

School of Medicine Department of Pathology and Laboratory Medicine

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Biocomplexity Faculty Search Committee C/O Professor Rob de Ruyter van Stevenick Biocomplexity Institute Indiana University Swain Hall West 117 Bloomington, IN 47405-7105

Dear Professor de Ruyter van Stevenick:

I write in support of the application of Dr. Mariappan Vairapandi for the junior faculty position in your department. I have known Dr. Vairapandi since 1991, when he began his three years of investigation as a post-doctoral research associate in my laboratory. My research program centers about DNA damage and DNA repair, and the relationships of these processes to the etiogenesis of various human diseases. He contributed to the synthesis and characterization of 8-8-dipurinyl dehydrodimers, a novel form of DNA alteration. Most of his work centered on the modification and removal of DNA 5-methylcytosines. This included hydration of DNA 5-methylcytosine, resulting in its eventual deamination to thymine, a potential transition mutation with major biological consequences. Much of his research centered about the mechanism of enzymatic demethylation, i.e., the reduction of 5-methylcytosine content, of DNA. This work continued after his work in my laboratory was completed, and resulted in the partial purification and characterization of a glycosylase that removes 5-methylcytosine from DNA. His work with me resulted in six publications.

For three years, I observed Dr. Vairapandi closely and interacted with him extensively. His laboratory work combines assiduousness, technical mastery, and scientific imagination. His command of laboratory techniques is extensive. Their use in the solution of consequential biological problems is both impressive and original. This indicates a good prospect for a productive career as an independent investigator.

Throughout his stay in my laboratory, I found him to be a most pleasant person. I am certain that he will interact well with students and colleagues in virtually any situation. His mind is well organized, and this is likely to be reflected in articulate presentations and lectures. I therefore, without any hesitation, recommend him with the highest enthusiasm for the junior faculty position in your department. Should there be any questions, please do not hesitate to contact me.

Sincerely yours,

Nahum J. Buker, M.D. Professor of Pathology and Laboratory Medicine