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History and Application of Artificial Intelligence:
Its Turn for Genomics

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Since the 1950's, artificial intelligence (AI) has been developing rapidly. AI has a wide range of topics including theory proving, game playing, expert systems, robotics, knowledge representation, machine learning, semantic web and ontology. These topics fall into one of the three main streams: reasoning-based, learning-based and combination of the two. These streams fit well with developing needs of molecular medicine, including genomic etiology of complex diseases such as substance use disorders. The purpose of this session, entitled "AI application in genetics and epigenetics", aims to realize ongoing efforts to use the power of AI in delineating complicated genomic etiology, a new application of AI in biomedicine.