

## CURRICULUM VITAE

(July2017)

### **RAKESH KUMAR TIWARI, Ph. D.**

*Assistant Professor of Biopharmaceutical and Biomedical Sciences*

Chapman University School of Pharmacy, Chapman University

Harry and Diane Rinker Health Sciences Campus

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<http://sites.chapman.edu/tiwari/>

## RESEARCH INTEREST

**Medicinal Chemistry:** Designing of CN2097 analogue and peptidomimetic for the treatment of neurodegenerative disease. Rational drug discovery and high throughput screening (HTS) of small molecules in search of tyrosine kinase inhibitors (e.g. Src family of Tyrosine Kinases) which could be used in the treatment of cancer; design and synthesis of selective bisubstrate protein tyrosine kinase inhibitors.

**Drug Delivery using peptide Chemistry:** Application of peptide chemistry in designing peptide-drug conjugates for efficient drug delivery to tumor using folate, fibronectin, and integrin receptors.

**Synthetic Chemistry:** Developing synthetic methodology for biologically active organic compounds e.g. heterocyclic, organophosphate, and small molecule.

## EDUCATION

**2002-2006** Ph. D in Organic/Medicinal Chemistry

Dr. B.R. Ambedker Center for Biomedical Research (ACBR)

University of Delhi, Delhi-07, India

Dissertation title: *“Synthesis of substituted 1,2,3,4-tetrahydropyrazino[1,2-a]indoles and 1,2,3,4,-tetrahydroisoquinolines via intramolecular cyclization using benzotriazole methodology”.*

Advisor: Professor Akhilesh Kumar Verma

**2000-2002** M. Sc. (Agrochemical and Pest Management), University of Delhi, Delhi-07, India

Dissertation title: *“Technologies involved in toxicity reduction of effluents from pesticide industries”.* Advisor: Dr. P. K. Patanjali

**1997-2000** B.Sc. (General)

Swami Shraddhanand College, University of Delhi, Alipur, Delhi-36, India

## PROFESSIONAL EXPERIENCE

### (A) Research

**09/2013-Present: Assistant Professor of Biopharmaceutical and Biomedical Sciences**

Chapman University School of Pharmacy (CUSP), Chapman University,  
Harry and Diane Rinker Health Sciences Campus  
9401 Jeronimo Rd, Irvine, CA 92618, California.

**04/2013-07/2013: Assistant Professor of Life Sciences**

Dept. of Life Science, School of Natural Sciences,  
Shiv Nadar University, Greater Noida, U.P. India

**01/2013-03/2013: Senior Post doctoral Research Associate**

Dept. of Biomedical & Pharmaceutical Sciences, College of Pharmacy,  
University of Rhode Island, Kingston, Rhode Island, USA and Dept. of  
Molecular Pharmacology, Physiology and Biotechnology, Brown  
University, Providence, RI, USA

- Folate mediate anticancer drug delivery using doxorubicin folic acid conjugates with disulfide linkage and or with amide linkage with transporter
- Synthesis of peptide and peptidomimetics for nanomaterial and drug delivery

**01/2009-12/2012: Post Doctoral Research Associate**

Dept. of Molecular Pharmacology, Physiology and Biotechnology, Brown  
University, Providence, RI, USA and Dept. of Biomedical &  
Pharmaceutical Sciences, College of Pharmacy, University of Rhode  
Island, Kingston, Rhode Island, USA

- Development of neuroprotective PDZ-domain inhibitors for the treatment of Stroke. (*American heart association postdoctoral fellowship award for 2 years from founder affiliate, AHA, USA*)
- Synthesis of high affinity, cell permeable and plasma stable PDZ domain targeting macrocycles (CN2097) using Fmoc/*t*Bu solid phase synthesis
- Evaluation of the human plasma and microsomal stability of the CN2097 macrocycles targeting PDZ domain
- Synthesis of Heterocyclic compounds for Src Tyrosine Kinase Inhibitor
- Designing of Src SH3 domain binding ligands using conformationally

constrained peptides

- Synthesis of nucleoside mono-, di-, and triphosphoramidates from the solid phase *cyclosaligenyl* phosphitylating reagents
- Designing and synthesis of Anti-HIV nucleoside prodrug of bis- (*cyclosaligenyl*) analogues

