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## The next generation of genomicists

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The past challenges of genomics inform the future issues that will confront the “next generation” of genomicists and we need to examine some of the mistakes of the past to not repeat those mistakes in the future. Clear issues revolve around failing to plan for future disruptive technologies, trying to fix problems of the “last generation” of genomics, inadequate data collection and annotation that will lead to loss of data or unusable data and a failure of collaboration among labs collecting genomics data or setting up biobanks and repositories. These issues are training issues as much as they are scientific ones, so we need to look at how to set up our curriculums to adequately prepare students not just for the jobs they will want immediately but for those careers they want to have in twenty years. Considering how training takes place now, this might mean disrupting our own modes of teaching and relying more on online learning and MOOCs as opposed to the “apprentice-like” system that is generally in place, particularly for MS and PhD students. Exposing those students to the cutting-edge problems being encountered by institutions trying to solve immediate problems will prepare them for encountering new, novel issues across their careers but might draw attention away from focusing on immediate problems that are generally the focus of many MS and PhD theses. We will present a series of potential problems and discuss some potential modes for solving the training and technical issues that they pose.

### Biography

Gerald J Wyckoff is currently focusing on how evolutionary knowledge can factor into drug discovery. He has been creating and deploying new algorithms for better handling the targets of new chemical entities. His lab deals with aspects of Bioinformatics drug development and study of evolutionary processes at the molecular level.

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