

Date:27-09-2015

## CURRICULUM – VITAE

**Name** Dr. Vijay Kumar Goel

### **Personal Information:**

Date of Birth: 14-03-1977

Citizenship: Indian

Present Position: Assistant Professor

Official Address: Swami Shraddhanand College, Alipur, Delhi  
110036

Address for Correspondence: H.No. 2/55, Roop Nagar, Delhi-110007

Mobile No. 9910204686

E-mail address: vkgoel14@gmail.com

Date of Appointment in the College: 21-01-2015

Total Teaching Experience: 08 Months

Native Place: Delhi

### **Education:**

(starting from Graduation )

Degree	Subect	Year	Div.	College/ Department	University
B. Sc.	Analytical Chemistry	1997	I	Kirori Mal College	Delhi University
M. Sc.	Organic Chemistry	2000	I	L. R. College	C. C. S. University
Ph. D.	Structural Chemistry	2005	I	Department of Biophysics	AIIMS, New Delhi

## **Fellowship and Awards:**

- Junior Research Fellow (DST) March 2001.
- Qualified CSIR-UGC-NET (Chemical Sciences) Exam for lecturership, July, 2001
- Awarded CSIR Senior Research Fellowship (SRF) in April 2003.
- Awarded the DST Young Scientist award (July 2006).

## **International /National Positions and/or Awards/ Fellowships**

DST Young Scientist award (2006)

**List of Students Awarded Ph.D./M/Phil.:** NA

**List of Students Pursuing Ph.D./M.Phil. :** NA

**List if Students guided for /M.Tech./B.Tech/B.Sc./M.Sc./B.A./M.A. Projects etc. .**

**M. Pharm. Dissertation (2013)**

Ms. Supriya Jain  
DIPSAR, New Delhi

**List of students guided for Summer projects:** NA

**List of Students guided for Innovation Projects:** NA

REVIEWER INTENATIONAL/National JOURNALS: NA

**Member International/National Journal editorial Board etc.** NA

## **Research Projects/ Innovation Projects Undertaken :**

### **(i) Completed**

Structure based drug design and development of specific inhibitors of plasmodium falciparum proteins as anti-malarial agents (2006)

Funding Agency: DST, New Delhi

Amount: 1700000/=

### **(ii) Ongoing**

SSNC 301 (2015-2016) Solid State Fermentation of Urban Waste into Food through Pleurotus Cultivation

## Research Interest:

- Structure-based Drug-design
- Peptide Chemistry
- Molecular Modeling
- X-ray crystallography
- Analytical Chemistry

