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Wolf Prize for Chemistry 2019

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The Wolf Prize for Chemistry (by Wolf Foundation) for 2019 is awarded to Prof. Stephen L. Buchwald from MIT and to Prof. John F. Hartwig from University of California at Berkeley, for the development of efficient transition-metal catalysts that have revolutionized drug manufacturing, leading to breakthrough in molecule and synthetics design.

**Prof. John F. Hartwig****Prof. Stephen L. Buchwald**

Prof. Heck, Prof. Negishi and Prof. Suzuki were awarded Nobel Prize in Chemistry in 2010 for the development of palladium-catalyzed carbon-carbon bond formation. Their discovery and development of ‘*catalyzed carbon-carbon bond formation*’ is of importance for making new chemical bonds and structures. However, it was important and there was an urgent need to go beyond carbon-carbon bond formation. Prof. Buchwald and Prof. Hartwig independently harnessed cross coupling for the making of carbon-heteroatom bonds. These bonds and especially the carbon-nitrogen bonds are immensely important, as they constitute the basis of medicinal chemistry. Prof. Buchwald and Prof. Hartwig have pioneered the development of transition metal catalyzed formation of carbon-heteroatom bonds; and such procedures having wide applicability.

Their work has tremendously impacted the practice of organic synthesis and medicinal chemistry – paving the way for discovery of more efficient drugs and their production for the benefit of the society, now and in future. This breakthrough is the result of basic research and fundamental mechanistic

investigations into ligand design and understanding of transition metal complexes. These methodologies proved to be truly potent and represent a lasting legacy for the art and science of catalysis. The Wolf Prize Ceremony will take place in Jerusalem in the Knesset on May 30, 2019. Special ICS symposium honoring the Wolf Prize for Chemistry Laureates is planned on May 29, 2019 at Technion.

Congratulations to Prof. Buchwald and Prof. Hartwig for their achievements!
