

## SL04 New Photoredox Reactions of Value to Medicinal and Process Chemistry

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This lecture will discuss the advent and development of new concepts in chemical synthesis, specifically the application of photoredox catalysis to organic chemistry. This new approach to visible light-driven catalysis will demonstrate the development of many new C–C and C-heteroatom bond forming reactions via an array of new reaction mechanisms. This lecture will also highlight the various applications of these new bond-forming reactions to pharmaceutical synthesis.

We will also introduce an approach to modulating organometallic catalysis using photoredox methods. This presentation will also demonstrate why a detailed understanding of the mechanistic underpinnings of these new photoredox–organometallic based processes can enable the invention and development of many transformations that are now being applied widely in the pharmaceutical and fine chemical areas.