Gabe Tavas has developed an alternative wood using safe and regenerative bacterial cellulose. This bacterial cellulose can grow with minimal amounts of water and sugar from food waste. Gabe’s ultimate hope is that the alternative wood will lead to sustainable and cheaper commercial applications, such as a substitute for tree-based wood construction, and petroleum-based plastics. Innovative use of alternative wood will help combat deforestation and reduce plastic pollution around the world, especially in regions that lack the resources and infrastructure needed to address chronic environmental issues.

He is developing this alternative wood at the Biomaking Space that he founded in partnership with the Champaign-Urbana Community Fab Lab to develop sustainable products. Gabe believes that biology can be combined with design thinking to develop sustainable products. When he is not tinkering at the Biomaking Space, Gabe can be found at maker spaces in Chicago like The Makerlab in the Harold Washington Library and mHub, where he is helping Urban Rivers, a non-profit developing a river-cleaning robot that the public can operate to collect floating trash in city waterways.