**02/2007-02/2008**

**Post Doctoral Fellow**

Dept. of Cell and Molecular Biology and Dept. of Biomedical & Pharmaceutical Sciences, College of Pharmacy, University of Rhode Island, Kingston, Rhode Island, USA

- Synthesis of highly potent and strongest known ligand for Src SH3 domain with the Kd of 20nM
- Synthesis of Src SH2 domain phosphopeptide ligands to investigate their mechanism of protein-protein interaction with Src SH2 domain
- Development of High Throughput Screening (HTS) assay for Src Tyrosine Kinases for screening and assaying the compound libraries

**09/2006-02/2007**

**Principal Investigator:** Fast Track, DST Project, Govt. of India, INDIA

**Title:** *Design and synthesis of new class of DNA intercalating agents*

**Institute:** Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, Delhi-110007, India

- Synthesis of the novel polycyclic heterocyclic compounds for their application as DNA intercalating agent

**05/2002-08/2006**

**Research Scholar (Ph.D. candidate)**

Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi, Delhi-110007, India

- Synthesis of novel substituted-1,2,3,4-tetrahydropyrazino[1,2-a]indoles using benzotriazole methodology
- Synthesis of novel 1,2-disubstituted-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolines using benzotriazole methodology
- Synthesis of heterocyclic compounds using ionic liquids
- Antimicrobial activity of tetrahydropyrazino[1,2-a]indoles and tetrahydroisoquinolines against the fungal and bacterial strain

## **(B) Teaching Experience**

09/2013 – Present **Assistant Professor of Biopharmaceutical and Biomedical Sciences**

Chapman University School of Pharmacy, Chapman University  
Harry and Diane Rinker Health Sciences Campus  
9401 Jeronimo Rd., Irvine, CA 92618-1908, USA

- Developed Curriculum/Syllabus for Pharmacy Courses
- Assisted in the purchase of equipment and development of Research Facility
- Performing research in the area of Medicinal Chemistry of Neurotherapeutic
- Developing peptide-drug conjugates for tumor targeting delivery system
- Taught PharmD and MSPS classes at CUSP

04/2013-07/2013 **Assistant Professor**

Dept. of Life Science, School of Natural Sciences,  
Shiv Nadar University, Greater Noida, U.P. India

- Taught undergraduate/graduate courses: Bioanalytical Techniques
- Design and Development of BS (Biotechnology) Courses
- Faculty hiring and recruitment. Development of Research lab and infrastructure

05/2002-08/2006 **Teaching Assistant of Organic Chemistry**

Dr. B. R. Ambedkar Center for Biomedical Research, University of  
Delhi, Delhi-110007, India

- Taught undergraduate/graduate laboratory courses: General Chemistry/Organic Chemistry, and Qualitative Organic Analysis, synthesis, characterization of various derivatives. Responsibilities included maintenance of laboratory instrumentation, and preparation of reagents, recitation sessions

04/2007-03/2013 Supervised and Trained many summer, masters and graduate students

- Dept. of Biomedical & Pharmaceutical Sciences, College of Pharmacy, University of Rhode Island, Kingston, Rhode Island, USA

09/2011-12/2011 Taught course #BPS 525, with special topic in peptide synthesis to graduate students with Prof. K. Parang at Dept. of Biomedical & Pharmaceutical Sciences, College of Pharmacy, University of Rhode Island, Kingston, Rhode Island, USA

### **UNIVERSITY SERVICE**

#### **Chapman University (CU)**

2013 - Present CUSP Senator in Faculty Senate Chapman University

2014 - Present Member in Science Safety Committee Chapman University

2014 - Present Provide training, internship, and mentoring to various undergraduate students of Chapman University for scholarly activity and research. (e.g. Matthew Etesham, Jimmy Clark, Stephani Buchholz, Taryn Miyake, Andrew Shiroishi, Young Kim, Harmanpreet Bhatti, Mohini Bawa, Atsuhiko Suzuki, Sarika Chowdhry, Chrys-Michel Esseau-Thomas, Perrin Guyer, Katarina Falero, Tim Kristedja.)

