Credentials: Dr. Ping is internationally recognized for her expertise and achievements in data science, proteasome biology, cardiac physiology, and functional proteomics. She is currently a UC Distinguished Professor in the Departments of Medicine/ Cardiology, Medical Informatics, and Bioinformatics. She has 20+ years of experience in biomedical knowledge synthesis and integration in multi-omics and clinical data, which are the foundation for guiding the fusion of multimodal data and knowledge into clinically relevant discoveries. From 2014 to 2019, she served as the Director of the NIH BD2K Center of Excellence in Biomedical Computing at UCLA, where she worked with an international team of investigators. Together, they developed data science technologies, including software tools and computational platforms to integrate multi-omics data, text-mine electronic health records, promote data annotations, and translate big data into knowledge. She is currently serving as a PI and the Lead of the Training, Recruitment, and Mentoring Program in the NIH Bridge2AI Center at UCLA (2022-2026). As of April 2024, Dr. Ping serves alongside Prof. Wei Wang as the co-Leads and MPIs of the NIH Integration and Coordination Center Sustainability Core for the NIH Common Fund Data Ecosystem (CFDE), supporting 15+ NIH Common Fund Programs engaged with CFDE. She is the Inaugural Chair of the Curriculum Committee for Medical Informatics Graduate IDP at UCLA. Dr. Ping's broad training in systems physiology and computational tools inspired the integrated view and the central theme for her current research goals.

Accomplishments: In the past decade, Dr. Ping has received honors and awards recognizing her accomplishments from numerous international organizations: she received the 2015 Robert M Berne Distinguished Lectureship in Cardiovascular Medicine by American Physiological Society (APS); the 2017 Ken Bowman Research Achievement Award; the NIH/NHLBI Outstanding Investigator Award (OIA) (2017-2023); the 2018 Clinical & Translational Proteomics Award, International Human Proteome Organization (HUPO); the 2021 Donald F. Hunt Distinguished Contribution in Proteomics Award; and the 2022 Dennis B. McNamara Award for Excellence in Cardiovascular Science by IACS and ISHR. Dr. Ping has led many large-scale and international initiatives that have supported the development of omics science globally, bringing basic scientists together with clinicians to integrate their expertise and solve biological questions. This includes directing the NHLBI Proteomics Center and Coordination Center (2010-2015), International Consortium of Proteome Biology in Cardiovascular Medicine (2010-2018), NIH BD2K Center (2014-2019), NHLBI T32 Integrated Data Science Training in Cardiovascular Medicine (2018-Present), and Scalable Analytics Institute (ScAi) at UCLA School of Engineering (2018-Present). She has also mentored 87 trainees, all of whom are making important contributions to society. Among them, 17 individuals hold positions in academic institutions globally, including UCLA, UC Davis, University of Colorado, and University of Heidelberg. Moreover, 47 trainees underwent data science training in her program and have gone to develop their careers in the technology industry, including at Johnson & Johnson, GlaxoSmithKline, Apple, Google, Microsoft, Optum AI, and Amazon.

Representative publications:

- Caufield JH, Zhou Y, …, Han J, Watson KA, & **Ping P**. (2018). A Reference Set of Curated Biomedical Data and Metadata from Clinical Case Reports. Nature Sci. Data, 5:180258. PMID: 30457569.

- Chung NC, Mirza B, …, **Ping P**, & Wang W. (2019). Unsupervised classification of multi-omics data during cardiac remodeling using deep learning. Methods.,166, 66-73. PMCID: PMC6708480.

- Yan Y, …, Wang W, & **Ping P**. (2023). MIND-S is a deep-learning prediction model for elucidating protein PTMs in human diseases. Cell Rep Methods, 3(3):100430. PMCID: PMC10088250.

- Pelletier AR, …, Wang W, Watson KE, & **Ping P**. (2025). Evidence-based Knowledge Synthesis and Hypothesis Validation: Navigating Biomedical Knowledge Bases via Explainable AI and Agentic Systems. J Vis Exp., 220, e67525. DOI: 10.3791/67525.

Complete List of Published Work in My Bibliography (out of 211 total):

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