



**TIFR Centre for Interdisciplinary Sciences,  
Narsingi, Hyderabad 500075**

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## **Seminar**

**DNA as a Versatile Reagent: Structural Component for  
Branched Networks and Catalyst for Organic and Bio-  
organic Reactions**

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**Abstract:** DNA exists as double helix in nature which is mainly implicated as genetic material. However there are numerous non-biological applications explored by the scientific community. One such example is the usage of DNA in material science and nanotechnology. First, I will discuss how the branched DNAs (bDNAs) generated from synthetic branched monomers and explain how we can generate organized structures by using enzymatic approaches.<sup>1</sup> Second, I will focus on the recent advances made in the field of DNA catalysis. Recently, we have identified deoxyribozymes (DNA catalysts) that can hydrolyze DNA and also we compared the catalytic properties of RNA and DNA for the Diels-Alder reaction.

**Date: Friday, January 18<sup>th</sup> 2013**

**Time: 11:30 AM (Tea/Coffee at 11:15 AM)**

**Venue: Conference Hall, TCIS**

***All are cordially invited***