2014 – Present Capstone Advisor for multiple undergraduate students from Chapman University (Matthew Etesham, Jimmy Clark, Stephani Buchholz, Andrew Shiroishi, Young Kim, Mohini Bawa, Atsuhiko Suzuki, Perrin Guyer)

2014 - 2015 External Member in the Faculty Search Committee at the Schmidt College.

2015 Mentor for Summer Undergraduate Research Fellow (SURF): Andrew Shiroishi, and Mr. Young Kim

#### **Chapman University School of Pharmacy (CUSP)**

2015 - 2018 Faculty Advisor for Mr. Stephen Chiang, Mr. Amrit Paul, Ms. Esther Shin, Ms. Valeria Jimenez, Ms. Sara Audi, and Ms. Mahshid Valizadeh, (Pharm. D. Class of 2018)

2014 - 2016 Member of Curriculum/Academic Affairs Committee

2014 - 2016 Member of Therapeutic Subcommittee

2016 - 2019 Member of Assessment Committee

2014 - 2015 Member of Admission Committee (partial)

2014 - Present Faculty Interviewer for Pharm D admission

2014 - 2016	Thesis Committee member for students in MSPS program (Ms. Soliel Doman, Ms. Saghar Mozaffari, and Ms. Caretta Reesse)
2016 - Present	Thesis Committee member for students in MSPS program (Mr. Khalid, Mr. Sammy, and Mr. Aymen)
2014 - 2016	Mentor for Mrs. Neda Riahifard, MSPS student
2015 - 2017	Mentor for Mr. Shang Eun Park (Paul), MSPS student
2013 - Present	Member of Search Committee in BPS department at CUSP
2014 - 2015	Member of Search Committee in PHP department at CUSP
2014	Member of Graduate and Research Program Committee (GRPC)
2013 – 2014	Member of Dean's Purchase Committee for Research Equipment's and Teaching Supply.

## **TEACHING**

### **Pharm. D. Courses**

- Fall 2015: PHARM 601 - Principles of Drug Action (4 Units, Instructor)
- Spring 2016: PHRM 531 - Integrated Therapeutics: Psy/Neuro (5 Units, Course Co-Coordinator)
- Summer 2016: PHRM 711-01- Capstone Project (1 Unit, Mentor and Advisor)
- Summer 2016: PHRM 682-02 -Student Faculty Research Elective Course (1 Unit, Coordinator)
- Fall 2016: PHARM 601 - Principles of Drug Action (4 Units, Instructor)
- Spring 2017: PHRM 531 - Integrated Therapeutics: Psy/Neuro (5 Units, Course Co-Coordinator)

### **Graduate Courses**

- Fall 2014: PHS 602 - Drug Discovery and Development (3 Units, Instructor)
- Fall 2014: PHS 702 - Pharmaceutical Sciences Research Methods (3 Units, Instructor)
- Spring 2015: PHS 641 - Seminar in Pharmaceutical Sciences I (1 Unit, Coordinator)
- Fall 2015: PHARM 612 - Advanced of Principles of Drug Action (4 Units, Instructor)
- Fall 2015: PHS 602 - Drug Discovery and Development (3 Units, Instructor)
- Spring 2016: PHS 641- Seminar in Pharmaceutical Sciences I (1 Unit, Coordinator)
- Spring 2016: PHS 641 - Seminar in Pharmaceutical Sciences II (1Unit, Coordinator)
- Spring 2016: PHS 702 - Pharmaceutical Sciences Research Methods (3 Units, Instructor)
- Fall 2016: PHARM 612 - Advanced of Principles of Drug Action (4 Units, Instructor)
- Spring 2017: PHS 641- Seminar in Pharmaceutical Sciences I (1 Unit, Coordinator)
- Spring 2017: PHS 793 - Seminar in Pharmaceutical Sciences I (1Unit, Coordinator)
- Fall 2014-Present: BCHEM-491/PHRM-491/CHEM-499/ Student - Faculty Independent Research and/or Creative Activity 291/491/682 (1-3 Units, Instructor/Coordinator)

