Dr. Nik Kovinich is seeking an enthusiastic individual to join his research team at West Virginia University as a PhD or master’s student. Gene regulatory network (GRNs) consist of a collection of transcription factors (TFs) that interact with each other and with other substances in the cell to regulate the expressions of genes that are involved in a biological process. Phytoalexins are plant defense metabolites that are biosynthesized in response to pathogen attack. This research project will focus to understand the GRNs that positively and negatively regulate the biosynthesis of the soybean phytoalexin named ‘glyceollin I’ that has potent anticancer, neuroprotective, and plant-defensive properties. An example of our recent work is here. The successful candidate will receive a full Research Assistantship stipend and will be enrolled in the Genetics & Developmental Biology Program. S(he) will receive training in current techniques of genomics and metabolomics including RNA-seq, ChIP-seq, and ultrahigh performance liquid chromatography-photodiode array-tandem mass spectroscopy (UPLC-PDA-MS\textsuperscript{n}). The opportunity is schedule to begin Fall 2019 but could be expedited or delayed for the right candidate. For more information please contact Dr. Nik Kovinich at Nikola.Kovinich@mail.wvu.edu. For more about our research group please visit our website at www.kovinichlab.com.

Gene regulatory networks (GRNs) orchestrate biological processes and can be effectively studied by the computational analysis of ChIP-seq and RNA-seq datasets.