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Letter of Support for Daniel Rios-Doria who is applying for Participation in the DIMACS program

Daniel Rios-Doria is a Peruvian-American student who had an *outstanding* first semester as a graduate student. He did very well in his coursework and passed a Ph.D. qualifier in differential equations. His performance in the ODE qualifier was superb! Daniel is extremely promising, highly disciplined, smart and collegial. He has carried out group-research successfully in my summer program. He clearly played a leadership role in his group. He grew up in New York and is totally aware of the importance of increasing the representation of minorities in academia.

I am currently his mentor and advisor. I will be working out with him on whatever project captures his interest and/or imagination during his visit to South Africa. Who will finally become his Ph.D. advisor? I could not answer this question. We have a strong group of mathematical biologists (6). We are also extremely likely to hire *two additional strong* individuals who find themselves in the middle of their successful academic and research careers.

Our group currently has six faculty members and two research professors (Karl Hadeler and Priscilla Greenwood) and it is without question one of the strongest mathematical biology groups in the nation. The research of the mathematical biology faculty is directly tied in or motivated by the study of disease dynamics and ecology. We have an extraordinary biology program and have epidemiologist of the caliber of Roy Curtiss III (Member of the National Academies and in two Ph.D. committees within my group) and Sander van der Leeuw whose work in archeology and Complex Systems is closely tied in to the study of the factors that impact the dynamics of cities. Sander is leading an effort in the computational social sciences in which students like Daniel may also find fascinating research questions of interest to poverty and disease stricken nations. Our program in the ecology of infectious diseases led by Jim Collins (NSF Assistant Director in the Biological Sciences) also provides plenty of opportunities for our students to carry out significant research. In fact, I have a graduate student and a postdoctoral student working on malaria at the moment.

Daniel is extremely likely to continue in the field of mathematical biology and he is likely to have as a Ph.D. advisor one of our distinguished researchers in this field. A visit to South Africa is likely to have a strong and lasting effect on his future as a researcher and as a committed citizen of the world.

I give Daniel a strong recommendation.

Sincerely

A handwritten signature in black ink, appearing to read 'Carlos Castillo-Chavez', with a stylized, flowing script.

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