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Health System
Comprehensive Cancer Center

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Biocomplexity Faculty Search Committee
c/o Prof. Rob de Ruyter van Steveninck,
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Indiana University
Swain Hall West 177
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Re: Randall G. Worth, Ph.D.

To Whom It May Concern:

The purpose of this letter is to provide you with a recommendation for Randall G. Worth, PhD, who is applying for a position in your department. I came to know Dr. Worth during the time that he was a PhD graduate student and postdoctoral fellow (1994-1999) working under the mentorship of my scientific collaborator, Howard Petty, at Wayne State University. As per his curriculum vitae, Dr. Worth left the Petty laboratory to pursue a second postdoctoral fellowship under the mentorship of Alan Schreiber at the University of Pennsylvania. Dr. Worth has recently completed his postdoctoral fellowship experience and is now a member of the research faculty (as a research associate) as a member of Dr. Schreiber's group. Although most of my personal experience with Dr. Worth dates back to his time in the Petty laboratory, I have continued to collaborate with him since his move to Philadelphia.

Dr. Worth developed an interest in the role of integrins and Fc receptors (FcR) as a graduate student and has made several important contributions to this area of phagocyte biology. In particular, he demonstrated that the leukocyte integrin, CR3 (CD11b/CD18) could restore IgG-dependent phagocytosis in 3T3 transfectants expressing a phagocytosis-defective form of FcγRIIA (CD32) (missing its cytoplasmic tail). This study, published in the Journal of Immunology (Worth J, J Immunol 157; 5660, 1996) indicated that signaling via CR3 could restore the function of tail-minus CD32. These results were consistent with our earlier observations that CR3 can serve as a signal transducer for several tailless receptors (uPAR, FcγRIIIB, and CD14). More recently, in follow up studies, Dr. Worth has been exploring the possibility that the tail of FcγRIIA is in fact essential for delivery of IgG-opsonized particles to lysosomal compartments in transfectants. He has continued this work during his postdoctoral experience in Dr. Schreiber's laboratory. His results to date support the hypothesis that the cytoplasmic domain of FcγRIIA is necessary for transport of opsonized particles to lysosomes (Worth J, Blood 98:3429, 2001). In addition to these studies examining a potential interaction between CR3 and

FcγRIIA, Dr. Worth also explored the potential influence of mercury which impairs neutrophil signaling possibly by inducing CR3 membrane clustering (Worth J, Scand J Immunol 53:49, 2001). Most recently, Dr. Worth coauthored a comprehensive review describing the function of integrins as signaling partners for various other receptors on human leukocytes published in Immunologic Research (Petty HR, Immunologic Res 25/1:75, 2002). Since moving to the Schreiber laboratory, Dr. Worth has continued to excel as reflected by several additional peer reviewed reports and his receipt of several competitive funding awards including a postdoctoral fellowship from the Arthritis Foundation. He has clearly had the benefit of excellent cell biology training in Dr. Petty's laboratory and became proficient in the performance of functional assays important in the assessment of neutrophil function in general and integrin/FcR activity in particular. As a result of this experience, he was well prepared to gain additional experience in molecular biology techniques in the Schreiber laboratory to complement his cell biology repertoire. Whereas Drs. Petty and Schreiber are in a much better position to comment on Dr. Worth's personal characteristics, I can verify that Dr. Worth has an excellent work ethic and is a highly motivated young scientist. Indeed, his recruitment to Dr. Schreiber's laboratory (who is one of the world's leading experts in phagocyte receptor function) is a testament to Dr. Worth's potential for a successful career in biomedical research. It is clear that he has lived up to this expectation and is rapidly achieving independence as an investigator. Accordingly, I wholeheartedly support Dr. Worth's application for a position on your Science faculty

Very sincerely yours,

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