

March 19, 2001

(Recommendation for Dr. Nada H. Saab-Ismail)

I am writing to you to recommend, with great enthusiasm, Dr. Saab-Ismail to the faculty position your institution is seeking to fill. Dr. Saab came to this country to work towards her PhD after several years of teaching Chemistry in Lebanon. She is a devoted scientist who has shown during her graduate studies, which she completed in record time, as well as during the seven years since obtaining her Ph.D. degree, that she is capable of sustained research and serious scientific publication. She published during 1993-1995 three very important articles reporting her results relating to her Ph.D. thesis work on unsymmetrical polyamine analogues, potential antitumor agents, carried out under Dr. Patrick Woster's mentoring at the Department of Pharmaceutical Sciences of Wayne State University, Detroit, Michigan. These articles were published in the Journal of Medicinal Chemistry, Toxicology and Applied Pharmacology, and Cancer Chemotherapy Pharmacology, and they are unique in the area of synthesis and characterization of these agents.

Upon the completion of her work towards the Ph.D. degree, Dr. Saab moved to the University of Tennessee College of Pharmacy, Memphis, to expand her vista under the guidance of Dr. Duane D. Miller, Van Vleet Professor of Pharmaceutical Sciences; an acknowledged expert in the synthesis of new drug molecules. In his laboratory, Dr. Saab continued making her mark on the field of pharmaceutical agents working on the synthesis and characterization of inhibitors of aldose reductase. These inhibitors are potential drugs for the treatment of complications induced by insulin-independent diabetes. In August 1995 Dr. Saab came to my laboratory, and her new endeavors in the field of the synthesis of new drug molecules to be used for the diagnosis of Ischemic Heart Disease have been as successful as her research in the previous two laboratories.

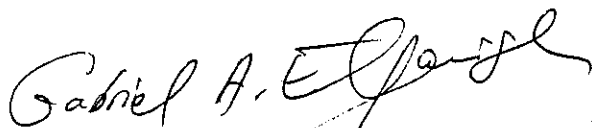
The significance of the project she undertook here, development of new gadolinium complexes as contrast agents for early MRI diagnosis of Ischemic Heart Disease, cannot be exaggerated. Ischemic Heart Disease is by far the number one killer in western societies of both men and women, and an early screening method is at present nonexistent. Thus for about one third of victims their first symptom is a lethal heart attack. MRI is a noninvasive imaging technique with

excellent soft tissue resolution. Early ischemic underperfusion, however, does not provide sufficient contrast for detection of affected heart tissue. With the injection of specific contrast agents whose development has been for years the subject of our endeavor, such a contrast can be attained as we have shown in ferret and dog studies. The major hurdle that remains to be overcome is making these agents safer for human use. Achieving this is Dr. Saab's project. She is synthesizing a modified ligand with increased binding affinity to the metal ion gadolinium. This increased affinity will reduce the possibility of the release, in the injected body, of free, uncomplexed, gadolinium ions and thus increase patient safety. Her synthetic plan is at once inspired and straightforward.

In the course of the period of time that Dr. Saab was a Research Associate in my group she assimilated into my team in a perfect manner both from the scientific and social point of view. She accomplished competently, efficiently, and in good spirit every synthetic task given to her. I can say without hesitation that I am very pleased with her performance. It is evident that she had received excellent training and acquired good laboratory skills and work habits. She approaches her tasks in a methodical manner and her actions are based on thorough thinking and library preparations. She applies to her work good knowledge and understanding of the field of organic synthesis, and is quite willing and able to learn areas new to her in science. I am certain that she is able to undertake any new research endeavors successfully.

Finally, Dr. Saab had a very positive attitude in her relations with other members of the lab. She approaches everyone in good humor and constructive manner. Her kind and pleasant personality was always evident. I am pleased to have had her aboard. She is in particular able to work with female coworkers for whom she presents a role model, combining no-nonsense scientific competence with a quiet confidence and highly developed interpersonal skills. From these interactions I have concluded that she would be an excellent teacher. I am certain that she is ready to enter her next career phase in an independent faculty position. I recommend her very strongly. Should you require any further information or comments on my part, please do not hesitate to contact me.

Sincerely,



Gabriel A. Elgavish, PhD
Professor of Biochemistry and Molecular Genetics