Quorum sensing is a cell-to-cell response system. It was utilized in our project as an amplification for the metal input. This would theoretically yield a quicker response time.

Two sets of promoters were constructed for the LuxR (tetracycline and lactose) and CinI (arabinose) genes. According to literature (see 1), choosing the CinI promoter that is not activated by arabinose allows researchers to synthetically evolve their RNAs so that they can still respond to tetracycline.

Input to the logic lab was divided into three categories: arsenic, mercury, and copper, which were chosen as the main metabolites of interest.

This year's Virginia United team spans five universities and joins eighteen students across Virginia and West Virginia. Amongst each of the schools, there is a Quorum Sensing Amplifiers and a Co-design Approach for Information Processing.