Search for biomarkers

The TTD biomarker entries can be searched by selecting a disease name and ICD code and search other biomarker related information from the following search field.

Biomarkers have been developed as non-invasive tests for early detection and indication of disease risks, monitoring of disease progression and recurrence and classification of disease subtypes and patient subpopulations for providing the most appropriate treatments. As many therapies have been found to elicit markedly different clinical responses in individual patients, there is a particular need for more biomarkers capable of predicting drug response in individual patients, which has led to intensive efforts in the discovery of such biomarkers. Table 2 gives examples of the approved and clinically tested biomarkers for facilitating the prescription of a particular drug to specific patient subpopulation. Moreover, there are considerable interests in adopting the multi-marker strategy for parallel evaluation of multiple existing and novel biomarkers in the diagnosis and prognostics of diseases and treatment responses in individual patients. These efforts may be facilitated by significantly expanding biomarker coverage in the biomarker databases. We, therefore, searched literature reported biomarkers, mapped them to the ICD-9-CM and ICD-10-CM codes and added the relevant information and ICD code search tools in TTD.

Overall we collected 1755 biomarkers for 365 disease conditions, which include both process biomarkers (genetic mutations or alterations, gene amplification and levels of proteins, gene expression, microRNAs, small molecules, or metabolites that capture a molecular/biochemical aspect of disease pathogenesis and the biological responses to the disease process and/or treatment) and global biomarkers (such as tumor sizes, brain structures in neurodegeneration and shape of cells in anemia). Based on the literature descriptions, our collected biomarkers were classified into one or more of the 12 classes.