

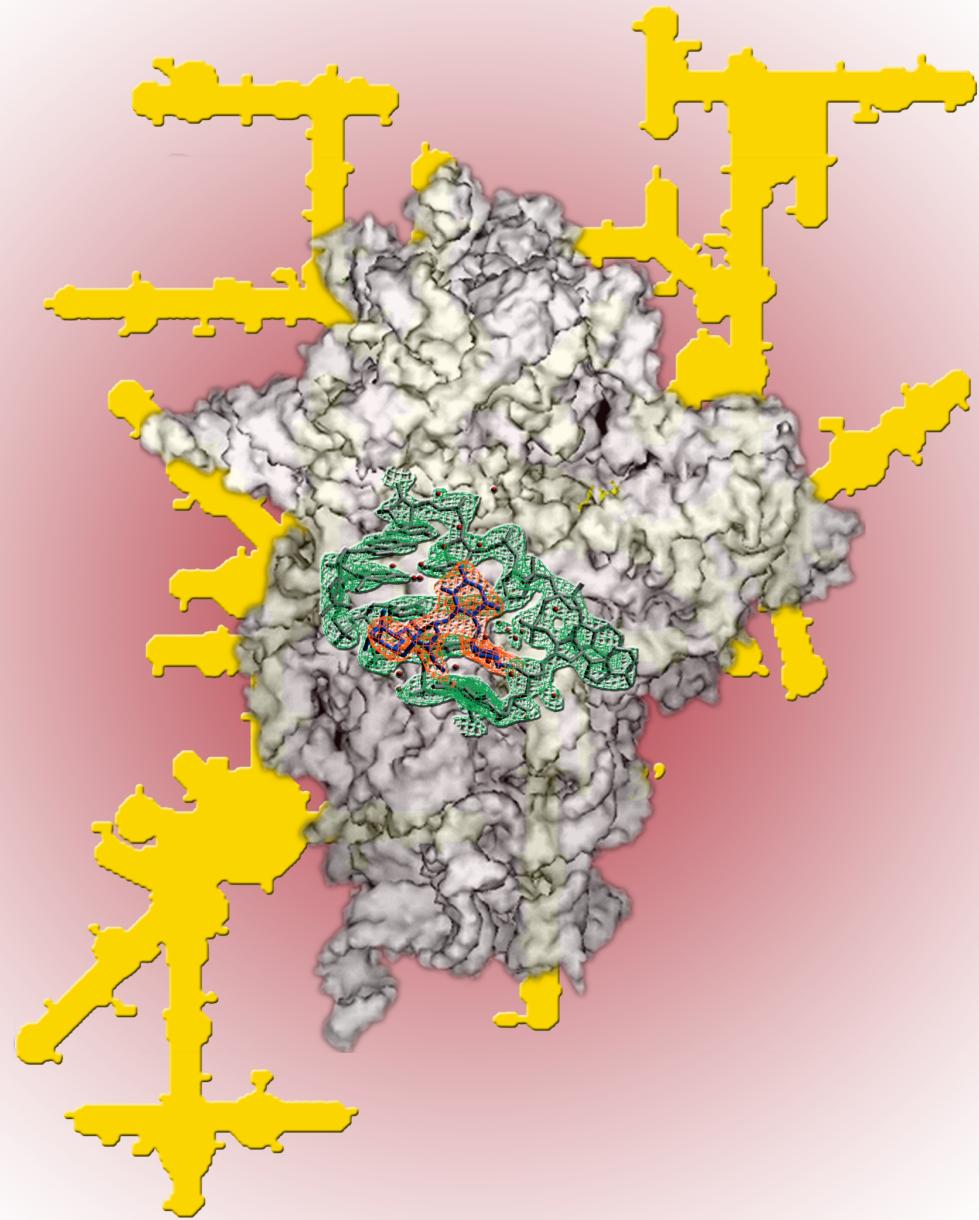
The

RNA

World

E. Westhof

<http://www-ibmc.u-strasbg.fr/upr9002/westhof/>



Some publications from the lab

See also

<http://www-ibmc.u-strasbg.fr/upr9002/westhof/>

Molecular & Brownian dynamics simulations

AUFFINGER P., BIELECKI L. and WESTHOF E. (2004).

Anion binding to nucleic acids.

Structure, **12**, 379-388.

AUFFINGER P., BIELECKI L. and WESTHOF E. (2004).

