**NMR Elucidation of Monomer-dimer transition and Conformational heterogeneity inHistone-like DNA binding protein of *Helicobacter pylori* (Hup)**

**Nancy Jaiswal1, 2\*, Nisha Raikwal1, Himanshu Pandey3,** **Nipanshu Agarwal4, Ashish Arora3, Krishna Mohan Poluri4 and Dinesh Kumar1\***

*1 Centre of Biomedical Research, SGPGIMS Campus, Lucknow 226014, India*

*2 Dr. APJ Abdul Kalam Technical University,**IET Campus, Sitapur Road, Lucknow, Uttar Pradesh 226021*

*3 Molecular and Structural Biology Division, CSIR-Central Drug Research Institute, Lucknow 226 031, India*

*4Department of Biotechnology and Centre for Nanotechnology Indian Institute of Technology Roorkee*

*Roorkee – 247667, Uttarakhand, India*

\*Authors for Correspondence:

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| Nancy Jaiswal  Email: [nancycbmr@gmail.com](mailto:nancycbmr@gmail.com)  Contact: +91-8604825961 | Dr. Dinesh Kumar  Email: [dineshcbmr@gmail.com](mailto:dineshcbmr@gmail.com)  Contact: +91-8005409932 |

**Highlights:**

* The study revealed dynamic equilibrium between monomeric and dimeric conformations of *H. pylori* Hup at near physiological temperature and pH.
* The dynamic equilibrium shifts more towards dimeric state at low pH and low temperature.
* Compared to monomer, the dimeric state confers conformationally stable **-arms and binding to DNA.

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