

# Stanford

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## Sanjay Malhotra

Associate Professor (Research) of Radiation Oncology (Radiation and Cancer Biology), of Radiology (Molecular Imaging Program at Stanford) and, by courtesy, of Medicine (Oncology)

Radiation Oncology - Radiation and Cancer Biology

### CONTACT INFORMATION

#### • Administrative Contact

Melissa Wong - Assistant Clinical Research Coordinator

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### Bio

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#### ACADEMIC APPOINTMENTS

- Associate Professor (Research), Radiation Oncology - Radiation and Cancer Biology
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

#### LINKS

- Personal Web Page: <http://med.stanford.edu/sanjaymalhotralab.html>

### Research & Scholarship

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#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interests focus on the design and discovery of synthetic, and natural product inspired small molecules which can be used as probes for developing understanding of biological phenomena, including protein-protein interactions and modulation of signal transduction pathways. My laboratory employs the tools of synthetic medicinal chemistry, molecular modeling and chemical biology for translational research in drug discovery, development, imaging and radiation.

### Teaching

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#### STANFORD ADVISEES

##### Postdoctoral Faculty Sponsor

Arpit Dheeraj, Dhanir Tailor

## Publications

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### PUBLICATIONS

- **Polypyridyl iridium(III) based catalysts for highly chemoselective hydrogenation of aldehydes** *JOURNAL OF CATALYSIS*  
Pandrala, M., Resendez, A., Malhotra, S. V.  
2019; 378: 283–88
- **Radiosensitization of Head and Neck Squamous Cell Carcinoma (HNSCC) by a Podophyllotoxin.** *ACS medicinal chemistry letters*  
Resendez, A., Tailor, D., Graves, E., Malhotra, S. V.  
2019; 10 (9): 1314–21
- **Second-Generation Antiandrogens: From Discovery to Standard of Care in Castration Resistant Prostate Cancer** *FRONTIERS IN ONCOLOGY*  
Rice, M. A., Malhotra, S., Stoyanova, T.  
2019; 9
