

## DR-91

# SYNTHESIS AND ANTIFUNGAL ACTIVITY OF DIAMIDOMETHANE LINKED OXAZOLYL / THIAZOLYL / IMIDAZOLYL ISOXAZOLES

S. Jyothi<sup>1,a)</sup>, M. Madhusekhar<sup>1,b)</sup>, G. Sravya<sup>2,c)</sup>, Grigory V Zyryanov<sup>2,3,d)</sup> and

A. Padmaja<sup>1,e)</sup>

<sup>1</sup>Department of Chemistry, Sri Venkateswara University, Tirupati, Andhra Pradesh, India.

<sup>2</sup>Ural Federal University, Chemical Engineering institute, Yekaterinburg, 620002, Russian Federation.

<sup>3</sup>I. Ya. Postovskiy Institute of Organic Synthesis, Ural Division of the Russian Academy of Sciences, 22 S. Kovalevskoy Street, 620219 Yekaterinburg, Russian Federation.

<sup>e)</sup>Corresponding author: [adivireddyp@yahoo.co.in](mailto:adivireddyp@yahoo.co.in)

<sup>a)</sup>[arunadevibasireddy33@gmail.com](mailto:arunadevibasireddy33@gmail.com)

<sup>b)</sup>[vmsekhar2012@gmail.com](mailto:vmsekhar2012@gmail.com)

<sup>c)</sup>[sravyasvu@gmail.com](mailto:sravyasvu@gmail.com)

<sup>d)</sup>[gvzyryanov@gmail.com](mailto:gvzyryanov@gmail.com)

**Abstract.** Nitrogen containing heterocyclic compounds have great utility in synthetic, medicinal and material chemistry. Oxazole, isoxazole, thiazole, imidazole and their derivatives have gained prominence as they constitute the structural features of many bioactive compounds. In fact, amide functionality represents a privileged scaffold of biomolecules and many drugs. The combination of two or more heterocycles linked by amide functionality into one molecular framework would yield new chemical entities with enhanced pharmacological activities. Besides, development of environmentally benign methods with improved yields is highly desirable. In our continued interest to synthesize a variety of bioactive heterocycles, we planned to develop some new isoxazoles in combination with oxazoles / thiazoles / imidazoles adopting green methodologies and to study their antifungal activity. The results related to these aspects will be presented.

