



## Bimetallic nano pharmacophore for anticancer agents

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### Abstract:

The In search of new drug molecule with high cytotoxicity profile with fewer side effects lead us to develop a new hypothesis. The present hypothesis will reduce the problem of drug resistance with the platinum, which is the main problem of metal based drug. It might enhance the efficacy of drug molecule, which may broaden the spectrum of activity of platinum based drug. It will provide a better drug candidate with broad spectrum of activity and fewer side effects. The organometalls has been widely used as a catalyst in the organic chemistry for the synthesis of complex molecules, due to their coordinating capability. Serendipities discovery of platinum metal as a cytotoxic agent from the platinum electrode was a key opener for the era of metal based anticancer agents. The discovery of the Pt related drug cisplatin has been an attraction for inorganic as well organic chemist.

The approach had been changed and the pro-drug concept by changing the oxidation state of metal, poly metallic as well the hindered legend was trued, unfortunately these drug could not crossed the clinical stage

Different approach like the change in the career for improvement of release profile, and the target specific formulation was found impressive and many came up with a new hope in the clinical study. In the near future the improvement of result will based on their improved pharmacokinetic results as well the new approach where the bimetallic, system of the molecule will improve the drug efficacy as well the other parameters.

### Biography:

Priyank Purohit is an alumni of NIPER Mohali (M.S Pharm. & PhD) and currently working as Associate Professor and also a director member of educational start-up "Preserve Creative Pvt. Ltd". In the early starting of research career, he got the best thesis of India 2017 award, moreover many agencies felicitated him as "Young



scientist of India' and "Personality of the Year" (Below 40 year). He has 15 international research papers, with Highest 12.4 Impact factor and h index 6 with more than 200 citations. Moreover, he has two Patents, two books and two book chapters. Recently he published a book of "Pharmaceutical Organic Chemistry-II.

### Publication of speakers:

1. Palladium catalyzed C sp<sup>2</sup>-H activation for direct aryl hydroxylation: the unprecedented role of 1, 4-dioxane as a source of hydroxyl radicals; K Seth, M Nautiyal, P Purohit, N Parikh, AK Chakraborti.
2. 2-(2-Arylphenyl) benzoxazole as a novel anti-inflammatory scaffold: synthesis and biological evaluation; K Seth, SK Garg, R Kumar, P Purohit, VS Meena, R Goyal, UC Banerjee.
3. Cooperative Catalysis by Palladium-Nickel Binary Nanocluster for Suzuki-Miyaura Reaction of Ortho-Heterocycle-Tethered Sterically Hindered Aryl Bromides; K Seth, P Purohit, AK Chakraborti.
4. An "all-water" strategy for regiocontrolled synthesis of 2-aryl quinoxalines; B Tanwar, P Purohit, BN Raju, D Kumar, DN Kommi, AK Chakraborti.
5. C-O Bond Activation by Nickel-Palladium Hetero-Bimetallic Nanoparticles for Suzuki-Miyaura Reaction of Bioactive Heterocycle-Tethered Sterically Hindered Aryl Carbonates; P Purohit, K Seth, A Kumar, AK Chakraborti.

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