## **FUNDED GRANT PROPOSAL**

- Brown University funded contract from NIH R21 grant. Role: PI for subcontract. (Total amount: \$10,000) (October 2016 to May 2017)
- Rhode Island Hospital-Brown University funded contract from NIH R01 grant entitled “*A novel cyclic peptide-based treatment for TBI*”. Role: PI for subcontract. (Total amount: \$60,000) (July 2016 to June 2021)
- Chapman University Faculty Research & Development Council awarded Personalized Education Grant entitled “*Developing teaching tool for Med Chem course*”. Role: PI. (Total grant amount: \$2990.00) (June 2016 to May 2017)
- Chapman University Faculty Development Council awarded scholarly/creative activity grant entitled “*Design, Synthesis, and Evaluation of Histidine-Arginine Peptides*”. Role: PI. (Total grant amount: \$3000.00). (June 2015 to May 2016)
- Chapman University Faculty Research and Development Council awarded scholarly/creative activity grant entitled “*Design and Evaluation of Tumor Targeting Peptide-Drug Conjugates as Tumor-Targeting Drug Delivery System*”. Role: PI. (Total grant amount: \$4990.00) (June 2014 to May 2015)
- Alexion Industry funded Grant entitled “*A Novel BDNF Potentiator for Treating Cognitive Dysfunction in Angelman Syndrome*”. Role: Co-PI. (Total grant: \$30,079) (January 2014 to May 2016)
- American Heart Association Postdoctoral Grant entitled (11POST5820019) “*Development of Neuroprotective PDZ-Domain Inhibitors for Treatment of Stroke*”. (Role: PI) (Total grant amount: \$94,000) (January 2011 to December 2012)
- Department of Science & Technology, Govt. of India, Fast Track entitled “*Synthesis of the novel polycyclic heterocyclic compounds for their application as DNA intercalating agent*”. Role: PI. (Total grant: ~\$30,000). (September 2006 to February 2007)

## **AWARDS**

- Selected for participation in 4<sup>th</sup> Annual Training in Neurotherapeutics Discovery and Development for Academic Scientists Course, March 16 - 19, 2016 supported by NIH.
- 2016 Graduate Scholarly Creative Grant for Mr. Shang Eun Park (Paul), (PI current MSPS student in CUSP).

- 2015 Fall Undergraduate Scholarly Creative Grant for Mr. Young Kim, Ms. Sarika Chowdhry, and Mr. Chrys-Michel Esseau-Thomas (Undergraduate students, CU).
- 2015 Office of Sponsor Project, CU travel award to PI to attend NSF workshop.
- 2015 Graduate Scholarly Creative Grant for Ms. Neda Riahifard (PI current MSPS student in CUSP).
- 2015 Undergraduate Scholarly Creative Grant for Ms. Stephani Buchholz, Mr. Young Kim and Mr. Andrew Shiroishi (Undergraduate students, CU).
- 2014 Undergraduate Scholarly Creative Grant for Mr. Matthew Etesham (Undergraduate student, CU).
- 2014 Office of Sponsor Project, CU travel award to PI to attend NIH workshop.
- 2013 University of Rhode Island, **Postdoctoral Fellow Research Excellence Award** for Life Sciences, Physical Sciences and Engineering
- **American Heart Association (AHA) Postdoctoral Fellowship award** for January 2011 to December 2012 from Founder Affiliate, AHA, USA
- Young Scientist Project Award for grant entitled “*Design and synthesis of New class of DNA intercalating Agent*” under Fast Track Scheme for September 2006 to August 2008 from Department of Science & Technology, Govt. of India, India
- “Jean and Ashit Ganguly Educational Trust Award” for Junior Research Fellow (2003-2005) and Senior Research Fellow (2005-2006) from University of Delhi, Delhi-07, India
- Merit Scholarship for first position award in college for constitutive three years for B.Sc. (1997-2000)
- Best poster presentation award at International Conference on Recent Advances in Biomedical and Therapeutic Sciences (13<sup>th</sup> to 15<sup>th</sup> Jan. 2004 ) held by Bundelkhand University, Jhansi, UP, INDIA in Collaboration with University of Netherland at Jhansi, UP, India