- **Cancer specific caloric restriction using novel small molecule improves the therapeutic regime for triple negative breast cancer**  
Tailor, D., Resendez, A., Kumar, V., Going, C., Pitteri, S., Malhotra, S.  
AMER ASSOC CANCER RESEARCH.2019
- **Novel CMKLR1 Inhibitors for Application in Demyelinating Disease** *SCIENTIFIC REPORTS*  
Kumar, V., LaJevic, M., Pandrala, M., Jacobo, S. A., Malhotra, S., Zabel, B. A.  
2019; 9
- **Selective modulation of the cannabinoid type 1 (CB1) receptor as an emerging platform for the treatment of neuropathic pain** *MEDCHEMCOMM*  
Banister, S. D., Kumar, K., Kumar, V., Kobilka, B. K., Malhotra, S. V.  
2019; 10 (5): 647–59
- **Boronic Acid Appended Naphthyl-Pyridinium Receptors as Chemosensors for Sugars.** *Scientific reports*  
Resendez, A., Malhotra, S. V.  
2019; 9 (1): 6651
- **Boronic Acid Appended Naphthyl-Pyridinium Receptors as Chemosensors for Sugars** *SCIENTIFIC REPORTS*  
Resendez, A., Malhotra, S. V.  
2019; 9
- **Iridium(III) polypyridyl based new catalysts for highly chemoselective hydrogenation of aldehydes**  
Pandrala, M., Resendez, A., Malhotra, S.  
AMER CHEMICAL SOC.2019
- **Structure of a Signaling Cannabinoid Receptor 1-G Protein Complex** *CELL*  
Kumar, K., Shalev-Benami, M., Robertson, M. J., Hu, H., Banister, S. D., Hollingsworth, S. A., Latorraca, N. R., Kato, H. E., Hilger, D., Maeda, S., Weis, W. I., Farrens, D. L., Dror, et al  
2019; 176 (3): 448+
- **Epithelial-to-Mesenchymal Transition (EMT) and Drug Response in Dynamic Bioengineered Lung Cancer Microenvironment** *ADVANCED BIOSYSTEMS*  
Mani, V., Lyu, Z., Kumar, V., Ercal, B., Chen, H., Malhotra, S., Demirci, U.  
2019; 3 (1)
- **Synthetic, Structural, and Anticancer Activity Evaluation Studies on Novel Pyrazolynucleosides.** *Molecules (Basel, Switzerland)*  
Yadav, Y., Sharma, D., Kaushik, K., Kumar, V., Jha, A., Prasad, A. K., Len, C., Malhotra, S. V., Wengel, J., Parmar, V. S.  
2019; 24 (21)
- **Second-Generation Antiandrogens: From Discovery to Standard of Care in Castration Resistant Prostate Cancer.** *Frontiers in oncology*  
Rice, M. A., Malhotra, S. V., Stoyanova, T.  
2019; 9: 801
- **Novel CMKLR1 Inhibitors for Application in Demyelinating Disease.** *Scientific reports*  
Kumar, V., LaJevic, M., Pandrala, M., Jacobo, S. A., Malhotra, S. V., Zabel, B. A.

