**Back to basics - solutions for next generation electronics and bioelectronics from 19th century dye chemistry**

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Organic pigments have been ubiquitous throughout history and are widely produced today industrially as colorants in everyday products as various as cosmetics and printing inks. Largely regarded by chemists as "yesterday's research" there are many attractive properties of these materials that should be rediscovered in the context of modern technologies. I will cover what are some critical features of these materials and what they have to offer to semiconductor-based devices, especially in the context of applying semiconductors at the interface of biology. I will discuss methods to transform commercial pigments into nano- and microstructured semiconducting crystals, and will highlight two emerging applications: catalysis and cellular interfacing.