### **PROFESSIONAL MEMBERSHIPS**

- 2007-present: Member of American Chemical Society (ACS), USA
- 2009-present: Member of College of Pharmacy Professional Research Society, URI, USA
- 2014-present: Member of American Association of Colleges of Pharmacy (AACP)
- 2014-present: Member of American Association of Pharmaceutical Scientists (AAPS)
- 2015-present: Member of American Association for Advancement of Science (AAAS)
- 2015-present: Member of American Peptide Society (APS), USA



### **GRANT REVIEWER**

- 2014: Member of International Grant Reviewer for proposals in the discipline of physical, pharmaceutical, and biological sciences at National Centre of Science and Technology Evaluation, Ministry of Education and Science, Republic of Kazakhstan, Astana, Kazakhstan.

### **EDITORIAL SERVICE**

- 2012-present: Member of Editorial Advisory Board, Research & Reviews: Journal of Medicinal Chemistry (Shastri Education Trust, Bellary, India)
- 2013-present: Member of Editorial Board for journals: International Journal of Molecular Genetics (IJMG), Developmental Microbiology and Molecular Biology (DMMB), International Journal of Biotechnology and Bioengineering Research (IJBBR), International Journal of Applied Biotechnology & Biochemistry (IJABB), and Global Journal of Biotechnology and Biochemistry Research (GJBBR) (Shastri Education trust, India).
- 2014-2015: **Editor:** American Journal of Pharmacological Sciences, Science and Education Publishing, USA. (Two year term: 1<sup>st</sup> Jan 2014 - 30<sup>th</sup> December 2015)
- 2014-present: Editorial board member, American Journal of Pharmacological Sciences, Science and Education Publishing, USA.
- 2014-2016: **Managing Editor:** International Journal of Medical and Pharmaceutical Case Reports (IJMPC) (Science Domain International Publication, USA)

### **REVIEWER OF SCIENTIFIC JOURNALS**

1. Journal of American Chemical Society (ACS) (IF: 13.038)
2. International Journal of Pharmaceutics (Elsevier) (IF: 3.997)
3. International Journal of Biological Macromolecules (Elsevier) (IF: 3.138)
4. Journal of Medicinal Chemistry from ACS (IF: 5.589)
5. Current Medicinal Chemistry (Bentham Science Publishers) (IF: 3.455)
6. Dalton Transactions (Royal Society of Chemistry, UK) (IF: 4.177)
7. Current Pharmaceutical Design (Bentham Science Publisher) (IF: 3.052)
8. ACS Medicinal Chemistry Letters (ACS) (IF: 3.355)
9. ChemMedChem (Wiley-VCH Verlag GmbH & Co. KGaA) (IF: 2.98)
10. Bioorganic & Medicinal Chemistry (Elsevier): (IF: 2.923)

