

December 4, 2008

Dr. Fereydoon Namavar,
Professor
Director of Nano-Biotechnology
985360 Nebraska Medical Center
Omaha, NE 68198-5360

Dear Fereydoon,

This letter is to express, and fully endorse, my strong support for your efforts to further investigate your “Smart Coatings” technology. Since these coatings are diversified with being super hard, radiation resistant, self lubricating, having superior adhesion and cell-growth properties, the possible applications and benefits are endless.

Beyond the bio-medical application and reducing orthopaedic implant wear, as previously presented to me, I can foresee this technology being tapped for nuclear fuel reprocessing, nuclear waste immobilization, among others.

Speaking from my experience in nanoscale materials, I suspect that the capabilities of your ceramic coating will be without limits. Your nanocrystalline zirconia coatings can significantly extend the lifetime of critical engine components in aircraft, boats, and ground vehicles. It could also improve tribological performance (allowing energy-saving redesign) of components such as gears, bearings, and cutting tools. I remain enthusiastic about your further development.

Sincerely,



S. Thevuthasan, Staff Scientist PhD
Interfacial and Nanoscale Science Facility
William R. Wiley Environmental Molecular Sciences Laboratory



PS: Consistent with PNNL policy I will add that the views expressed are my own and do not represent an official statement of the laboratory.