

**The 2002 IAPSAP/MPSA Young Investigator Award, supported by Applied Biosystems, Inc., was given to Dr. Niroshan Ramachandran, Harvard Institute of Proteomics, Department of Biological Chemistry and Molecular Pharmacology, Harvard University, Boston, MA 02115, USA**



Dr. Ramachandran, currently a postdoctoral fellow in Dr. Joshua LaBaer's lab, has developed a novel self-assembling protein microarray. In this approach, Nucleic Acid Programmable Protein Array (NAPPA), proteins self assemble from nucleic acids. Traditional target protein microarrays are generated by expressing, purifying and spotting the proteins on a microarray. Dr. Ramachandran's approach begins with spotting full-length cDNAs, which are then transcribed and translated using a eukaryotic cell-free expression system. This approach offers a number of advantages over conventional protein microarrays: first, it eliminates the need for tedious and laborious methods for protein purification; second, it reduces concerns about protein stability as the proteins are produced just-in-time; lastly, it allows

expression of mammalian proteins in a mammalian milieu that contains the necessary machinery to ensure the integrity of mammalian proteins. Dr. Ramachandran has used this technology to build a protein interaction network among human DNA replication proteins, to study regulation of protein interaction and to map binding domains. He currently is building a microarray expressing the 1000 most relevant genes in breast cancer (BC1000 gene collection - FLEXGene repository). The BC1000 microarray will be used to interrogate the functions of these genes and to develop diagnostic tools for breast cancer.

Dr. Ramachandran received his award at MPSA2004 in Seattle, WA. IAPSAP created the Young Investigator Award in 2000 to recognize promising young investigators who are beginning to advance the fields of protein chemistry, protein structure analysis, or proteomics. The first award was given Dr. Kristian Müller, now in Freiburg, Germany; the 2002 Young Investigator award was presented to Dr. Dorothee Kern, Brandeis University at MPSA2002 in Valencia, Spain.