11. European Journal of Medicinal Chemistry (Elsevier): (IF: 3.902)
12. Chemistry and Physics of Lipids (Elsevier) (IF: 2.901)
13. Chemistry Open (Wiley-VCH Verlag GmbH & Co. KGaA) (IF: 1.207)
14. Bioorganic & Medicinal Chemistry Letters (Elsevier) **IF: 2.486**
15. Journal of Neuroscience Research (John Wiley Publication) (IF: 2.689)
16. Journal of Food Science (IFT Publication) (IF: 1.649)
17. Research on Chemical Intermediates (RINT) (Springer Publication) (IF: 1.833)
18. Letters in Drug Design and Discovery (Bentham Publication) (IF: 0.974)
19. Medicinal Chemistry (Bentham Publication) (IF: 1.458)
20. International Research Journal of Pure and Applied Chemistry (Science Domain International Publisher)
21. Canadian Chemical Transactions, (Borderless Science Publishing 2013)
22. Organic Chemistry Letters (Integrated Science Publication)
23. Research & Review: Journal of Medicinal Chemistry (RRJMC) (Shastri Education trust, India)
24. International Journal of Molecular Genetics (IJMG) (Shastri Education trust, India)
25. Developmental Microbiology and Molecular Biology (DMMB) Shastri Education trust, India)
26. International Journal of Biotechnology and Bioengineering Research (IJBBR)
27. International Journal of Applied Biotechnology & Biochemistry (IJABB)
28. Global Journal of Biotechnology and Biochemistry Research (GJBBR) (IF: 1.211)
29. American Journal of Pharmacological Sciences. (Science and Education Publishing, USA)
30. African Journal of Biotechnology (Academic Publication) (IF: 0.44)

#### **PEER REVIEWED PUBLICATIONS (TOTAL: 81)**

(\* denote as corresponding authorship, IF: Impact factor)

81. N. Riahifard, K. Tavakoli, J. Yamaki, K. Parang\*, **R. Tiwari\***. Synthesis and Evaluation of Antimicrobial Activity of [R<sub>4</sub>W<sub>4</sub>K]-Levofloxacin and [R<sub>4</sub>W<sub>4</sub>K]-Levofloxacin-Q Conjugates. *Molecules*, **2017**, 22(6). PMID: 28594345. DOI: 10.3390/molecules22060957. **IF- 2.86.**
80. S. Darwish, K. Parang, J. Marshall, D. J. Goebel, **R. Tiwari\***. Efficient synthesis of CN2097 using in situ activation of sulfhydryl group. *Tetrahedron Letters*, **2017**, 58, 3053-3056. DOI: 10.1016/j.tetlet.2017.06.066. **IF- 2.19.**

79. M. Sharma, N.S. El-Sayed, H. Do, K. Parang, **R. K. Tiwari\*** and H. Aliabadi\*. Tumor-targeted delivery of siRNA using fatty acyl-CGKRK peptide conjugates. *Scientific Report* (In Press), **2017**. DOI: 10.1038/s41598-017-06381-y. **IF- 4.25**.
78. S. K. R. Kotla, J. K. Vandavasi, Jeh-Jeng Wang, K. Parang and **R. K. Tiwari.\*** Palladium-catalyzed intramolecular cross-dehydrogenative coupling: synthesis of fused imidazo[1,2-a]pyrimidines and pyrazolo[1,5-a]pyrimidines. *ACS Omega*, **2017**, 2(1), 11–19. doi: 10.1021/acsomega.6b00417. **IF- Not Yet**.
77. **R. K. Tiwari,\*** A. Brown, A. N. Shirazi, J. Bolton, A. Tse, G. Verkhivker,\* K. Parang,\* and G. Sun\*. Design, synthesis, and evaluation of dasatinib-amino acid and dasatinib-fatty acid conjugates as Protein Tyrosine Kinase Inhibitors. *ChemMedChem*, **2017**, 12(1), 86-99. doi: 10.1002/cmdc.201600387. PMID: 27875633. **IF- 2.98**.
76. S. Pal, D. Choudhary, M. Jainth, S. Kumar; **R. Tiwari**, A. K. Verma. Regio- and stereoselective tandem synthesis of oxazolo fused pyridoindoles and benzofurooxazolo pyridines from ortho-alkynylaldehydes. *Journal of Organic Chemistry*, **2016**, 81(19), 9356-9371. doi: 10.1021/acs.joc.6b02062. PMID: 27626809. **IF- 4.785**.
75. N.S. El-Sayed, A. N. Shirazi, M.G. El-Meligy, A.K. EL-Ziaty, Z.A. Nagieb\*, K. Parang\*, **R. K. Tiwari\***. Design, synthesis, and evaluation of chitosan conjugated GGRGDSK peptides as a cancer cell-targeting molecular transporter. *International Journal of Biological Macromolecules*, **2016**, 87, 611-622. PMID: 26976071. **IF- 3.138**
74. D. Weerakkody, A. Moshnikova, N. S. El-Sayed, R. C. Adochite, G. Slaybaugh, J. Golijanin, **R. K. Tiwari**, O.A. Andreev, K. Parang, Y. K. Reshetnyak. Novel pH-Sensitive Cyclic Peptides. *Scientific Report* **2016**, 12(6), 31322. doi: 10.1038/srep31322. PMID: 27515582. **IF- 5.228**
73. A. Banerjee, N. Sayeh, A. N. Shirazi, **R. Tiwari**, K. Parang, A. Yadav. Arginine-rich cyclic peptides enhance nuclear targeted delivery of anti-cancer agents: Molecular insights. *Letters in Drug Design & Discovery*, **2016**, 13, 591-604. **IF- 0.974**
72. A. K. Danodia, R. K. Saunthwal, M. Patel, **R. K. Tiwari**, A. K. Verma. Pd-catalyzed one-pot sequential unsymmetrical cross-coupling reactions of aryl/heteroaryl 1,2-dihalides. *Org Biomol Chem*. **2016**, 14(27), 6487-6496. doi: 10.1039/c6ob01049k. PMID: 27286137. **IF- 3.562**
71. A. N. Shirazi, N. S. El-Sayed, D. Mandal, **R. K. Tiwari**, K. Tavakoli, M. Estesham, K. Parang. Cysteine and arginine-rich peptides as molecular carriers. *Bioorg Med Chem Lett*. **2016**,

