



**Professor Kevin J. Naidoo**

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Kevin Naidoo develops computer algorithms that allow scientists to unravel the details of chemical reaction networks underlying the construction of complex biological molecules that form the machinery of biological pathways. His work has been featured on the front covers of the leading computational chemistry journals and has been published several times in the authoritative Journal of the American Chemical Society. His development of complex IT methods is motivated by finding solutions to pressing scientific problems particularly discovering a molecular understanding of cancer. His research spans chemical physics through to molecular biology. On the physics end there is his laboratory's recent development of accelerated quantum mechanics computer code that enables the simulation of electronic dynamics in complex systems (such as enzyme catalysis). While at the other end of the spectrum his group's discovery of a Glycosyltransferase gene expression profile for cancer type promises early detection.