Symmetric K⁺ and Mg²⁺ ion-binding sites in the 5S rRNA loop E inferred from molecular dynamics simulations.

J. Mol. Biol., **335**, 555-571.

AUFFINGER P., BIELECKI L. and WESTHOF E. (2003).

The Mg²⁺ binding sites of the 5S rRNA loop E motif as investigated by molecular dynamics simulations.

Chem. Biol., **10**, 551-561.

HERMANN T. and WESTHOF E. (1998).

Exploration of metal ion binding sites in RNA folds by Brownian-dynamics simulations.

Structure, **6**, 1303-1314.

Modelling and folding

BERGMAN N.H., LAU N.C., LEHNERT V., **WESTHOF E.** and BARTEL D.P. (2004).
The three-dimensional architecture of the class I ligase ribozyme.
RNA, **10**, 176-184.

RANGAN P., **MASQUIDA B.**, **WESTHOF E.** and WOODSON S.A. (2004).
Architecture and folding mechanism of the *Azoarcus* Group I pre-tRNA.
J. Mol. Biol., **339**, 41-51.

KHVOROVA A., **LESCOUTE A.**, **WESTHOF E.** and JAYASENA S.D. (2003).
Sequence elements outside the hammerhead ribozyme catalytic core enable intracellular activity.
Nat. Struct. Biol., **10**, 708-712.

RANGAN P., **MASQUIDA B.**, **WESTHOF E.** and WOODSON S.A. (2003).
Assembly of core helices and rapid tertiary folding of a small bacterial group I ribozyme.
Proc. Natl. Acad. Sci., USA, **100**, 1574-1579.

TSAI H.Y., **MASQUIDA B.**, BISWAS R., **WESTHOF E.** and GOPALAN V. (2003).
Molecular Modeling of the three-dimensional structure of the bacterial RNase P holoenzyme.
J. Mol. Biol., **325**, 661-675.

WALDSICH C., **MASQUIDA B.**, **WESTHOF E.** and SCHROEDER R. (2002).
Monitoring intermediate folding states of the *td* group I intron *in vivo*.
EMBO J., **21**, 5281-5291.

MASSIRE C., **JAEGER L.** and **WESTHOF E.** (1998).
Derivation of the three-dimensional architecture of bacterial ribonuclease P RNAs from comparative sequence analysis.
J. Mol. Biol., **279**, 773-793.

RNA annotation and reviews

LEONTIS N. and **WESTHOF E.** (2003)

Analysis of RNA motifs.

Curr. Op. Struct. Biol., **13**, 300-308.

LEONTIS N. and **WESTHOF E.** (2001)

Geometric nomenclature and classification of RNA base pairs.

RNA, **7**, 499-512.

LEONTIS N.B., STOMBAUGH J. and **WESTHOF E.** (2002).

The non-Watson-Crick base pairs and their associated isostericity matrices.

Nucleic Acids Res., **30**, 3497-3531.

VICENS Q. and **WESTHOF E.** (2003)

RNA as a drug target: the case of aminoglycosides.

ChemBioChem, **4**, 1018-1023.

WESTHOF E. and **FRITSCH V.** (2000)

RNA folding: beyond Watson-Crick pairs.

Structure, **8**, R55-R65.

HERMANN T. and **WESTHOF E.** (1999).

Non-Watson-Crick base pair in RNA-protein recognition.

Chem. & Biol., **6**, R335-R343.

Bioinformatics tools

YANG W., **JOSSINET F.**, LEONTIS N., CHEN L., WESTBROOK J., BERMAN H. and **WESTHOF E.** (2003).
Tools for the automatic identification and classification of RNA base pairs.
Nucleic Acids Res., **31**, 3450-3460.

OLSON W.K., BANSAL M., BURLEY S.K., DICKERSON, R.E., GERSTEIN M., HARVEY S.C., HEINEMANN U.,
LU X.J., NEIDLE S., SHAKKED Z., SKLENAR H., SUZUKI M., TUNG C.S., **WESTHOF E.**,
WOLBERGER C. and BERMAN H.M. (2001)
A standard reference frame for the description of nucleic acid base-pair geometry.
J.Mol. Biol., **313**, 229-237.

MASSIRE C. and **WESTHOF E.** (1999)
MANIP: An interactive tool for RNA modelling.
J. Mol. Graph. Mod., **16**, 197-205.