2019; 9 (1): 7178

- **Selective modulation of the cannabinoid type 1 (CB1) receptor as an emerging platform for the treatment of neuropathic pain.** *MedChemComm*  
Banister, S. D., Krishna Kumar, K., Kumar, V., Kobilka, B. K., Malhotra, S. V.  
2019; 10 (5): 647–59
- **Structure of a Signaling Cannabinoid Receptor 1-G Protein Complex.** *Cell*  
Krishna Kumar, K., Shalev-Benami, M., Robertson, M. J., Hu, H., Banister, S. D., Hollingsworth, S. A., Latorraca, N. R., Kato, H. E., Hilger, D., Maeda, S., Weis, W. I., Farrens, D. L., Dror, et al  
2018
- **Quantitative Proteomic Profiling Reveals Key Pathways in the Anticancer Action of Methoxychalcone Derivatives in Triple Negative Breast Cancer.** *Journal of proteome research*  
Going, C. C., Tailor, D., Kumar, V., Birk, A. M., Pandrala, M., Rice, M. A., Stoyanova, T., Malhotra, S., Pitteri, S. J.  
2018
- **Novel CMKLR1 inhibitors and structure activity relationship studies for application in demyelinating disease**  
Kumar, V., LaJevic, M., Zabel, B., Malhotra, S.  
AMER CHEMICAL SOC.2018
- **Novel chalcone derivatives as potential therapeutic agents for triple negative breast cancer**  
Kumar, V., Going, C., Tailor, D., Pandrala, M., Birk, A., Pitteri, S., Malhotra, S.  
AMER CHEMICAL SOC.2018
- **Indole-based positive allosteric modulators for targeting CB1 receptor to overcome neuropathic pain**  
Resendez, A., Kumar, K., Kumar, V., Kobilka, B., Malhotra, S.  
AMER CHEMICAL SOC.2018
- **Small molecules facilitating DNA repair in breast cancer cells**  
Pandrala, M., Hastak, K., Kumar, V., Gardiner, M., Ford, J., Malhotra, S.  
AMER CHEMICAL SOC.2018
- **Synthesis and evaluation of structure-activity based derivatives of ERGi-USU, a selective inhibitor for ERG-positive prostate cancer cells.**  
Mohamed, A. A., Xavier, C. P., Sukumar, G., Tan, S., Ravindranath, L., Sreenath, T. L., McLeod, D. G., Rosner, I. L., Petrovics, G., Srivastava, M., Strovel, J., Dalgard, C. L., Malhotra, et al  
AMER ASSOC CANCER RESEARCH.2018: 76–77
- **Targeting the Hsp40/Hsp70 Chaperone Axis as a Novel Strategy to Treat Castration-Resistant Prostate Cancer** *CANCER RESEARCH*  
Moses, M. A., Kim, Y., Rivera-Marquez, G. M., Oshima, N., Watson, M. J., Beebe, K. E., Wells, C., Lee, S., Zuehlke, A. D., Shao, H., Bingman, W. E., Kumar, V., Malhotra, et al  
2018; 78 (14): 4022–35
- **Identification of a Small Molecule That Selectively Inhibits ERG-Positive Cancer Cell Growth** *CANCER RESEARCH*  
Mohamed, A. A., Xavier, C. P., Sukumar, G., Tan, S., Ravindranath, L., Seraj, N., Kumar, V., Sreenath, T., McLeod, D. G., Petrovics, G., Rosner, I. L., Srivastava, M., Strovel, et al  
2018; 78 (13): 3659–71
- **Synthesis and evaluation of derivatives of selective inhibitor ERGi USU, for ERG-positive prostate cancer cells**  
Xavier, C., Mohamed, A. A., Seraj, N., Kumar, V., Sreenath, T., Rosner, I. L., Petrovics, G., Srivastava, M., Dalgard, C. L., Malhotra, S. V., LaRonde, N. A., Dobi, A., Srivastava, et al  
AMER ASSOC CANCER RESEARCH.2018
- **Inhibiting guanylate binding protein 1 (GBP1) impedes ovarian cancer progression**  
Tailor, D., Kumar, V., Pandrala, M., Resendez, A., Malhotra, S. V.  
AMER ASSOC CANCER RESEARCH.2018
- **Synthesis, anti-cancer screening and tyrosyl-DNA phosphodiesterase 1 (Tdp1) inhibition activity of novel piperidinyl sulfamides** *EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES*  
Jun, J., Kumar, V., Dexheimer, T. S., Wedlich, I., Nicklaus, M. C., Pommier, Y., Malhotra, S. V.  
2018; 111: 337–48

