Introduction to special section “Topics on Metal Cluster Assembly in Enzymes”

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This special section of minireviews on Metal Cluster Assembly in Enzymes was conceived as a result of the successful ICBIC16 conference held in Grenoble last summer. At this meeting, Markus Ribbe presented a plenary lecture on his efforts to uncover the steps by which the active center of nitrogenase was assembled in nature, while Oliver Einsle received the 2013 SBIC Early Career Award, given for his achievements in defining the structure of the FeMo cluster in nitrogenase. Both graciously agreed to submit minireviews related to their lectures within the same time window (Ribbe and Hu, *A journey into the active center of nitrogenase*, doi:[10.1007/s00775-014-1137-2](https://doi.org/10.1007/s00775-014-1137-2), and Einsle, *Nitrogenase FeMo cofactor: an atomic structure in three simple steps*, doi: [10.1007/s00775-014-1116-7](https://doi.org/10.1007/s00775-014-1116-7)). This timing provided *JBIC* the opportunity to highlight the exciting developments in this area, and three other scientists were invited to present their perspectives on

this topic with respect to related non-heme iron enzymes. Joan Broderick discusses recent developments in the assembly of the H-cluster in [FeFe]-hydrogenases (Broderick et al., *H-Cluster assembly during maturation of the [FeFe]-hydrogenase*, doi:[10.1007/s00775-014-1168-8](https://doi.org/10.1007/s00775-014-1168-8)), Martin Högbom presents his perspective on how the heterodinuclear FeMn active site is formed in the ribonucleotide reductases of some pathogenic bacteria and related proteins (Högbom et al., *Assembly of nonheme Mn/Fe active sites in heterodinuclear metalloproteins*, doi:[10.1007/s00775-014-1140-7](https://doi.org/10.1007/s00775-014-1140-7)), and Nick Le Brun examines the mechanisms of iron mineralization in ferritins (Le Brun et al., *Mechanisms of iron mineralization in ferritins: one size does not fit all*, doi:[10.1007/s00775-014-1136-3](https://doi.org/10.1007/s00775-014-1136-3)). I hope that these articles will bring the reader up to date on what is going on in this area and stimulate new ideas about how such metal cluster active sites can be created.

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