From Aromatic Iodides to Heterocycles of Interest

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Aromatic heterocycles are present in a myriad of molecules used for numerous applications. In the group, synthetic methodologies are developed to selectively introduce iodine onto heteroaromatic compounds. Besides direct iodination [1], deprotometalation reactions followed by iodolysis have been applied to substrates sensitive to nucleophilic attacks [2]. To overcome the low tolerance of some functional groups toward organolithiums, hindered lithium amide-metal trap tandems have been designed. The generated aromatic iodides have been converted by transition metal-catalyzed cross-couplings, for instance combined with cyclizations, to access original heterocycles. Their properties have been evaluated in the frame of collaborations, and a few showed valuable bioactivities [1-3].

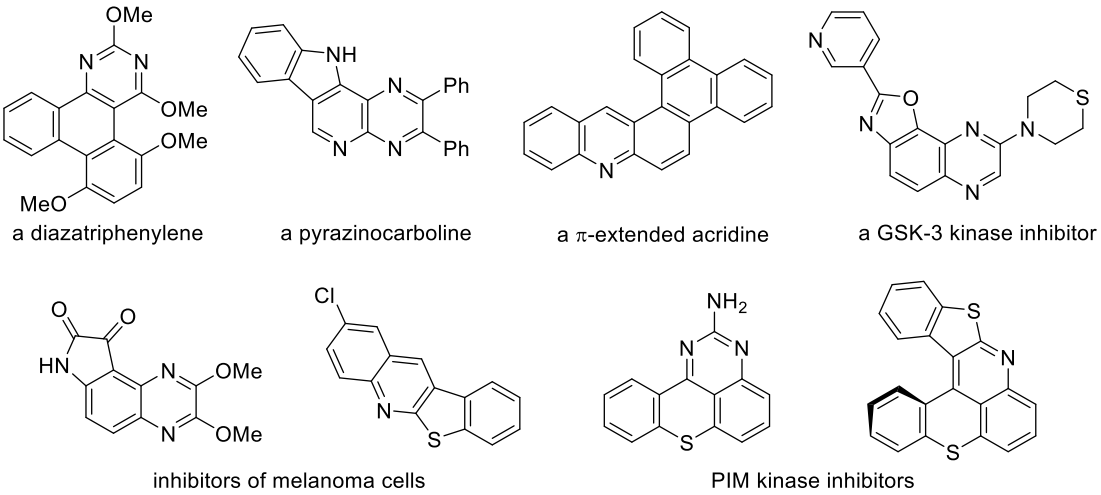

Figure 1. Heterocycles synthesized from aromatic iodides.

References:

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[2] Mokhtari Brikci-Nigassa, N.; Bentabed-Ababsa, G.; Erb, W.; Mongin, F., In situ 'trans-metal trapping': An efficient way to extend the scope of aromatic deprotometalation. *Synthesis* **2018,** *50*, 3615–3633.
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