



1. Name of the faculty  
**Rajesh Ramesh Ugale**
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2. Designation and specialization  
**Assistant Professor in Pharmacology, SLT Institute of Pharmaceutical Sciences, Guru Ghasidas Vishwavidyalaya, (A Central University), Bilaspur**

3. Educational qualification :

**Doctorate of Philosophy (Ph.D.):**  
**Department of Pharmaceutical Sciences, Nagpur University, India**  
**Supervisor: Dr. C.T. Chopde**  
**Project :Role of Neurosteroids In The Action Of Centrally Active Drugs**

**Master of Pharmacy (Pharmacology):**  
**Department of Pharmaceutical Sciences, Nagpur University, India**  
**Project: Role Of Allopregnanolone In The Antipsychotic Effect Of Olanzapine**

**Bachelor of Pharmacy:**  
**Institute of Pharmaceutical Education and Research, Wardha, Maharashtra, India**

4. Contact information (Address, email and cell no)  
**SLT Institute of Pharmaceutical Sciences, Guru Ghasidas Vishwavidyalaya, (A Central University), Bilaspur**  
**Email: [ugale.rajesh@gmail.com](mailto:ugale.rajesh@gmail.com) Mobile: 09754550232**

5. Date of joining  
**Jan 12<sup>th</sup> 2012**

6. Past employment (From latest)  
**Jan 2012-present**  
**Assistant Professor, SLT Institute of Pharmaceutical Sciences, Guru Ghasidas Vishwavidyalaya, (A Central University), Bilaspur (C.G.) India**

**Jul 2001 to Dec 2011**

**Associate Professor, Pharmacology, SKBCOP College of Pharmacy, Kamptee, Nagpur (M.S.) India**

**July 2005 - July 2007**

**Postdoctoral Research Associate**

**Department of Psychiatry, Neurobiology of Alcoholism, University of Illinois at Chicago, VA Medical center, Chicago, Illinois, USA**

**May 2011 - Dec 2011**

**Visiting Faculty, for Animal biotechnology and Genetic Engineering**

**Rajiv Gandhi Biotechnology Center, R.T.M. Nagpur University, India**

7. List of publication/patents (National and international)

**1. British Journal of Pharmacology (Elsevier Publication, UK)**

B G Taksande, N R Kotagale, P D Mali, K T Nakhate, D M Kokare, K Hirani, N K Subhedar, C T Chopde, **R R Ugale**, (2011) Agmatine in the Hypothalamic Paraventricular Nucleus Stimulates Feeding in Satiated Rats: Involvement of Neuropeptide Y (**British Journal of Pharmacology** 164 (2011) 704-718) **Impact Factor: 5.204; Citation Index: 03**

**2. European Journal of Pharmacology (Elsevier Publication, UK)**

Brijesh G. Taksande, Nandkishor R. Kotagale, Mital R. Patel, Gajanan P. Shelkar, **Rajesh R. Ugale**, Chandrabhan T. Chopde (2010) Agmatine, an endogenous imidazoline receptor ligand modulates ethanol anxiolysis and withdrawal anxiety in rats (**European Journal of Pharmacology** 637 (2010) 89–101) **Impact Factor: 2.585; Citation Index: 12**

**3. Behavioural Brain Research (Elsevier Publication, UK)**

Nandkishor Ramdas Kotagale, Brijesh Gulabrao Taksande, Avinash Yashwant Gahane, **Rajesh Ramesh Ugale**, Chandrabhan Tukaram Chopde (2010) Repeated agmatine treatment attenuates nicotine sensitization in mice: Modulation by  $\alpha_2$ -adrenoceptors (**Behavioural Brain Research** 213 (2010) 161–174) **Impact Factor: 3.22; Citation Index: 5**

**4. Neuropharmacology (Elsevier Publication, UK)**

Brijesh G. Taksande, Nandkishor R. Kotagale, Sunil J. Tripathi, **Rajesh R. Ugale**, Chandrabhan T. Chopde (2009) Antidepressant like effect of selective serotonin reuptake inhibitors involve modulation of imidazoline receptors by agmatine (**Neuropharmacology** 57 (2009) 415–424) **Impact Factor: 3.909; Citation Index: 16**