- **1,4-Substituted Triazoles as Nonsteroidal Anti-Androgens for Prostate Cancer Treatment** *JOURNAL OF MEDICINAL CHEMISTRY*  
Ferroni, C., Pepe, A., Kim, Y. S., Lee, S., Guerrini, A., Parenti, M. D., Tesi, A., Zamagni, A., Cortesi, M., Zaffaroni, N., De Cesare, M., Beretta, G. L., Trepel, et al  
2017; 60 (7): 3082-3093
- **Molecular Materials Preparation, Characterization and Applications**  
Malhotra, S. V.  
CRC Press.2017
- **Molecular Imaging Biosensor Monitors p53 Sumoylation in Cells and Living Mice** *ANALYTICAL CHEMISTRY*  
Sekar, T. V., Foygel, K., Devulapally, R., Kumar, V., Malhotra, S., Massoud, T. F., Paulmurugan, R.  
2016; 88 (23): 11420-11428
- **Indolo-pyrido-isoquinolin based alkaloid inhibits growth, invasion and migration of breast cancer cells via activation of p53-miR34a axis.** *Molecular oncology*  
Avtanski, D. B., Nagalingam, A., Tomaszewski, J. E., Risbood, P., Difillippantonio, M. J., Saxena, N. K., Malhotra, S. V., Sharma, D.  
2016; 10 (7): 1118-1132
- **C-5-curcuminoid-4-aminoquinoline based molecular hybrids: design, synthesis and mechanistic investigation of anticancer activity** *NEW JOURNAL OF CHEMISTRY*  
Kandi, S. K., Manohar, S., Gerena, C. E., Zayas, B., Malhotra, S. V., Rawat, D. S.  
2015; 39 (1): 224-234
- **ENVIRONMENTALLY FRIENDLY SYNTHESIS USING IONIC LIQUIDS**  
Malhotra, S. V.  
CRC Press.2015
- **Imidazole derivatives show anticancer potential by inducing apoptosis and cellular senescence** *MEDCHEMCOMM*  
Sharma, G. V., Ramesh, A., Singh, A., Srikanth, G., Jayaram, V., Duscharla, D., Jun, J. H., Ummanni, R., Malhotra, S. V.  
2014; 5 (11): 1751-1760
- **Identification of the First Inhibitor of the GBP1:PIM1 Interaction. Implications for the Development of a New Class of Anticancer Agents against Paclitaxel Resistant Cancer Cells** *JOURNAL OF MEDICINAL CHEMISTRY*  
Andreoli, M., Persico, M., Kumar, A., Orteca, N., Kumar, V., Pepe, A., Mahalingam, S., Alegria, A. E., Petrella, L., Sevcunaita, L., Camperchioli, A., Mariani, M., Di Dato, et al  
2014; 57 (19): 7916-7932
- **Imidazolium-derived ionic salts induce inhibition of cancerous cell growth through apoptosis** *MEDCHEMCOMM*  
Malhotra, S. V., Kumar, V., Velez, C., Zayas, B.  
2014; 5 (9): 1404-1409
- **Novel 3,5-bis(aryldiene)-4-piperidone based monocarbonyl analogs of curcumin: anticancer activity evaluation and mode of action study** *MEDCHEMCOMM*  
Thakur, A., Manohar, S., Gerena, C. E., Zayas, B., Kumar, V., Malhotra, S. V., Rawat, D. S.  
2014; 5 (5): 576-586
- **Synthesis and anticancer activity evaluation of resveratrol-chalcone conjugates** *MEDCHEMCOMM*  
Kumar, D., Raj, K. K., Malhotra, S. V., Rawat, D. S.  
2014; 5 (4): 528-535
- **NRF2-mediated Notch pathway activation enhances hematopoietic reconstitution following myelosuppressive radiation** *JOURNAL OF CLINICAL INVESTIGATION*  
Kim, J., Thimmulappa, R. K., Kumar, V., Cui, W., Kumar, S., Kombairaju, P., Zhang, H., Margolick, J., Matsui, W., MacVittie, T., Malhotra, S. V., Biswal, S.  
2014; 124 (2): 730-741
- **Toxicity of ionic liquids to Clostridium sp. and effects on uranium biosorption** *JOURNAL OF HAZARDOUS MATERIALS*  
Zhang, C., Malhotra, S. V., Francis, A. J.  
2014; 264: 246-253
- **Identification of the First Inhibitor of the GBP1:PIM1 Interaction. Implications for the Development of a New Class of Anticancer Agents against Paclitaxel Resistant Cancer Cells** *Journal of Medicinal Chemistry*