- 26(2), 656-661. doi: 10.1016/j.bmcl.2015.11.052. **PMID:** 26631317. **IF- 2.486**
70. A. N. Shirazi, N.S. El-Sayed, K. Tavakoli, **R. K. Tiwari**, K. Parang. Cyclic Peptide Containing Hydrophobic and Positively Charged Residues as a Drug Delivery System for Curcumin. *Curr Drug Deliv.* **2016**, 13(3), 409-417. **PMID:** 26511089. **IF- 1.446**
69. S. Kumar, C. Cruz-Hernández, S. Pal, R. K. Saunthwal, M. Patel, **R. K. Tiwari**, E. Juaristi, and A. K. Verma. Tandem Approach to Benzothieno- and Benzofuopyridines from o- Alkynyl Aldehydes via Silver-Catalyzed 6-endo-dig Ring Closure. *Journal of Organic Chemistry*, **2015**, 80(21), 10548-10560. doi: 10.1021/acs.joc.5b01647. **PMID:** 26457366. **IF- 4.785**
68. S. Mokhtari. A. N. Shirazi, **R. K. Tiwari**, K. Parang, and Farzad Kobarfard. Synthesis of 3-Arylidene and 3-Arylimine Oxindole Derivatives and Evaluation of Their Src Kinase Inhibitory and Antiproliferative Activities. *Medicinal Chemistry*, **2015**, 5(6), 242-252. Doi: 10.4172/2161-0444.1000271. **IF- 1.72**
67. K. Chand, **R. K. Tiwari**, S. Kumar, A. N. Shirazi, S. Sharma, E. V. V. D. Eycken, V. S. Parmar, K. Parang, and S. K. Sharma. Synthesis, antiproliferative, and c-Src kinase inhibitory, activities of 4-Oxo-4H-1-benzopyran derivatives. *J. Heterocyclic Chemistry*, **2015**, 52, 562-572. **IF- 0.787**
66. J. Marshall, K. Y. Wong, K. Parang, **R. Tiwari**, M. R. Spaller, C. N. Rupasinghe, E. D. Berberoglu, X. Zhao, C. Sinkler, J. Liu, I. Lee, M. Huttemann, and D. J. Goebel. Inhibition of NMDA-induced retinal neuronal death by polyarginine peptides is linked to the attenuation of stress-induced hyperpolarization of the inner mitochondrial membrane potential. *Journal of Biological Chemistry*, **2015**, 290(36), 22030-22048. **IF- 4.258**
65. M. Sharma\*, M. Tiwari, **R. K. Tiwari\***. Hyperhomocysteinemia: Impact on Neurodegenerative Diseases. *Basic & Clinical Pharmacology Toxicology*. **2015**, 117(5), 287-296. doi: 10.1111/bcpt.12424. **PMID:**26036286. **IF- 3.097**
64. S. K. R. Kotla, D. Choudhary, **R. K. Tiwari**, A. K. Verma. Rhodium(III)-catalyzed double C-H activation: A straightforward approach to fused imidazo[1,2-a]pyridines from internal alkynes. *Tetrahedron Letters*, **2015**, 56(32), 4706-4710. **IF- 2.347**
63. B. Ramos-Molina, A. N. Lick, A. N. Shirazi, D. Oh, **R. Tiwari**, N. S. El-Sayed, K. Parang, I. Lindberg. Cationic Cell-Penetrating Peptides Are Potent Furin Inhibitors. *PloS one*. **2015**; 10(6):e0130417. **IF- 3.234**
62. R. K. Saunthwal, M. Patel, **R. K. Tiwari**, K. Parang and A. K. Verma. On water: catalyst-