**5. Alcoholism: Clinical and Experimental Research (Blackwell Publishing Group, USA).**

Huaibo Zhang, Amul J. Sakharkar, Guangbin Shi, **Rajesh Ugale**, Anand Prakash, and Subhash C. Pandey (2010) Neuropeptide Y Signaling in the Central

Nucleus of Amygdala Regulates Alcohol-Drinking and Anxiety-Like Behaviors of Alcohol-Preferring Rats (*Alcohol Clin Exp Res*, Vol 34, No 3, 2010: pp 451–461)

**Impact Factor: 3.392; [Citation Index:12](#)**

6. **Journal of Neuroscience** ( [Official Journal of Society of Neuroscience, USA](#))  
Subhash C. Pandey, **Rajesh Ugale**, Huaibo Zhang, Lei Tang, and Anand Prakash  
(2008) Brain Chromatin Remodeling: A Novel Mechanism of Alcoholism (*J Neuroscience* Apr 2;28(14):3729-37) **Impact Factor: 7.45; [Citation Index: 86](#)**
7. **Journal of Neuroscience** ([Official journal of Society of neuroscience, USA](#))  
S Pandey, Huaibo Zhang, **Rajesh Ugale**, Prakash Anand, Teijun Xu and Kaushik Misra, (2008) Effector Immediate-early Gene Arc in the Amygdala Plays a Critical Role in Alcoholism (*J Neuroscience* Mar 5; 28(10):2589-2600) **Impact Factor: 7.45; [Citation Index:31](#)**
8. **Brain Research Main Journal** ([Elsevier Publication, UK](#))  
**Ugale RR, Sharma AN, Kokare DM, Hirani K, Subhedar NK, Chopde CT** (2007) Neurosteroid allopregnanolone mediates anxiolytic effect of etifoxine in rats. (*Brain Res* Dec 12;1184:193-201. Epub 2007 Sep 25.) **Impact Factor: 2.463; [Citation Index:13](#)**
9. **European Journal of Pharmacology** ([Elsevier Publication, UK](#))  
Sharma AN, CT Chopde, K Hirani, kokare DM, **Ugale RR** (2007) Chronic progesterone treatment augments while dehydroepiandrosterone sulphate prevents development of tolerance to ethanol anxiolysis and withdrawal anxiety in rats. (*Eur J Pharmacol* Jul 19;567(3):211-22. Epub 2007 Apr 22) **Impact Factor: 2.585; [Citation Index:16](#)**
10. **Psychopharmacology** ([Springer Publication, USA](#))  
Hirani K, Sharma AN, Jain NS, **Ugale RR**, Chopde CT(2005) Evaluation of GABAergic Neuroactive Steroid 3 alpha-Hydroxy-5 alpha-Pregnane-20-One As A Neurobiological Substrate for the Anti-anxiety Effect of Ethanol in Rats. (*Psychopharmacology* (Berl). 2005 Jul; 180(2):267-78) **Impact Factor: 4.103; [Citation Index:55](#)**
11. **Brain Research Main Journal** ([Elsevier Publication, UK](#))  
**Ugale RR, Mittal N, Hirani K and Chopde CT** (2004) Essentiality of neuroactive steroid allopregnanolone in anticonvulsant action of fluoxetine against PTZ-induced seizures. (*Brain Research* 2004; 1023:102-11) **Impact Factor: 2.463; [Citation Index:16](#)**
12. **Neuropsychopharmacology** ([NATURE Publication, USA](#))  
**Ugale RR, Hirani K, Morelli M, Chopde CT** (2004) Role of neuroactive steroid allopregnanolone in antipsychotic-like profile of olanzapine in rodents. (*Neuropsychopharmacology* 2004; 29:1597-609) **Impact Factor: 6.993; [Citation Index: 26](#)**

