## FLORIDA STATE UNIVERSITY COLLEGE OF ARTS AND SCIENCES

## RESURRECTION OF ANCESTRAL GLUCOKINASES TO STUDY THE ORIGINS OF A NEW REGULATORY MECHANISM

By

## SEYEDEHSHIRIN KAMALALDINEZABADI

A Dissertation submitted to the Department of Molecular Biophysics in partial fulfillment of the requirements for the degree of Doctor of Philosophy Seyedehshirin Kamalaldinezabadi defended this dissertation on August 10<sup>th</sup>, 2022. The members of the supervisory committee were:

Brian G. Miller Professor Directing Dissertation

Darin Rokyta University Representative

Hong Li Committee Member

Tim Logan Committee Member

Alan Marshall Committee Member

The Graduate School has verified and approved the above-named committee members and certifies that the dissertation has been approved in accordance with university requirements.