Great progress has been made over the last decades in determining the structure of biomolecules at atomic resolution using a variety of techniques. Concurrently, advances in nuclear medical imaging techniques have greatly advanced the study of biological material at the cellular level. Scattering (of either X-rays or neutrons) is particularly useful at studying the space scale in between the two, and therefore bridging the gap between imaging and techniques probing atomic structure.

This talk will outline several examples where neutron scattering has been successfully applied to study the structure on the nanoscale of protein complexes and biologically relevant molecules. Isotopic substitution plays a particularly important role in neutron scattering experiments; how deuteration of molecules can be used to increase information content in the experiments will be presented.

Recent progress in neutron imaging will also be briefly outlined.