Today’s medical consensus revolves around Evidence Based Medicine (EBM) that has been built on the results of many randomized controlled trials. Guidelines based on EBM have provided basis for clinical decision-makings. Treatments based on these guidelines by and large improved prognosis of a certain ailment. However, these guidelines can only provide the best fit based on the statistics. Treatments based on the statistics leaves many un- or less-responsive patients behind.

The concept of precision medicine is to analyze genetic information and living environment of each patient in order to determine their association with diseases and classify patients into smaller subgroups. Then, based on that information, the most appropriate prophylactic care and treatment are delivered to the right subgroup at the right time. The most progressive field in Precision medicine is cancer treatment. To conduct precision medicine in cancer treatment, cutting-edge translational research techniques such as Next Generation Sequencing (NGS), so-called “omics” analyses including genomics, transcriptomics, proteomics, metabolomics are prerequisite in addition to companion diagnosis and bioinformatics.

I will introduce the genome medicine of prostate cancer and our experience of precision medicine of prostate cancer.