**Computer Literacy:** MS office, literature survey databases, Computer graphics and molecular modeling

## Contribution in International/ National Conferences/Seminars/Workshops :

1. Design of a  $\beta$ -turn II conformation with  $\alpha$ ,  $\beta$ -dehydro residues at (i+1) position: Syntheses crystal structure and molecular conformations of three peptides: (I) N-carbobenzoxy- $\Delta$ Val-Ala-Leu-OCH<sub>3</sub> (II) N-Carbobenzoxy- $\Delta$ Ile-Ala-Leu-OCH<sub>3</sub> and (III) N-Carbobenzoxy- $\Delta$ Leu-Ala-Leu-OCH<sub>3</sub>.  
Vijay Kumar Goel, **Sharmistha Dey, Jyoti Makker, Sohini Mukherji, P. Kumar, R. Vijayaraghavan and T. P. Singh;** Asian Cristallography Association Meeting, 18-21 November 2001, IISc., Bangalore.
2. Design of a  $\beta$ -turn II conformation with  $\alpha$ ,  $\beta$ -dehydro residues at (i+1) position: Syntheses crystal structure and molecular conformations of three peptides: (I) N-carbobenzoxy-  $\Delta$ Val-Ala-Leu-OCH<sub>3</sub> (II) N-Carbobenzoxy- $\Delta$ Ile-Ala-Leu-OCH<sub>3</sub> and (III) N-Carbobenzoxy- $\Delta$ Leu-Ala-Leu-OCH<sub>3</sub>.  
Madhumita Guha, **Vijay Kumar Goel, Sharmistha Dey, Jyoti Makker, Sohini Mukherji, P. Kumar, R. Vijayaraghavan and T. P. Singh;** Indian Biophysics Congress, January, 2002
3. Design of peptides with  $\alpha$ ,  $\beta$  - dehydro residues: Syntheses, Crystal structure and Molecular conformation of a tetra peptide: Boc-Ala- $\Delta$ Phe- $\Delta$ Phe-Ala-OCH<sub>3</sub>  
Vijay Kumar Goel, **Gaurav Sahni, Jyoti Makker, Sharmistha Dey and T. P. Singh** XXXII National Seminar on Crystallography, University of Jammu, 24-26 October 2002
4. Structure based rational design of the potent and selective inhibitors of PLA<sub>2</sub>  
Madhumita Guha, **Vijay Kumar Goel, A. P. Baxla, Jyoti Makker, Nagendra Singh, Sujata Sharma, Sharmistha Dey, A. Srinivasan and T. P. Singh;** National Symposium on Biophysics, Department of Biotechnology, IIT, Roorkee, 21-23 February 2003
5. Enzymes contain native peptides as their best inhibitors: Crystal structure of a complex formed between a chymotrypsin and its autocatalytically produced octapeptide at 2.2 Å resolution.  
Nagendra Singh, Talat Jabeen, Ipshita Rao, **Vijay Kumar Goel, Arun P. Baxla, Sharmistha Dey, Sameeta Bilgrami, Punit Kaur, Sujata Sharma, M. N. Gupta and T. P. Singh;** The National Symposium on Cellular and Molecular Biophysics, Jan 14-17, 2004, Convention Center, NIMHANS, Bangalore
6. Design of turn II conformation with  $\alpha$ ,  $\beta$  - dehydro residues at (i+1) position: Synthesis, crystal structure and molecular conformations of two peptides: (I) N-carbobenzoxy- $\Delta$ Val-Val- $\Delta$ Phe-Ile-OCH<sub>3</sub> (II) N-Carbobenzoxy- $\Delta$ Val-Leu- $\Delta$ Phe-Leu-OCH<sub>3</sub>.

**V. K. Goel**, A. P. Baxla, R. K. Somvanshi, R. Padma, S. Dey and T.P. Singh; The Sixth Conference of the Asian Crystallographic Association, Hong Kong, Jan, 2005. (POSTER PRESENTATION)

7. Design Of Peptides With  $\alpha$ ,  $\beta$  - Dehydro Residues: Syntheses, Crystal Structures And Molecular Conformations Of Two Tetrapeptides : Cbz -  $\Delta$ Val - Val -  $\Delta$ Phe - Ile - OCH<sub>3</sub> AND Cbz -  $\Delta$ Val - Leu -  $\Delta$ Phe - Leu - OCH<sub>3</sub>. **V. K. Goel**, A. P. Baxla, R. K. Somvanshi, R. Padma , S. Dey and T. P. Singh. XXXIII National Seminar on Crystallography (8-10, January, 2004) National Chemical Laboratory, Pune.
8. Structural Genomics and Structure - based Rational Drug - design against Inflammation, Rheumatism and Arthritis.  
S. Dey, R. K. Somvanshi, **V. K. Goel**, P. Ramakrishnan, S. Mittal, N. Singh, A.S. Ethayathulla, S. Sharma and T. P. Singh. 2<sup>nd</sup> International conference on Recent Advances in Biomedical and Therapeutic Sciences, 6<sup>th</sup> – 8<sup>th</sup> Jan 2005 organized by Institute of Biomedical Sciences, B.U. Jhansi. (**ORAL PRESENTATION**)
9. Design of  $3_{10}$  – helical conformations in peptides with  $\alpha$ ,  $\beta$  - dehydro-residues: syntheses, crystal structures and molecular conformations of three tetrapeptides : Cbz -  $\Delta$ Val - Val -  $\Delta$ Phe - Ile - OCH<sub>3</sub>, Cbz - $\Delta$ Val - Leu -  $\Delta$ Phe - Leu - OCH<sub>3</sub> AND Cbz -  $\Delta$ Ile - Ala -  $\Delta$ Phe - Ala - OCH<sub>3</sub>.  
Padma Ramakrishnan, **Vijay K. Goel**, Rishi K. Somvanshi, Seema Mittal , Sharmistha Dey and T. P. Singh. "Recent trends in molecular and medical biophysics" organized by Indian Biophysical Society & Department of Physics, School of Basic Medical Sciences, University of Pune, January 22-25, 2005. (POSTER PRESENTATION)
10. Design of Peptides with Consecutive Dehydro Phenylalanine Residues.  
R. K. Somvanshi, **V. K. Goel**, P. Ramakrishnan, S. Mittal, S. Dey and T. P. Singh. 2<sup>nd</sup> International conference on Recent Advances in Biomedical and Therapeutic Sciences, 6<sup>th</sup> – 8<sup>th</sup> Jan 2005 organized by Institute of Biomedical Sciences, B.U. Jhansi. (**BEST POSTER AWARD**)
11. Design of peptides with  $\alpha$ ,  $\beta$ -dehydro - residues: Synthesis and crystal structure of a tripeptide N - benzyloxycarbonyl -  $\Delta$ Val -  $\Delta$ Phe - L - Ala - OCH<sub>3</sub>.  
Seema Mittal, **V. K. Goel**, R. K. Somvanshi, P. Ramakrishnan, Sharmistha Dey and Tej P. Singh. 2<sup>nd</sup> International conference on Recent Advances in Biomedical and Therapeutic Sciences, 6<sup>th</sup> – 8<sup>th</sup> Jan 2005 organized by Institute of Biomedical Sciences, B.U. Jhansi.
12. Effects of branched beta-carbon dehydro-residues on peptide conformation  
**V. K. Goel**, R. K. Somvanshi, I. A. Sheikh, M. Saxena, S. Dey, T. P. Singh. International Biophysics Congress, France, August 2005 (**BEST POSTER**)
13. Design of peptides with consecutive dehydro phenylalanine residues  
R. K. Somvanshi, **V. K. Goel**, I. A. Sheikh, M. Saxena, S. Dey, T. P. Singh  
International Biophysics Congress, France, August 2005
14. Structure-Based Drug-Design  
**Vijay Kumar Goel**  
**Invited Lecture**, Lecturer's Educational Programme (CPDHE) Delhi University, September - October, 2006

