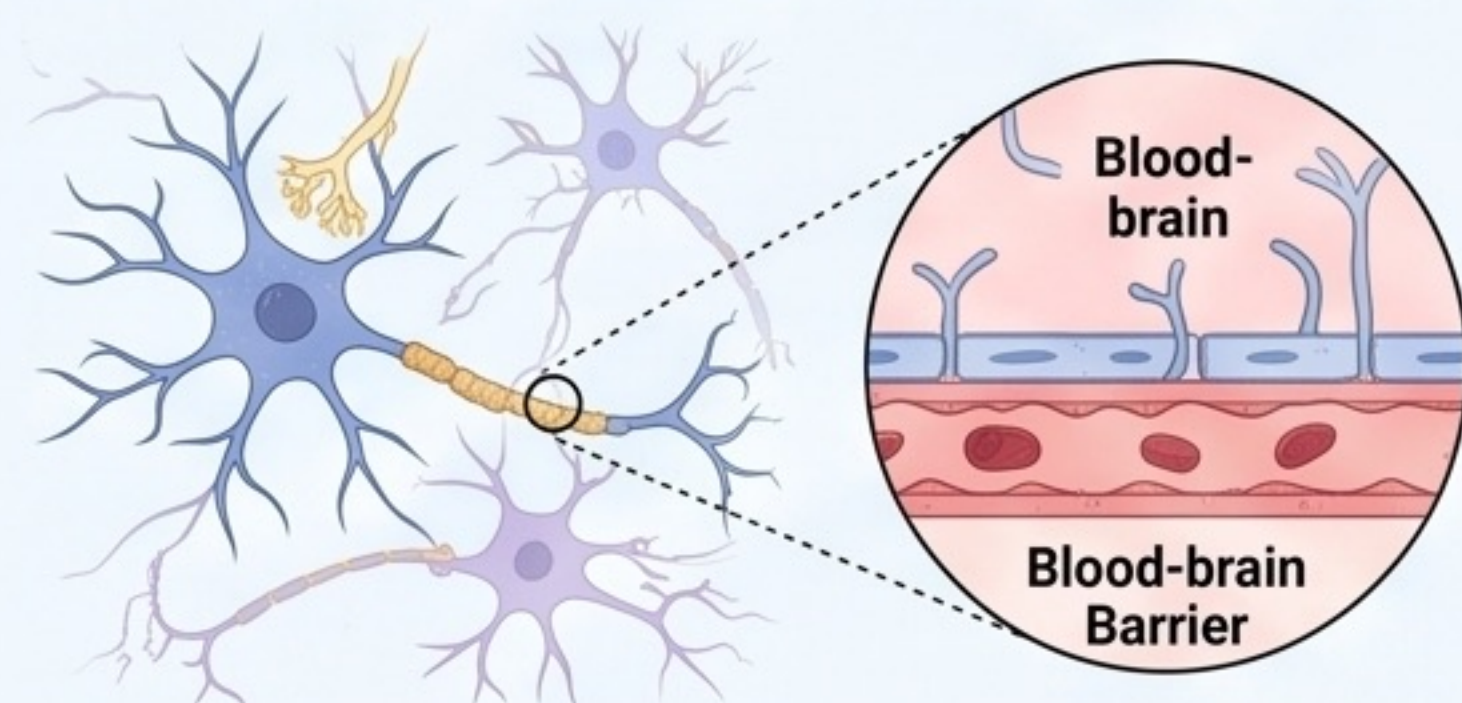


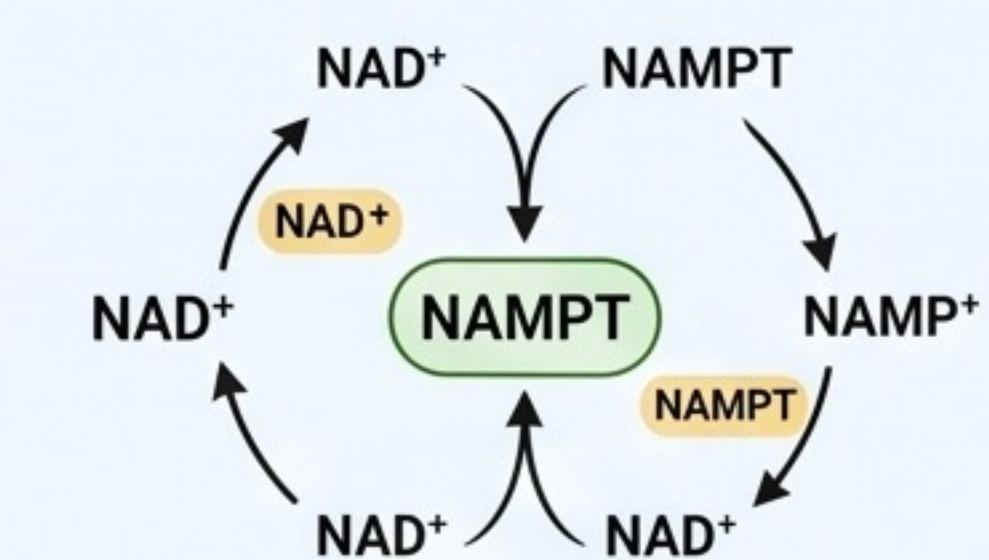
AI-Driven Physicochemical Optimization of Allosteric NAMPT Modulators: From Generative Chemistry to Brain-Penetrant Therapeutics