**13. List of Presentation (National and international)**

- 1. K. HIRANI, G. P. SHELKAR, R. R. UGALE Agmatine facilitates memory retrieval through activation of noradrenergic afferents of locus coeruleus-hippocampus pathway in inhibitory avoidance test. Neuroscience 2011, November 12-16, 2011 at Washington DC (Accepted for poster presentation)**
- 2. Khemraj Hirani, Brijesh G Taksande, Nandkishor R Kotagale; Prashant D Mali ;Kartik T Nakhate; Dadasaheb M Kokare; Nishikant K Subhedar; Chandrabhan T Chopde; Rajesh R Ugale, (2011) Agmatine in the Hypothalamic Paraventricular Nucleus Stimulates Feeding in Satiated Rats: Involvement of Neuropeptide. Experimental biology 2011 Walter E Washington Convention Center, Washington DC (Poster presentation)**
- 3. Kadu AS, Gite RA, Paliwal NP, Ugale RR, Kotgale NR, Chopde CT. (2010) Effect of withania somnifera extract on ethanol withdrawal induced behavioral and biochemical alterations in rats. Indian Journal of Pharmacology, vol 42, 2, S255. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.**
- 4. Kalantri AH, Palhade MW, Faldu DS, Taksande BG, Kotagale NR, Ugale RR, Chopde CT. (2010) Agmatine induced suppression of conditioned avoidance response: modulation by serotonergic system. Indian Journal of Pharmacology, vol 42, 2, S289. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.**
- 5. Gawande DY, Lahore AK, Gadpayle MG, Taksande BG, Kotagale NR, Ugale RR, Chopde CT. 2010, Effect of agmatine on stress induced anxiety and depression in rats. Indian Journal of Pharmacology, vol 42, 2, S287-S288. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.**
- 6. Badnore GS, Tripathi SJ, Doble NG, Taksande BG, Kotagale NR, Ugale RR, Chopde CT.2010, Antidepressant like effect of bupropion in mice mediated through modulation of imidazoline receptors by agmatine. Indian Journal of Pharmacology, vol 42, 2, S284. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.**
- 7. Aglawe MM, Makade KU, Thakre PP, Taksande BG, Kotagale NR, Ugale RR, Chopde CT.2010, Agmatine attenuates ethanol withdrawal induced memory impairment in rats. Indian Journal of Pharmacology, vol 42, 2, S282. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.**
- 8. Hadole PN, Raut SG, Chavan VK, Taksande BG, Kotagale NR, Ugale RR, Chopde, CT.2010, Assessment of anti-inflammatory activity of some semicarbazone compounds in rats. Indian Journal of Pharmacology, vol 42, 2,**

- S179. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.
9. Mendhi SM, Shirbhate SH, Nagchandi DS, Taksande BG, Kotagale NR, Ugale RR, Chopde CT.2010, Intrahippocampal agmatine administration exhibits antinociceptive effect in neuropathic rats: modulation by sigma-1 receptor. Indian Journal of Pharmacology, vol 42, 2, S160. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.
  10. Sameer SM, Lengure AN, Walke SG, Ugale RR, Taksande BG, Kotgale NR, Chopde CT.2010, Nitric oxide modulation in nucleus accumbens modulates ethanol reward in mice. Indian Journal of Pharmacology, vol 42, 2, S166. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.
  11. Rahangdale SR, Belsare AD, Ugale RR, Taksande BG, Kotagale NR, Chopde CT.2010, Involvement of cannabinoid cb1 receptors in the anxiolytic effect of agmatine. Indian Journal of Pharmacology, vol 42, 2, S294. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.
  12. Datta SM , Raut SG, Taksande BG, Kotagale NR, Ugale RR, Wadodkar SG, Chopde CT.2010, Assessment of analgesic activity of some semicarbazone compounds in rats. Indian Journal of Pharmacology, vol 42, 2, S177. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.
  13. Donadkar VV, Shelkar GP, Ugale RR, Taksande BG, Kotagale NR, Chopde CT.2010, Influence of Nitric oxide and glutamatergic modulations within locus coeruleus on agmatine induced memory facilitation in rats. Indian Journal of Pharmacology, vol 42, 2, S154. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.
  14. Thorat VD, Naik KS, Shrivastav KD, Ugale RR, Taksande BG, Kotagale NR, Chopde CT.2010, Influence of dopaminergic system in nucleus accumbens on memory enhancing effect of cannabinoid antagonist am251. Indian Journal of Pharmacology, vol 42, 2, S172. Dec 13 -16, 2010. 43<sup>rd</sup> Annual Conference of Indian Pharmacological society & International Conference on “Pharmacology and translational Research”, Hyderabad.
  15. H Zhang, R Ugale, A Prakash, S C Pandey (2008) Activity-Regulated cytoskeleton associated protein and dendritic spines in the amygdala: A role in alcohol dependence and preference. Joint Scientific Meeting of the Research Society on Alcoholism and the International Society for Biomedical Research on Alcoholism. June 27-July 2, 2008- Washington, D.C. U.S.A.
  16. Moonat s, Zhang H, Prakash A, Ugale Rajesh, et al., 2009, Amygdaloid Brain-Derived Neurotrophic Factor Signaling and Dendritic spines: A role in Anxiety and Alcoholism. 32nd Annual Scientific Meeting of the Research-Society-on-

