

PUBLICATIONS (authors shown in bold are Systems Biology students)

- Li X., Bloomfield M., **Bridgeland A.**, Cimini D., Chen J. A fine balance among key biophysical factors is required for recovery of bipolar mitotic spindle from monopolar and multipolar abnormalities. *Molecular Biology of the Cell* 2023 (<https://doi.org/10.1091/mbc.E22-10-0485>)
- Miao L., **Batty K.R.**, Jackson A.N., Pieno H.A., Rhoades M.W., Kojima S. Genetic and environmental perturbations alter the rhythmic expression pattern of a circadian long non-coding RNA, Per2AS, in mouse liver. *F1000Res.* 2022, 11:1073. doi: 10.12688/f1000research. (<https://pubmed.ncbi.nlm.nih.gov/36250003/>)
- Lazar I.M., Karcini A., **Haueis, J.R.S.** Mapping the Cell-Membrane Proteome of the SKBR3/HER2+ Cell Line to the Cancer Hallmarks, *PLOS ONE* 2022, 17(8), Article e0272384. (<https://doi.org/10.1371/journal.pone.0272384>)
- Yao X.,[#] **Heidebrecht B.**,[#] Chen J., and Tyson J.J. Mathematical analysis of robustness of oscillations in models of the mammalian circadian clock. *PLOS Computational Biology* 2022, 18(3): e1008340. (# Co-first authors) (<https://doi.org/10.1371/journal.pcbi.1008340>)
- Mosig R.A., Castaneda A.N., Deslauriers J.C., Frazier L.P., He K.L., Maghzian N., Pokharel A., **Schrier C.T.**, Zhu L., Koike N., Tyson J.J., Green C.B., Takahashi J.S., Kojima S. Natural antisense transcript of Period2, Per2AS, regulates the amplitude of the mouse circadian clock. *Genes Dev.* 2021, 35(11-12):899-913. doi: 10.1101/gad.343541.120. (<https://pubmed.ncbi.nlm.nih.gov/34016691/>)
- **Stump E.**, Childs L.M., Walker M. Parasitism of *Aedes albopictus* by *Ascogregarina taiwanensis* lowers its competitive ability against *Aedes triseriatus*. *Parasite & Vectors* 2021, 14, Article number: 79 (<https://doi.org/10.1186/s13071-021-04581-0>)
- Strube L., **Walton M.**, Childs L.M. Role of repeat infection in the dynamics of a simple model of waning and boosting immunity. *Journal of Biological Systems* 2021, 29:2 1-22. (<https://doi.org/10.1142/S021833902140012X>)
- Lazar I.M., **Gulakowski N.S.**, Lazar A.C. Protein and Proteome Measurements with Microfluidic Chips, *Anal. Chem.* 2020, 92(1), 169-182. (<https://doi.org/10.1021/acs.analchem.9b04711>)

PRESENTATIONS

- **Albrecht M.**, Yao X., Chen J. Development of a single-nucleotide model of mRNA poly(A) tail length rhythms in relation to circadian gene expression. Virginia Tech Department of Biological Sciences Undergraduate Research Exposition, April 17, 2023.

- Bloomfield M., Li X., Garcia E.B., **Peyton L.**, Chen J., Cimini D. The mechanical properties of the centromere affect metaphase chromosome dynamics and mitotic progression. Oral presentation by Mathew Bloomfield at conference on “Mitotic spindle: From living and synthetic systems to theory,” April 2023, Dubrovnik, Croatia.
- **Albrecht M.**, Yao X., Chen J. Development of a single-nucleotide model of mRNA poly(A) tail length rhythms in relation to circadian gene expression. Translational Biology Medicine and Health Fall Open House, November 11, 2022.
- Bloomfield M., Li X., Garcia E.B., **Peyton L.**, Chen J., Cimini D. Centromere mechanical properties affect metaphase chromosome dynamics and mitotic progression. Poster presentation at the American Society for Cell Biology annual meeting (virtual), December 2021.
- Bloomfield M., Li X., Garcia E.B., **Peyton L.**, Chen J., Cimini D. Altering centromere stiffness causes a mitotic delay and slower metaphase chromosome oscillations. Poster presentation at the Salk Institute Cell Cycle meeting (virtual), June 2021.