David Scott Lewis, Enrique Zueco, Haley Yi
AIXC Bio, Zaragoza, Spain • reports@aixcbio.com

1 INTRODUCTION: THE NAD⁺ SALVAGE & NEUROPROTECTION CHALLENGE.

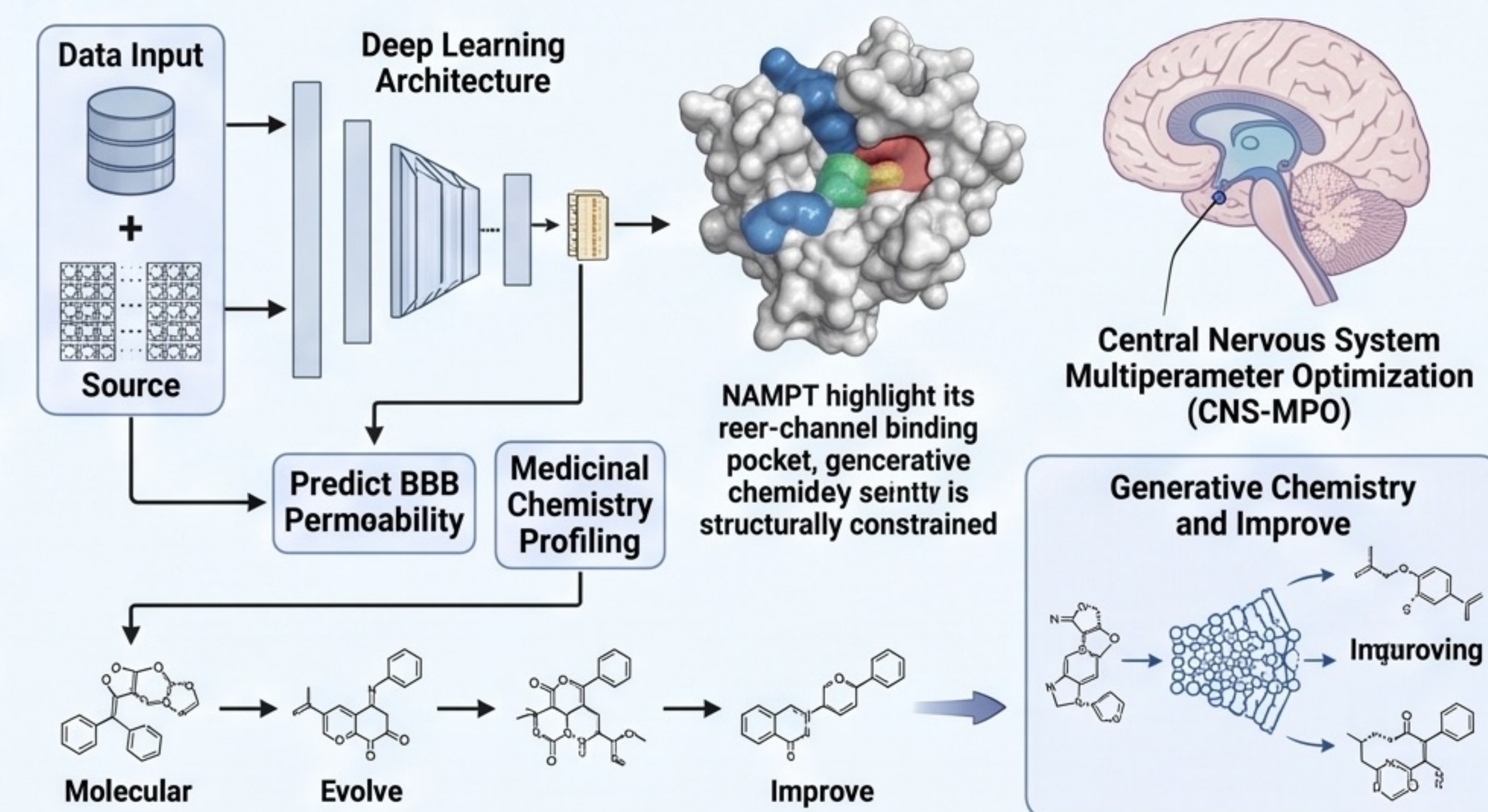


- Enhancing cellular NAD⁺ protects neurons
- Early scaffolds face CNS challenges
- Designing safe, brain-penetrant NAMPT PAMs requires navigating strict constraints

