Oral Contributions

[MS6-05] Structure of the Mediator head module

Laurent Larivière*, <u>Clemens Plaschka</u>*, Martin Seizl, Larissa Wenzeck, Fabian Kurth & Patrick Cramer

* These authors contributed equally to this work.

Ludwig-Maximilians-University Munich

The Mediator coactivator complex integrates gene regulatory signals to determine transcription from RNA polymerase II (Pol II) controlled genes. We provide the 3.4 Å resolution crystal structure of one half of the conserved and essential Mediator core, the multiprotein head module from Schizosaccharomyces pombe. The structure resembles the head of a crocodile with two jaws and one limb, consisting of shoulder, arm and finger elements. The shoulder and arm likely contact other parts of Mediator, whereas the jaws and central joint are implicated to interact with Pol II and its carboxy-terminal domain. The structure revises a previous model of the head module from Saccharomyces cerevisiae, reveals a high degree of conservation and flexibility, and contributes to unraveling the molecular basis of gene regulation.

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