

The challenges to reuse the biomedical big data produced from diverse and unplanned researches

Large amount of omics data from clinical samples have been accumulated and archived, with some being made publically available. Because of this fact, many of us in biomedical community believe that we have gotten into a big data era, and that our efforts should be placed to come up smart algorithms and tools enabling us to do exciting things at various clinical phases of precision medicine. In contrast to some data sets generated from well-coordinated and rigorously SOPed international projects, which have contributed greatly in the applications such as biomarker discovery, better or earlier disease diagnosis and treatment monitoring, many more data sets in public databases, however, were produced from diverse research environments that are neither coordinated nor standardized, which have hindered the efforts to reuse these valuable data assets for sensible biological conclusions and clinical applications. The workshop is intended to discuss the challenges and solutions in addressing the urgent issue to reuse these data sets, so that to make these data them more interoperatable, analyzable and minable.