**Alcoholism, San Diego, Jun 20-24, 2009 Alcoholism Clinical and Experimental Research, Vol: 33 Issue: 6: Pages 321A-321A**

- 17. S C Pandey, H Zhang, R Ugale, A Prakash, et al., 2009, Regulation of ARC gene Expression and Dendritic Spines in the Amygdala during Alcohol Dependence. 21st Biennial Meeting of the International-Society-for – Neurochemistry/38th Annual Meeting of the American-Society-for Neurochemistry, Cancun, Mexico; Aug 19-24, 2007, Journal of Neurochemistry Vol: 102: Supplement: 1: Pages147-147**
- 18. H Zhang, R Ugale, S C Pandey 2007 Molecular Mechanisms of NPY-induced attenuation of Anxiety-like and Alcohol-Drinking behaviors of Alcohol Preferring (P) rats. 30th Annual Meeting of the Research Society on Alcoholism, Chicago, IL Jul 07-11, 2007**
- 19. A Prakash, R Ugale, S C Pandey 2007 Regulation of CalcitoninGene-Related Peptide (CGRP) expression in the Amygdala by Ethanol Exposure and Withdrawal. 30th Annual Meeting of the Research Society on Alcoholism, Chicago, IL Jul 07-11, 2007**
- 20. C T Chopde, K Hirani, R Ugale, N S Jain (2002); Neuroactive steroids: Potential targets for treatment of psychiatric disorders. Department of Toxicology, University of Cagliari, Cagliari, Italy, UK (Oct 10) (Oral Presentation)**
- 21. K Hirani, RR Ugale and C T Chopde (2003) Neuroactive steroids: Potential targets for treatment of alcoholism and neuropsychiatric disorders. Summer school of Nurturing the Brain, at RIKEN Brain Science Institute, Wako-shi, Japan (Aug 30<sup>th</sup>) (Oral Presentation)**
- 22. Hirani K, Ugale RR, Jain NS, Khisti RT and CT Chopde (2002) Neuroactive steroid 3 alpha-hydroxy-5alpha-pregnan-20-one modulated behavioral action of ethanol in porsolt's force swim test. INDO-US Symposium on "Brain Research" organized by National Brain Research center, New Delhi (Jan. 10-12)**
- 23. K Hirani, AN Sharma, P Bhutada, RR Ugale and CT Chopde (2003) Differential Effects of Positive and Negative GABAergic neurosteroidal modulators on Ethanol Tolerance and Withdrawal-induced Anxiety. International Symposium on Building the Brain organized by National Brain Research center, New Delhi (Dec. 16-18)**
- 24. Belsare AD, Kuldharia SS, Taksande BG, Kotagale NR, Ugale RR, Chopde CT (2009) Central Imidazoline receptors mediate antinociceptive effect of ethanol and nicotine in rats. International Conference on Integrative and Personalised Medicine and 42<sup>nd</sup> Annual Conference of Indian Pharmacological Society Dec 10-12, 2009 Kolkata India.**
- 25. Shelkar GP, Gupta HN, Ugale RR, Taksande BG, Kotagale NR, Chopde CT (2009) Role of ventral tegmental dopamine in anisomycin induced amnesia in mice .International Conference on Integrative and Personalised Medicine and 42<sup>nd</sup> Annual Conference of Indian Pharmacological Society Dec 10-12, 2009 Kolkata India.**
- 26. Lahore AK, Surana AS, Ugale RR, Taksande BG, Chopde CT (2009) Involvement of nitric oxide synthase in relapse to morphine dependence.**