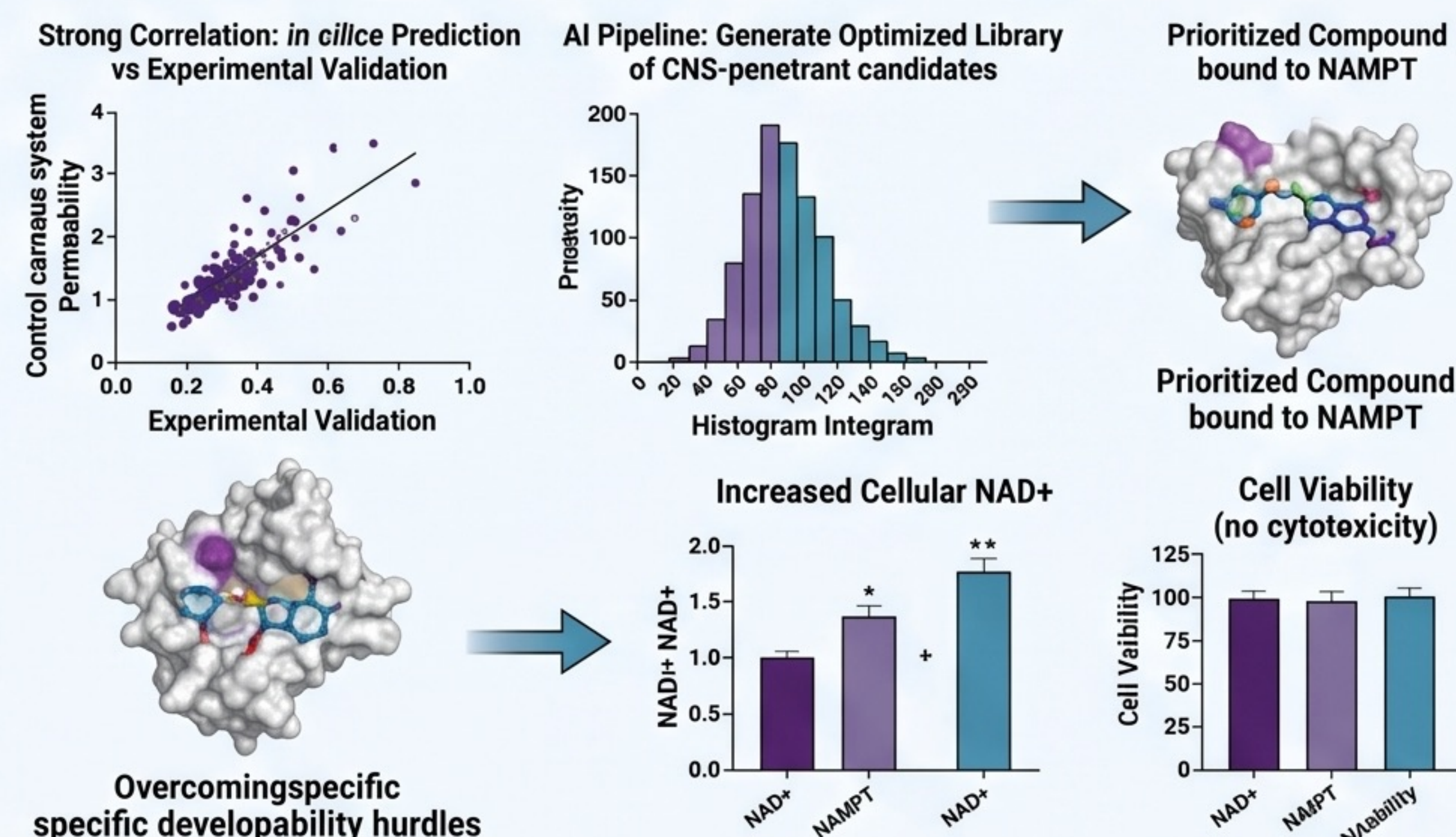


- Enhance cellular *salvage* NAD⁺ in : NAD⁺ salvage pathway
- Designing safe, brain-penetrant NAMPT PAMs requires navigating strict constraints.

