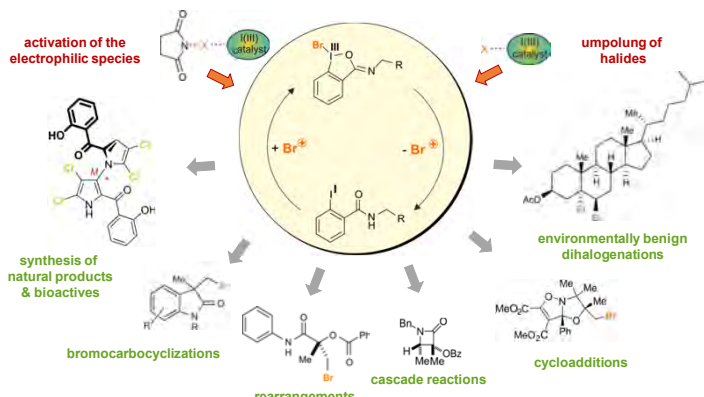




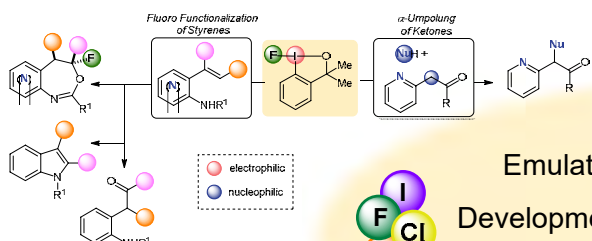
RESEARCH GROUP
TANJA GULDER
PROFESSORSHIP OF
ORGANIC CHEMISTRY AND
BIOMIMETIC CATALYSIS



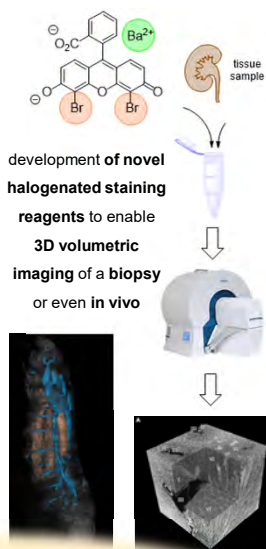
Iodane mediated Halogenations^[1]



our journey leads us from from catalytic bromination reactions to employing stable fluoroiodanes for fluorinations and as a traceless leaving group and towards harnessing the unique features of fluorine via non-covalent interactions



3D-Non-Destructive Micro- and Nano CT Imaging of Soft Tissue^[2]



Biocatalysis^[3]

recombinant expression and application of Vanadium-dependent haloperoxidases in organic synthetic chemistry

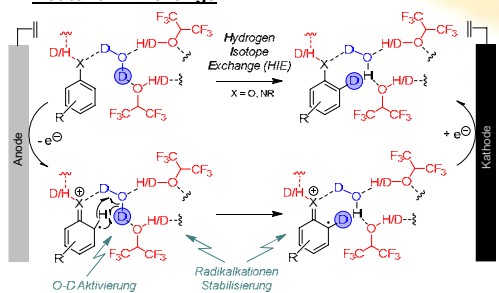
(Photo)biocatalysis



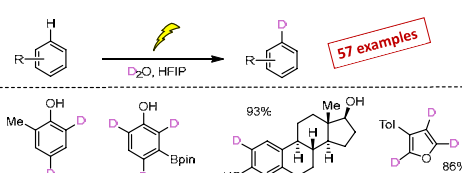
enzyme mimicking peptide-metal complexes

Emulating Nature's Strategies for the Development of Efficient Catalytic Methods to Create Novel Pharmaceuticals and

Electrochemical Hydrogen-Deuterium Exchange

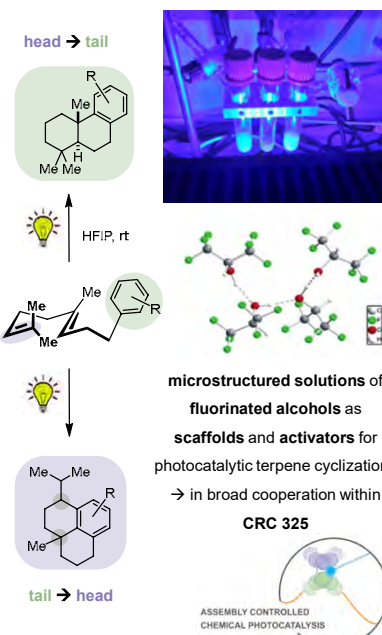


supramolecular assemblies consisting of fluorinated alcohols and H_2O are utilized as tools to develop electrosynthetic approaches for the selective HIE in aromatic compounds → in broad cooperation within RTG 2721 (1,2,3H)

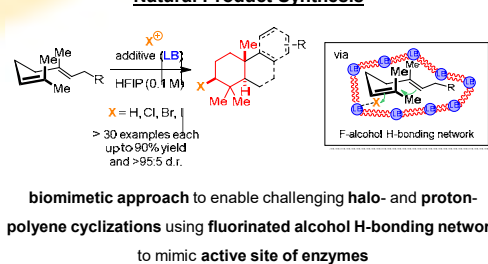


Diagnostics

Photocatalytic Terpene Cyclizations



Biomimetic Polyene Cyclizations and Natural Product Synthesis^[4]



current targets for natural product syntheses:

