/10.1104/pp.20.00277) bioRxiv doi: [10.1101/2020.02.16.951467](https://doi.org/10.1101/2020.02.16.951467)
"News and Views" highlighting this article by Y Yu doi: [10.1104/pp.20.00797](https://doi.org/10.1104/pp.20.00797)
JOURNAL IMPACT FACTOR (2020 REPORT): 6.9
ALTMETRIC SCORE (PERCENTILE AT JOURNAL): 29 (91st)
SCHNABLE LAB PERCENT CONTRIBUTION: 80%
CONTRIBUTION STATEMENT: Y. Xu ran a new type of statistical analysis he had generated at Iowa State, S. Liu and PS Schnable contributed genotyping data for the sorghum population, all other aspects of the paper carried out by Schnable lab members.
5. **Dai X‡**, Xu Z, **Liang Z‡**, Tu X, Zhong S, **Schnable JC**, Li P (2020) Non-homology based prediction of gene functions. THE PLANT GENOME doi: [10.1002/tpg2.20015](https://doi.org/10.1002/tpg2.20015) bioRxiv doi: [10.1101/730473](https://doi.org/10.1101/730473)
JOURNAL IMPACT FACTOR (2020 REPORT): 3.8
ALTMETRIC SCORE (PERCENTILE AT JOURNAL): 16 (96th)
SCHNABLE LAB PERCENT CONTRIBUTION: 90%
CONTRIBUTION STATEMENT: Z Xu, X Tu, and S Song contributed data. P Li co-mentored X Dai with Prof. Schnable. All other aspects of the paper carried out by Schnable lab members.
4. **Miao C‡**, **Pages A**, Xu Z, Rodene E, Yang J, **Schnable JC** (2020) Semantic segmentation of sorghum using hyperspectral data identifies genetic associations. PLANT PHENOMICS doi: [10.34133/2020/4216373](https://doi.org/10.34133/2020/4216373)
JOURNAL IMPACT FACTOR (2020 REPORT): New Journal
ALTMETRIC SCORE (PERCENTILE AT JOURNAL): 32 (93rd)
SCHNABLE LAB PERCENT CONTRIBUTION: 80%
CONTRIBUTION STATEMENT: R Rodene and J Yang contributed data. Z Xu advised on statistical analysis methods. All other aspects of the paper carried out by Schnable lab members.

3. **Carvalho DS†, Nishimwe AV, Schnable JC** (2020) IsoSeq transcriptome assembly of C₃ panicoid grasses provides tools to study evolutionary change in the Panicoideae. *PLANT DIRECT* [10.1002/pld3.203](https://doi.org/10.1002/pld3.203) [BIORxIV doi: 10.1101/689356](https://doi.org/10.1101/689356)
 JOURNAL IMPACT FACTOR (2020 REPORT): 1.7
 ALTMETRIC SCORE (PERCENTILE AT JOURNAL): 26 (92nd)
 SCHNABLE LAB PERCENT CONTRIBUTION: 100%
 CONTRIBUTION STATEMENT: N/A

2. **Lai X†, Bendix C, Yan L†, Zhang Y†, Schnable JC, Harmon F** (2020) Interspecific analysis of diurnal gene regulation in panicoid grasses identifies known and novel regulatory motifs. *BMC GENOMICS* doi: [10.1186/s12864-020-06824-3](https://doi.org/10.1186/s12864-020-06824-3)
Selected as an Editor's Choice by MaizeGDB Editorial Board October 2020
 JOURNAL IMPACT FACTOR (2020 REPORT): 3.6
 ALTMETRIC SCORE (PERCENTILE AT JOURNAL): 11 (91st)
 SCHNABLE LAB PERCENT CONTRIBUTION: 75%
 CONTRIBUTION STATEMENT: Plants were grown and RNA samples were collected in the Harmon lab. RNA-seq libraries were build and sequenced in the Schnable lab. Expression, comparative genomics, and promoter motif analysis conducted in the Schnable lab. Phylogenetic analysis of clock genes conducted in the Harmon lab.

1. Gaillard M*, **Miao C†*, Schnable JC**, Benes B (2020) Voxel carving based 3D reconstruction of sorghum identifies genetic determinants of radiation interception efficiency. *PLANT DIRECT* doi: [10.1002/pld3.255](https://doi.org/10.1002/pld3.255) [BIORxIV doi: 10.1101/2020.04.06.028605v1](https://doi.org/10.1101/2020.04.06.028605v1)
 JOURNAL IMPACT FACTOR (2020 REPORT): 1.7
 ALTMETRIC SCORE (PERCENTILE AT JOURNAL): 23 (88th)
 SCHNABLE LAB PERCENT CONTRIBUTION: 50%
 CONTRIBUTION STATEMENT: Schnable lab generated data. Benes lab analyzed data to construct 3D models. Schnable lab conducted the GWAS and analyzed the results. Writing was shared equally between the two groups.