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To whom it may concern:

I am writing in recommendation of **Debraj GuhaThakurta**, who has applied for a faculty position in your department. Debraj was a graduate student in my lab, completing his PhD. in July 1999, and is among the best students I have ever supervised.

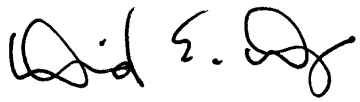
Debraj came to my lab with interests in molecular biology and biophysics. About the time he started, we had solved the structure of ribosomal protein L11 by NMR and had found that it closely resembled a class of DNA binding proteins known as homeodomains. We were curious to know if this similarity would give us some clues as to the RNA binding mechanism used by L11. We also had available the sequences of L11 and its target RNA from about 60 organisms, which we thought should provide some additional hints. Debraj combined site-directed mutagenesis and RNA binding and folding studies to deduce two very important aspects of the RNA-protein complex. In one study, he showed that, during evolution, a mutation in the protein has been compensated by a set of changes in the RNA, and was able to predict a specific amino acid - nucleotide contact. This work was published in Biochemistry. A second study mapped the protein residues involved in electrostatic interactions with the RNA, and was published in the Journal of Molecular Biology. Both papers were substantial studies that defined new ways to use comparative sequence analysis to pose biophysical questions about RNA-protein complexes. About the time Debraj was finishing his thesis, we were able to solve the crystal structure of the complex, and found that all of Debraj's deductions were correct.

From his thesis work, Debraj became intrigued by the information that can be extracted from phylogenetic databases, and decided he would like to pursue bioinformatics. To find out whether he had an aptitude in this area, he took a summer off from my lab (with my blessing) and did a project with Steve Saltzberg, at the time a member of the Hopkins engineering school but spending most of his time at TIGR. Debraj worked on a computer program to locate ribosome binding sites in bacterial genomes and made good progress with it in a relatively short time. He also took advanced computer programming courses and a Cold Spring Harbor course in bioinformatics. These experiences fueled his enthusiasm for computer applications in molecular biology, and he decided to take a postdoctoral position in this area with Gary Stormo, at Washington University in St. Louis. He made excellent progress in his work and from there took his present position as a senior scientist in the Informatics group at Rosetta Inpharmatics. I've kept in contact with Debraj over the years and heard occasional comments about him (all favorable) through the scientific grapevine. My impression is that he has done very well, though I am too far removed from his area of expertise to make specific comments about the impact of his work.

I found Debraj to be a very dedicated and independent worker. He could generate more data in a short time than many of the postdocs I have had; he never waited for me to tell him what to do next; he read widely and thought hard about the design of his experiments. He tended to be quiet, but he interacted with the other students very well and has a good sense of humor. I suspect his creativity and independence are behind his desire to jump from biotech to academia.

I can recommend Debraj as a very solid candidate for a faculty position. Please let me know if I can be of any further assistance in your consideration of Debraj for this position.

Yours sincerely,



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