To whom it may concern,

I have known the applicant, Gregory Rehm for 2 years now since we first started working together in 12/2015 in the Adams laboratory. In early 2016 I started working on a project to determine a subject's respiratory compliance by using previously designed algorithms to extract these quantities from ventilator waveform data. Shortly thereafter Gregory joined me as the programming expert and intended to implement my work computationally. However, soon after we started working together I had to discontinue my own participation due to events out of my control. Now that Gregory is starting his PhD, he expressed interest in restarting the project. I accepted to resume my efforts because as a respiratory therapist I believe that greater leveraging of electronic tooling could improve standards of care in the hospital. I also think that the proposed work could be of real use in helping patients with ARDS, a disease I see affect far too many people.

In my work with him Gregory has been collaborative, responsive, and very motivated colleague to work with. When we first started working together he took time out of his day to teach me fundamentals of programming in Python. He has shown excellent understanding of the human respiratory system and mechanical ventilation in general and often has excellent insights into the algorithms we jointly examine. He also displays a genuine desire to approach our problems scientifically and has been developing a study design and collection criteria that fit within the boundaries of our current IRB. These designs have proved effective thus far and our most recent efforts towards validating the performance of our computational implementation have been successful.

For this project I will personally be recruiting approximately 30 additional patients for the study. I plan to request help from several of of my colleagues for this effort and we anticipate finishing enrollment and data collection by July 2018. Afterwards the data will be analyzed by Gregory for use towards better informing his analytic algorithms for ARDS detection. Finally, we hope to publish an article in an informatics journal where we will share first authorship. I wholeheartedly endorse Gregory's efforts and contributions to this work and he has been an invaluable partner in helping to push it towards completion.

Jimmy Nguyen
RRT-NPS, ACCS, AE-C