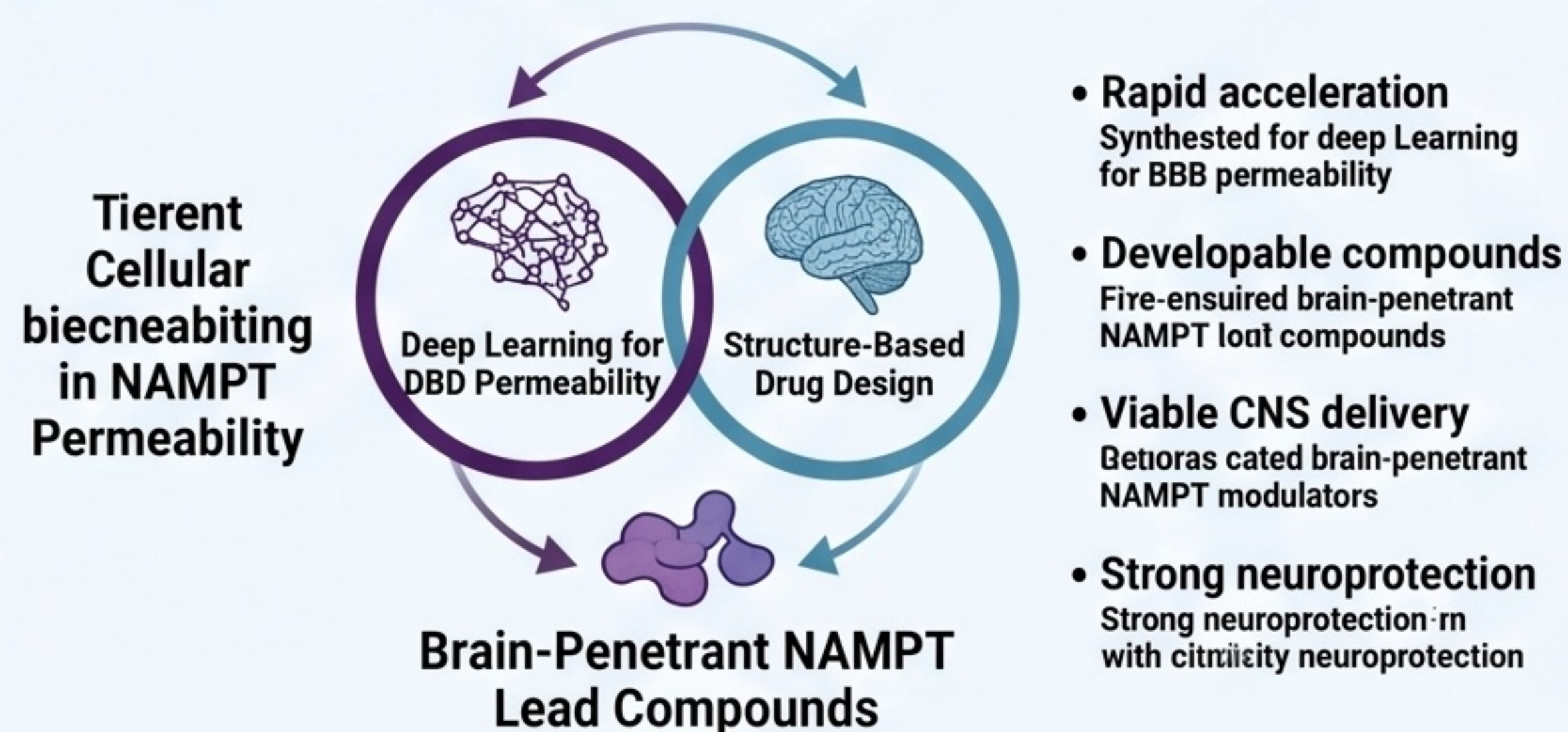
2 METHODS: AI-DRIVEN GENERATIVE OPTIMIZATION PIPELINE.



3 RESULTS: OVERCOMING DEVELOPABILITY HURDLES WITH HIGH-PERFORMANCE CANDIDATES.



4 CONCLUSIONS: ACCELERATED DISCOVERY OF CNS-PENETRANT NAMPT LEAD COMPOUNDS.



KEY TAKEAWAY: A integrated computational medicinal chemistry approach dramatically accelerates the discovery of brain-penetrant NAMPT modulators for neuroprotection, bridging developable lead compounds with viable CNS delivery.