Investigator:	**William Shafer** Phone: (404) 321-6111 ext. 7137 Email: wshafer@emory.edu
Primary Research Interest:	Microbiology
Description of Research:	William M. Shafer, Ph.D. received the Ph.D. degree in Microbiology in 1979 from Kansas State University. He performed post-doctoral studies from 1979-1982 at the University of North Carolina-Chapel Hill where he studied the mechanisms of antibiotic resistance expressed by Neisseria gonorrhoeae. Dr. Shafer has been a faculty member at Emory School of Medicine since 1982 and is also a Senior Research Career Scientist at the Atlanta VA. His work on the genetics of antibiotic resistance and the mechanisms by which bacterial pathogens escape innate human host defenses has been continuously funded by the NIH and VA since 1984. Dr. Shafer has authored over 100 manuscripts and numerous book chapters. He has trained ten Ph.D. students and ten post-doctoral fellows and is currently training four graduate students and three post-doctoral fellows. Dr. Shafer is the former Director of the Microbiology and Molecular Genetics graduate program and is currently Co-Director of an NIH-funded training grant that supports graduate and post-doctoral students studying the molecular mechanisms of microbial pathogenesis.
Relevance to VA:	Dr. Shafer's research deals with the molecular mechanisms of bacterial pathogenesis, transcriptional control systems in Neisseria gonorrhoeae and the function of multidrug efflux pumps and modifications of bacterial surface structures in virulence and antibiotic/antimicrobial resistance. He is primarily interested in the molecular basis by which bacterial pathogens escape the toxic action of host-derived antimicrobials and antibiotics used in treatment of infections. As antibiotic resistance is a common problem for both out- and in-patients, Dr. Shafer's research efforts are highly relevant to the VA patient care mission.