**International Conference on Integrative and Personalised Medicine and 42<sup>nd</sup> Annual Conference of Indian Pharmacological Society Dec 10-12, 2009 Kolkata India.**

- 27. Raut SG, Wankhede PP, Taksande BG, Kotagale NR, Ugale RR, Chopde CT (2009) Nicotine Withdrawal Syndrome in mice: Modulation by sigma receptors in nucleus accumbens. International Conference on Integrative and Personalised Medicine and 42<sup>nd</sup> Annual Conference of Indian Pharmacological Society Dec 10-12, 2009 Kolkata India.**
- 28. Lengure AN, Panpaliya VB, Chopde CT, Ugale RR, Taksande BG, Kotagale NR (2009) Adrenergic receptors in locus ceruleus: Their role in agmatine induced memory facilitation. International Conference on Integrative and Personalised Medicine and 42<sup>nd</sup> Annual Conference of Indian Pharmacological Society Dec 10-12, 2009 Kolkata India.**
- 29. Shirbhate SH, Dhobe BN, Badnore GS, Taksande BG, Ugale RR, Chopde CT (2009) Neurosteroid allopregnanolone attenuates nicotine induced behavioral sensitization in mice International Conference on Integrative and Personalised Medicine and 42<sup>nd</sup> Annual Conference of Indian Pharmacological Society Dec 10-12, 2009 Kolkata India.**

**(Research Presentations at National and Regional conferences)**

- 30. Chakraborty S, Lengure A, Taksande BG, Kotagale NR, Ugale RR, Chopde CT (2011) Influence of tegmental nitric oxide on ethanol induced reward. Symposium on Drug Metabolism and Pharmacokinetics 2011 held at National Institute of Pharmaceutical Education and Research on 11-13 Feb 2011**
- 31. Sharma AN, Ugale RR, Chopde CT. 2005. Reversal of ethanol withdrawal anxiety by nonbenzodiazepine anxiolytic etifoxine: role for neurosteroid allopregnanolone. 38th annual conference of Indian Pharmacological Society, Chennai, India.**
- 32. P Bhutada, K Hirani, NS Jain, RR Ugale and CT Chopde (2003). Effect of finasteride on sensitization to ethanol- induced locomotor stimulation at Pharmacology and Toxicology session, 55th Indian Pharmaceutical Congress, Chennai (Dec.19th – 21st).**
- 33. Kalaiyarasi C, K Hirani, N Jain, R Ugale, CT Chopde (2003). Antidepressant effect of adenosine receptor antagonists in Porsolt's forced swim test: modulation by serotonergic agents at Pharmacology and Toxicology session, 55th Indian Pharmaceutical Congress, Chennai 19- 21 Dec.**
- 34. P. Bhutada, RR Ugale, K Hirani, NS Jain and CT Chopde (2003). An evaluation of role of neuroactive steroid allopregnanolone in cataleptic effect of olanzapine: modulation by acute and chronic stress. National symposium on current trends in comparative endocrinology: Impact of molecular biology and biotechnology organized by Department of Zoology, Nagpur (Nov 27-29).**
- 35. K Hirani, AN Sharma, RR Ugale, NS Jain and CT Chopde (2003). Analgesic effect of ethanol and withdrawal induced hyperalgesia: Modulation by neuroactive steroid allopregnanolone. National symposium on current trends in comparative endocrinology: Impact of molecular biology and biotechnology organized by Department of Zoology, Nagpur (Nov 27-29).**

