In this talk I will give a short introduction into the field of plasmonics, the coupling of light with metallic nanostructures, which allows the breaking of the diffraction limit, as well as the generation of highly energetic charge carriers. Opportunities for non-linear optics, energy conversion, and biological sensing will be discussed. Highlights include the development of super-resolution imaging schemes, control over chemical enhancement in Raman scattering, and enhanced non-linear optical processes at the nanoscale.