- Andreoli, ., Persico, M., Kumar, A., Orteca, N., Kumar, V., Pepe, A., Mahalingam, S., Alegria, . E., Petrella, L., Sevcunaite, L., Camperchioli, A., Mariani, M., et al  
2014; 57 (19): 7916-7932
- **Synthesis of and Biological Study of 7-Benzyl-3-aminobenzimidazo[3,2- a]quinolinium Chloride (ABQ-48: NSC D-763307) and 7-benzyl-3-nitrobenzimidazo[3,2-a]quinolinium Chloride (NBQ 48: NSC D-763303)** *Current Bioactive Compounds*  
Cox, O., Velez, C., Kumar, V., Malhotra, S. V., Rivera, L. A., Hernandez, W. J., Martinez, J. R., Cordero, M., Zayas, B.  
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  - **Anticancer activity of 4-aminoquinoline-triazine based molecular hybrids** *RSC Advances*  
Manohar, S., Pepe, A., Velez Gerena, C. E., , Malhotra, S. V., Rawat, D. S.  
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  - **C-2-symmetric N,N'-bis(terphenyl)ethylenediamines-synthesis and application in the enantioselective nitroaldol reaction** *RSC ADVANCES*  
Malhotra, S. V., Brown, H. C.  
2014; 4 (27): 14264-14269
  - **Synthesis and Structure-Activity Relationship Studies of Novel Dihydropyridones as Androgen Receptor Modulators** *JOURNAL OF MEDICINAL CHEMISTRY*  
Pepe, A., Pamment, M., Kim, Y. S., Lee, S., Lee, M., Beebe, K., Filikov, A., Neckers, L., Trepel, J. B., Malhotra, S. V.  
2013; 56 (21): 8280-8297
  - **Bioreduction and precipitation of uranium in ionic liquid aqueous solution by Clostridium sp.** *BIORESOURCE TECHNOLOGY*  
Zhang, C., Dodge, C. J., Malhotra, S. V., Francis, A. J.  
2013; 136: 752-756
  - **Microwave assisted Westphal condensation and its application to synthesis of sempervirine and related compounds** *TETRAHEDRON LETTERS*  
Rao, T. S., Saha, S., Raolji, G. B., Patro, B., Risbood, P., Difilippantonio, M. J., Tomaszewski, J. E., Malhotra, S. V.  
2013; 54 (6): 487-490
  - **Mechanism of the Antiproliferative Activity of Some Naphthalene Diimide G-Quadruplex Ligands** *MOLECULAR PHARMACOLOGY*  
Hampel, S. M., Pepe, A., Greulich-Bode, K. M., Malhotra, S. V., Reszka, A. P., Veith, S., Boukamp, P., Neidle, S.  
2013; 83 (2): 470-480
  - **Novel nitrobenzazolo[3,2-a]quinolinium salts induce cell death through a mechanism involving DNA damage, cell cycle changes, and mitochondrial permeabilization** *Open Journal of Apoptosis*  
Velez, C., Cox, O., Rosado-Berrios, C. A., Molina, D., Arroyo, L., Carro, S., Filikov, A., Kumar, V., Malhotra, S. V., Cordero, M.  
2013; 2 (2): 13-22
  - **Synthesis and cytotoxicity evaluation of novel pyrido[3,4-d]pyrimidine derivatives as potential anticancer agents** *MEDCHEMCOMM*  
Wei, L., Malhotra, S. V.  
2012; 3 (10): 1250-1257
  - **Highly Efficient One Step Synthesis of Primary Amines from B-Chlorodialkylboranes** *LETTERS IN ORGANIC CHEMISTRY*  
Malhotra, S. V., Brown, H. C.  
2012; 9 (6): 383-385
  - **Arylalkyl Ketones, Benzophenones, Desoxybenzoins and Chalcones Inhibit TNF- $\alpha$  Induced Expression of ICAM-1: Structure-Activity Analysis** *ARCHIV DER PHARMAZIE*  
Kumar, S., Reddy, C. S., Kumar, Y., Kumar, A., Singh, B. K., Kumar, V., Malhotra, S., Pandey, M. K., Jain, R., Thimmulappa, R., Sharma, S. K., Prasad, A. K., Biswal, et al  
2012; 345 (5): 368-377
  - **Methoxychalcone inhibitors of androgen receptor translocation and function** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Kim, Y. S., Kumar, V., Lee, S., Iwai, A., Neckers, L., Malhotra, S. V., Trepel, J. B.  
2012; 22 (5): 2105-2109