- 36. NS Mittal, K Hirani, R Ugale and CT Chopde (2002). Anticonvulsant activity of fluoxetine: involvement of GABAergic neurosteroid allopregnanolone. Prestigious GS Achari session of 35th Annual Conference of Indian Pharmacology Society, Gwalior (Achari award)**
- 37. Sharma Ajay N, Hirani Khemraj, Ugale Rajesh and CT Chopde (2002). Potential role of Neurosteroid Allopregnanolone in Anxiolytic action of ethanol withdrawal induced anxiety. 35th Annual Conference of Indian Pharmacology Society, Gwalior**
- 38. RR Ugale, K Hirani and CT Chopde (2002) Putative Role of Neuroactive Steroid Allopregnanolone in the Anticonvulsant Action of Etifoxine. Pharmacology and Toxicology session of the 54th Indian Pharmaceutical Conference, Pune.**
- 39. NS Mittal, R Ugale, K Hirani and CT Chopde (2002). Influence of Protracted Social Isolation and Estrous Cycle on Antidepressant Action of Fluoxetine: Modulation By Neurosteroid Allopregnanolone, Pharmacology and Toxicology session of the 54th IPC, Pune.**
- 40. U Tambe, K Hirani, NS Jain, RR Ugale and CT Chopde (2002). Effect of NMDA and Adenosine antagonists in the development of behavioral sensitization and its expression to Haloperidol induced catalepsy. Pharmacology and Toxicology session of the 54th IPC, Pune.**
- 41. K Hirani, MN Vyas, RR Ugale and CT Chopde (2001). Decreased neurosteroid conditions attenuate antidepressant like effect of ethanol in rodents. Southern Regional Conference of Indian Pharmacological Association, Sept 1-3, Mangalore.**
- 42. RT Khisti, RR Ugale and CT Chopde (2000). Stimulation of Adenosine A3 receptors induces catalepsy in mice. Oral presentation in 52nd IPC, Hyderabad.**
- 43. Preeti Koul, Chopde CT, Nishant Jain, Rajesh Ugale, Urmilla Tambe (2002) Effect of 5-HT3 antagonist ondansetron on haloperidol induced catalepsy. Poster presentation at 53rd IPC New Delhi.**
- 44. Rahul Khisti, Chopde CT, Rajesh Ugale, Nishant Jain, Mahesh Vyas (2002) Effect of allopregnanolone on dopamine mediated behavior. Poster presentation at 53rd IPC New Delhi.**
- 45. N Jain, K Hirani, R Ugale and CT Chopde (2002). Effect of Neurosteroid on tolerance and sensitization to locomotor stimulant effect of caffeine presentation in 53rd IPC New Delhi.**
- 46. RR Ugale, CT Chopde, NS Jain and K Hirani (2002). Role of neurosteroid allopregnanolone in behavioral actions of atypical antipsychotic Olanzapine. Indian Pharmacological Society, Indira Gandhi Medical College, Nagpur (Jan 10th-12th).**
47. Books published Nil
48. Research experiences



1. **Post doctoral Research Associate, Department of Psychiatry, Neurobiology of Alcoholism, University of Illinois at Chicago, VA medical center, Chicago, Illinois, USA**
2. **Visiting Scientist, University of Cagliari, Dept. of Toxicology, Cagliari, Italy, Europe**

49. Research Project details

**Co-PI**

**Title: Role of Epigenetics in fear memory consolidation and extinction**

**Funding agency: Department of Biotechnology, Govt. of India**

**Cost: 63,07,000 (Sixty three lacs seven thousand)**

**Duration: 2011-2014**

50. Research area (Interest)

**The central feature of drug addiction is loss of control over apparently voluntary acts of drug seeking and drug taking. It is now growing consensus that successful treatments for drug addiction, demands the investigations of molecular mechanisms by which drug-seeking behaviors are consolidated into compulsive use. I am interested in knowing how exactly the acquisition, consolidation and retrieval of addiction related memory occurs in CNS. In specific different neurotransmitters, their receptors and downstream signaling pathways, target genes and their regulation during different aspects of addiction viz; acute and chronic usage, reward, reinstatement, relapse, craving, withdrawal, sensitization and tolerance should thoroughly be investigated and neuroarchitecture of addiction formation be revealed. This will help to develop the pharmacological approach to stop the target gene formation or to inactivate the upstream pathways of these genes to prevent the addictive forces.**