- free chemoselective synthesis of highly functionalized tetrahydroquinazolines from 2-aminophenylacrylate. *Green Chemistry*, **2015**, 17, 1434-1441. **IF- 8.506**
61. B. P. Pemmaraju, S. Mallekar, H. K. Agarwal, **R. K. Tiwari**, D. Oh, G. F. Doncel, D. R. Worthen, K. Parang. Design, Synthesis, Antiviral Activity, and Pre-formulation Development of Poly-L-Arginine-Fatty acyl Derivatives of Nucleoside Reverse Transcriptase Inhibitors. *Nucleosides, Nucleotides and Nucleic Acids*. **2015**, 34 (1), 1-15. **IF-0.876**
60. D. Oh, S. A. Darwish, A. N. Shirazi, **R. K. Tiwari**, and K. Parang. Amphiphilic Bicyclic Peptides as Cellular Delivery Agents. *Chemmedchem*, **2014**, 9(11), 2449-2453. **IF-2.98**
59. N. Sayeh, A. N. Shirazi, D. Oh, J. Sun, D. Rowley, A. Banerjee, A. Yadav, **R. K. Tiwari\***, and K. Parang\*. Amphiphilic Triazolyl Peptides: Synthesis and Evaluation as Nanostructures. *Current Organic Chemistry*, **2014**, 18(20), 2665-2671. **IF-1.949**
58. A. N. Shirazi, **R. Tiwari**, D. Oh, B. Sullivan, A. Kumar, Y. Beni, and K. Parang. Cyclic Peptide-Selenium Nanoparticles as Drug Delivery Systems. *Molecular Pharmaceutics*, **2014**, 11(10), 3631-3641. **IF- 4.342**
57. D. Oh, A. N. Shirazi, K. Northup, B. Sullivan, **R. K. Tiwari**, M. Bisoffi, and K. Parang. Enhanced Cellular Uptake of Short Polyarginine Peptides through Fatty Acylation and Cyclization. *Molecular Pharmaceutics*, **2014**, 11 (8), 2845–2854. **IF- 4.342**
56. B. Pemmaraju, H. K. Agarwal, D. Oh, K. W. Buckheit, R. W. Buckheit Jr., **R. Tiwari**, K. Parang. Synthesis and Biological Evaluation of 5'-O-Dicarboxylic Fatty Acyl Monoester Derivatives of Anti-HIV Nucleoside Reverse Transcriptase Inhibitors. *Tetrahedron Letters*, **2014**, 55(12), 1983-1986. **IF-2.347**
55. K. Chand, S. Prasad, **R. K. Tiwari**, A. N. Shirazi, S. Kumar, K. Parang, and S. Sharma. Synthesis and Evaluation of c-Src Kinase Inhibitory Activity of Pyridin-2(1H)-one Derivatives. *Bioorganic Chemistry*, **2014**, 53, 75-82. **IF-2.252**
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