

German Cancer Research Center | B020 | PO Box 101949 | D-69009 Heidelberg

Biocomplexity Faculty Search Committee
c / o Prof. Rob de Ruyter van Steveninck
Department of Physics
Indiana University
Swain Hall West 117
Bloomington IN, 47405-7105
USA

Division
Molecular Biophysics
B020
Head:
Prof. Dr. rer. nat. Sándor Suhai

Im Neuenheimer Feld 580
D-69120 Heidelberg
Phone +49.62 21.42-23 69
Telefax +49.62 21.42-23 33
www.dkfz.de
mol.biophys@dkfz.de

Heidelberg, Jan. 13, 2005

To whom it may concern

Dear Professor de Ruyter van Steveninck:

With this letter I would like to warmly recommend Dr. Emad Tajkhorshid for a faculty position at the Indiana University. As Head of the Department of Molecular Biophysics at the German Cancer Research Center and Professor of Molecular Bioinformatics at the University of Heidelberg I would like to characterise the scientific career of Dr. Emad Tajkhorshid who worked as a postdoctoral fellow in my department during the years 1996 to 1999. Originally, he graduated from the School of Pharmacy, Tehran University in 1989 and subsequently trained as a research scientist at Tehran University and the University of Heidelberg where he obtained his second PhD in the field of molecular biophysics in 2001.

Dr. Tajkhorshid has an excellent background in theoretical biochemistry and biophysics. He was mainly involved in three research projects in my department: (i) conformational and dielectric effects on the proton affinity of the retinal Schiff base in bacteriorhodopsin, (ii) theoretical studies of the vibrational spectra of hydrated peptide molecules and (iii) computer modelling of the active site of papain with and without ligand. During this period he published his results from these projects in nine original publications in leading international journals, mostly as a first author. Subsequently, after a six month period at Paderborn University, in July 2000 he joined the Theoretical Biophysics group at the Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign where he continued his extremely successful research in the field of computer-assisted molecular simulations on the structure and properties of membrane proteins. More than 30 original publications during the past 4 years in the leading international journals of the field demonstrate the importance of Dr. Tajkhorshid's achievements and their acceptance by the science community which is also reflected by a large number of invitations to planary talks at international conferences.

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Dr. Tajkhorshid is an outstanding researcher with a deep insight into the methodology of computer-aided molecular structure simulations including quantum-chemical and molecular dynamics methods. Beyond the theories he applies, he also has a profound understanding of the essence of the biochemical and biophysical problems under study. Due to his bright intellectual capabilities he established several important interdisciplinary contacts with physicists and computer scientists worldwide far beyond his original field of education. Dr. Tajkhorshid also has broad experiences in science management serving as Assistant Director for Research at his host institution and being Principal Investigator in several large-scale projects with extramural funding.

In my opinion, Dr. Tajkhorshid is one of the foremost researchers in his field today and I am convinced that his skills and capabilities qualify him for the position he has applied for.

Yours sincerely,



Prof. Dr. Sándor Suhai