

Monday, March 22, 2010

CBR-funded graduate student Jyothi Digambaranath publishes paper in the journal Biopolymers

The CBR supports graduate research in the Biomedical Sciences PhD program using the Research Excellence Fund from the State of Michigan. Several of our top graduate students are supported in this way. For example, Jyothi Digambaranath, a graduate student in the **Biomedical Sciences: Health and Environmental Chemistry** PhD program, is funded by the CBR (with tuition support from the OU Research Office's GReAT program) to work with Assistant Professor **John Finke**, of the **Department of Chemistry**. Digambaranath is lead author on a recently published paper about **Conformations within Soluble Oligomers and Insoluble Aggregates Revealed by Resonance Energy Transfer** (Biopolymers, Volume 93, Pages 299-317, 2010). "Jyothi has pioneered the use of time-resolved **FRET** [Fluorescence Resonance Energy Transfer] to study the structure of protein soluble oligomers," says Finke. "Until Jyothi's study, no other research lab has been able to successfully carry out a complete set of FRET studies, both steady-state and time-resolved FRET, on protein soluble oligomers. In this work, she has demonstrated the accuracy of the FRET technique on the well-studied molecular system for soluble oligomers, **polyglutamic acid**. Having shown the proof-of-principle of her FRET method, Jyothi is currently studying soluble oligomers of **beta-amyloid**, which cause **Alzheimer's Disease**, and **polyglutamine**, which causes **Huntington's Disease**."

SUMMARY

Jyothi Digambaranath, a graduate student in the Biomedical Sciences: Health and Environmental Sciences PhD program, is funded by the CBR to work with Assistant Professor John Finke, of the Department of Chemistry.

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