  - **Highly efficient one step synthesis of primary amines from B-chlorodialkylboranes** *Letters in Organic Chemistry*  
Malhotra, S. V., Brown, H. C.  
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- **Ionic Liquids: Neoteric Solvents for Nucleoside Chemistry** *CURRENT ORGANIC SYNTHESIS*  
Kumar, V., Parmar, V. S., Malhotra, S. V.  
2011; 8 (6): 777-786
- **Application of silver N-heterocyclic carbene complexes in O-glycosidation reactions** *CARBOHYDRATE RESEARCH*  
Talisman, I. J., Kumar, V., Deschamps, J. R., Frisch, M., Malhotra, S. V.  
2011; 346 (15): 2337-2341
- **N-Hydroxyethyl-4-aza-didehydropodophyllotoxin derivatives as potential antitumor agents** *EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES*  
Kumar, A., Kumar, V., Alegria, A. E., Malhotra, S. V.  
2011; 44 (1-2): 21-26
- **Synthesis and Anticancer Activity of 13-Membered Cyclic Eneidyne** *ARCHIV DER PHARMAZIE*  
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- **Synthetic and Application Perspectives of Azapodophyllotoxins: Alternative Scaffolds of Podophyllotoxin** *CURRENT MEDICINAL CHEMISTRY*  
Kumar, A., Kumar, V., Alegria, A. E., Malhotra, S. V.  
2011; 18 (25): 3853-3870
- **Synthesis and biological activity evaluation of N-protected isatin derivatives as inhibitors of ICAM-1 expression on human endothelial cells** *MEDCHEMCOMM*  
Malhotra, S., Balwani, S., Dhawan, A., Singh, B. K., Kumar, S., Thimmulappa, R., Biswal, S., Olsen, C. E., Van der Eycken, E., Prasad, A. K., Ghosh, B., Parmar, V. S.  
2011; 2 (8): 743-751
- **Synthesis and Reactivity of Unique Heterocyclic Structures en Route to Substituted Diamines** *ORGANIC LETTERS*  
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2011; 13 (13): 3336-3339
- **Novel Chalcone Derivatives as Potent Nrf2 Activators in Mice and Human Lung Epithelial Cells** *JOURNAL OF MEDICINAL CHEMISTRY*  
Kumar, V., Kumar, S., Hassan, M., Wu, H., Thimmulappa, R. K., Kumar, A., Sharma, S. K., Parmar, V. S., Biswal, S., Malhotra, S. V.  
2011; 54 (12): 4147-4159
- **O-Glycosidation reactions promoted by in situ generated silver N-heterocyclic carbenes in ionic liquids** *CARBOHYDRATE RESEARCH*  
Talisman, I. J., Kumar, V., Razzaghy, J., Malhotra, S. V.  
2011; 346 (7): 883-890
- **Synthesis of Fused Bicyclic Systems with Nitrogen Atom at the Bridgehead, Including Indolizidines and Quinolizidines** *JOURNAL OF ORGANIC CHEMISTRY*  
Pepe, A., Pamment, M., Georg, G. I., Malhotra, S. V.  
2011; 76 (9): 3527-3530
- **Toxicity of various anions associated with methoxyethyl methyl imidazolium-based ionic liquids on Clostridium sp.** *CHEMOSPHERE*  
Wang, H., Malhotra, S. V., Francis, A. J.  
2011; 82 (11): 1597-1603
- **Toxicity of imidazolium- and pyridinium-based ionic liquids and the co-metabolic degradation of N-ethylpyridinium tetrafluoroborate** *CHEMOSPHERE*  
Zhang, C., Malhotra, S. V., Francis, A. J.  
2011; 82 (11): 1690-1695
- **Biological evaluation of imidazolium- and ammonium-based salts as HIV-1 integrase inhibitors** *MEDCHEMCOMM*  
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2011; 2 (2): 143-150
- **Synthetic and application perspectives of azapodophyllotoxins. Alternative scaffolds of podophyllotoxin** *Current Medicinal Chemistry*  
Kumar, A., Kumar, V., Alegria, A. E., Malhotra, S. V.  
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- **Dual role of ionic liquids as phase transfer catalyst and solvent for glycosidation reactions** *RSC ADVANCES*