**LIST OF PUBLICATION (with title of the papers/articles, list of authors along with journal title , year of publication, ISSN/ISBN No. and Impact factor) :**

S.No.	Authors	Title	Impact Factors / citation	Journal Name/ ISSN No./ (SNIP/ SJR)	Year	Vol./ no.	Pg no.
1	Puja Hazari, Gauri Shukla, <b>Vijay Goel</b> , Krishna Chuttani, Nitin Kumar, Rajnish Sharma and Anil Mishra	Synthesis of Specific SPECT-Radiopharmaceutical for Tumor Imaging Based on Methionine: <sup>99m</sup> Tc-DTPA-bis (methionine)	4.8/27	<b>Bioconjugate Chemistry</b> ISSN: 1043-1802/ (1.129/ 1.604)	2010	21 (2)	229
2	<b>V. K. Goel</b> , R. K. Somvanshi, S. Dey and T. P. Singh	Effects of branched beta carbon dehydro residues on peptide conformation: Syntheses, crystal structures and molecular conformations of Cbz- $\Delta$ Ile-Ala- $\Delta$ Phe-Ala-OCH <sub>3</sub> and Cbz- $\Delta$ Val-Leu- $\Delta$ Phe-Leu-OCH <sub>3</sub>	1.6/8	<b>J. Peptide Res.</b> ISSN: 1397-002X	2005	66(2)	68
3	<b>V. K. Goel</b> , S. Dey, R. K. Somvanshi and T. P. Singh	Design of peptides with $\alpha$ , $\beta$ - dehydro residue: Crystal Structure and Molecular conformation of (i) Boc-Leu- $\Delta$ Phe-Leu-OCH <sub>3</sub> and (ii) Boc-Ala- $\Delta$ Phe-Ala-OCH <sub>3</sub> .	1.9/8	<b>Structural Chemistry</b> ISSN: 1040-0400 / (0.6/ 0.439)	2005	16 (4)	385
4	<b>V. K. Goel</b> , S. Dey and T. P. Singh	Design of peptides with alpha-beta dehydro residue: Synthesis, Crystal Structure and Molecular conformation of Cbz- $\Delta$ Val- $\Delta$ Phe-Ala-OCH <sub>3</sub> .	1.6/3	<b>J. Mol. Struct.</b> ISSN: 0022-2860/ (0.81 / 0.405)	2005	738	189
5	S. Dey, R. Vijayaraghavan, <b>V. K. Goel</b> , S. Kumar, P. Kumar, and T. P. Singh	Design rules for peptides with $\alpha$ , $\beta$ -dehydro-residues: Synthesis of a model peptide Boc-Ile- $\Delta$ Ala-OCH <sub>3</sub> and its crystal structures obtained from two different solvents.	1.6/9	<b>J. Mol. Struct.</b> ISSN: 0022-2860/ (0.81 / 0.405)	2005	737	109
6	R, Vijayaraghavan, <b>V. K. Goel</b> , S. Dey, and T. P. Singh	Design of peptides with alpha-beta dehydro residue: Crystal Structure and Molecular conformation of Boc Phe- $\Delta$ Phe-Ile-OCH <sub>3</sub>	1.9/6	<b>Structural Chemistry</b> ISSN: 1040-0400 / (0.6/ 0.439)	2005	16(4)	445
7	R. K. Somvanshi, <b>V. K. Goel</b> , S. Dey and T. P. Singh	Design of peptides with alpha-beta dehydro residue: Crystal Structure and Molecular conformation of Boc-Ala- $\Delta$ Phe- $\Delta$ Phe-Phe-OCH <sub>3</sub>	0.5	<b>Journal of Chemical Crystallogr.</b> ISSN: 1074-1542 / (0.336/ 0.248)	2005	35	761