- Kumar, V., Talisman, I. J., Bukhari, O., Razzaghy, J., Malhotra, S. V.  
2011; 1 (9): 1721-1727
- **Ionic liquids: neoteric solvents for nucleoside chemistry** *Current Organic Synthesis*  
Kumar, V., Parmar, V. S., Malhotra, S. V.  
2011; 8 (6): 777-786 Kumar, Vineet; Parmar, Virinder S.; Malhotra, Sanjay V.
  - **A copper chelate of thiosemicarbazone NSC 689534 induces oxidative/ER stress and inhibits tumor growth in vitro and in vivo** *FREE RADICAL BIOLOGY AND MEDICINE*  
Hancock, C. N., Stockwin, L. H., Han, B., Divelbiss, R. D., Jun, J. H., Malhotra, S. V., Hollingshead, M. G., Newton, D. L.  
2011; 50 (1): 110-121
  - **Structural modifications of nucleosides in ionic liquids** *BIOCHIMIE*  
Kumar, V., Parmar, V. S., Malhotra, S. V.  
2010; 92 (9): 1260-1265
  - **A spectroelectrochemical and chemical study on oxidation of 7,8-dihydroxy-4-methylcoumarin (DHMC) and some related compounds in aprotic medium** *BIOCHIMIE*  
Petrucci, R., Saso, L., Kumar, V., Prasad, A. K., Malhotra, S. V., Parmar, V. S., Marrosu, G.  
2010; 92 (9): 1123-1129
  - **Application of Halide Molten Salts as Novel Reaction Media for O-Glycosidic Bond Formation** *EUROPEAN JOURNAL OF ORGANIC CHEMISTRY*  
Kumar, V., Talisman, I. J., Malhotra, S. V.  
2010; 3377-3381
  - **Enantioselective biocatalytic reactions on (+/-)-aryl alkyl ketones with native and modified porcine pancreatic lipase** *BIOCATALYSIS AND BIOTRANSFORMATION*  
Husain, M., Kumar, V., Kumar, R., Shakil, N. A., Sharma, S. K., Prasad, A. K., Olsen, C. E., Gupta, R. K., Malhotra, S. V., Van der Eycken, E., DePass, A. L., Levon, K., Parmar, et al  
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  - **Enzymatic Synthesis of Dipeptides in Ionic Liquids** *LETTERS IN ORGANIC CHEMISTRY*  
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  - **A profile of the in vitro anti-tumor activity of imidazolium-based ionic liquids** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Malhotra, S. V., Kumar, V.  
2010; 20 (2): 581-585
  - **Ionic Liquid Applications: Pharmaceuticals, Therapeutics, and Biotechnology**  
edited by Malhotra, S. V.  
American Chemical Society.2010
  - **Recent Development of Cyclic Amide (Pyridone/Lactam) Moiety Containing Heterocycles as Protein Kinase Inhibitors** *CURRENT MEDICINAL CHEMISTRY*  
Wei, L., Malhotra, S. V.  
2010; 17 (3): 234-253
  - **Arylation of Sensitive 1-(Pyrrolidin-1-yl)-diazen-1-ium-diolate in Ionic Liquids** *SYNTHETIC COMMUNICATIONS*  
Velazquez, C. A., Lynn, G. M., Kumar, V., Keefer, L. K., Malhotra, S. V.  
2010; 40 (9): 1322-1332
  - **Recent development of cyclic amide (pyridone/lactam) moiety containing heterocycles as protein kinase inhibitors** *Current Medicinal Chemistry*  
Wei, L., Malhotra, S. V.  
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  - **Ionic Liquids as Pharmaceutical Salts: A Historical Perspective** *236th National Meeting of the American-Chemical-Society*  
Kumar, V., Malhotra, S. V.  
AMER CHEMICAL SOC.2010: 1-12
  - **Antitumor Activity of Ionic Liquids on Human Tumor Cell Lines** *236th National Meeting of the American-Chemical-Society*

- Kumar, V., Malhotra, S. V.  
AMER CHEMICAL SOC.2010: 91-?
- **Enzymatic synthesis of dipeptides in ionic liquid** *Letters in Organic Chemistry*  
Malhotra, S. V., Zhang, C., Wang, H.  
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  - **Biodegradation of pyridinium-based ionic liquids by an axenic culture of soil Corynebacteria** *GREEN CHEMISTRY*  
Zhang, C., Wang, H., Malhotra, S. V., Dodge, C. J., Francis, A. J.  
2010; 12 (5): 851-858
  - **Highly Efficient Method for C-5 Halogenation of Pyrimidine-Based Nucleosides in Ionic Liquids** *SYNTHESIS-STUTTGART*  
Kumar, V., Yap, J., Muroyama, A., Malhotra, S. V.  
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  - **Study on the potential anti-cancer activity of phosphonium and ammonium-based ionic liquids** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
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  - **alpha-Pinene-Based New Chiral Ionic Liquids and their Application as Phase Transfer Catalysts in Enantioselective Addition of Diethylzinc to Aldehydes** *LETTERS IN ORGANIC CHEMISTRY*  
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