8	V. K. Goel, M. Guha, A. P. Baxla, S. Dey and T. P. Singh	Design of peptides with $\alpha$ , $\beta$ -dehydro-residues: Crystal Structure of Boc-Leu- $\Delta$ Phe-Ile-OCH <sub>3</sub> , C <sub>27</sub> H <sub>43</sub> N <sub>3</sub> O <sub>7</sub>	1.6/12	J. Mol. Struct. ISSN: 0022-2860/ (0.81 / 0.405)	2003	658	135
9	J. Makker, G. Sahini, V. K. Goel, S. Dey and T. P. Singh	Crystal structure of tertiarybutyloxycarbonyl-L-Ala- $\Delta$ Phe- $\Delta$ Phe-L-Ala-OCH <sub>3</sub> , C <sub>30</sub> H <sub>36</sub> N <sub>4</sub> O <sub>7</sub>	0.2	Z. Kristallogr. NCS ISSN: 1433-7266/ (0.124/ 0.143)	2003	218	55
10	V. K. Goel, S. Dey, A. P. Baxla and T. P. Singh	Crystal structure of N-acyl-(tert-butyloxycarbonyl-alanyl) dicyclo- hexylurea, C <sub>21</sub> H <sub>37</sub> N <sub>3</sub> O <sub>4</sub>	0.2	Z. Kristallogr. NCS ISSN: 1433-7266/ (0.124/ 0.143)	2003	218	57
11	Rajnikant, Dinesh, A. S. Shawl, T. P. Singh, V. K. Goel and Bandhan Sharma	Crystallographic analysis of 9-(3-methylbut-2-enyloxyfurano)[3,2-g] benzopyran-2-one	0.5	Journal of Chemical Crystallogr. ISSN: 1074-1542 / (0.336/ 0.248)	2005	35	913

**List of Books/Monographs Published** (along with the Publisher's name and ISBN No. and year of Publication) **NA**

**Articles in Edited Books/Conference Proceedings/Book Chapter Published**( along with title of the book, publisher and ISBN No and year of publication). **NA**

**Journal Proceedings/ Journals Edited** (with title of the journal , year of publication etc.) **NA**

**Popular articles published / Articles published in newspapers etc.** **NA**

### Professional Association and Membership of Learned Bodies

(i) Indian Peptide Society (Life Member)

**Any Other information:**

### Professional Experience

- |  |  |                    |
|--|--|--------------------|
| 1) <b>Assistant Professor</b><br>(Ad-hoc)                        | Swami Shraddhanand<br>College, Delhi Univ. | Since January 2015 |
| 2) <b>Senior Manager, R&amp;D</b>                                | Bioconcept Labs Ltd.                       | 2013 - 2014        |
| 3) <b>Senior Scientist, R&amp;D</b><br>(Head, Peptide Chemistry) | Panacea Biotec Ltd.<br>New Delhi           | <b>2008 - 2013</b> |
| 4) <b>Research Associate</b>                                     | INMAS, Delhi                               | 2006 - 2007        |
| 5) <b>Scientist 'B'</b>  | C D R I, Lucknow                           | 2005 - 2006        |