OBJECTIVES

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Team ID : PNT2022TMID37589

Project Name : Early Detection of Chronic Kidney Disease Using Machine Learning

OBJECTIVES:

- Importance of chronic kidney disease program objectives;
- Informational objectives of chronic kidney disease program;
- Introduction of the program information to the epidemiological and medical professionals;
- Defining program limitations and further research directions.

As a result of the need to have a structured program for handling chronic kidney disease, the following program objectives can be outlined as the fundamentals for research and practical work in the area of studying chronic kidney disease, its causes, and ways to treat it:

- Carry out the deep study of chronic kidney disease;
- Inquire in detail about the caused of the chronic kidney disease occurrence;
- Study the research works for the reported ways of treating chronic kidney disease;
- Select the most fitting principles and carry out the new research to trace the disease development over time;
- Synthesize research conclusions and formulate them into understandable and comprehensible statements;
- Inform the ordinary people, as the potential victims of chronic kidney disease, on the research findings;
- Implement regular educational work among the chronic kidney disease patients or potential victims of the disease;

OBJECTIVES

- Introduce the research findings to the epidemiology and medicine professionals to allow them to update their treatment techniques and overall knowledge on chronic kidney disease;
- State the limitations of the current chronic kidney disease program;
- Outline the directions for further research on the topic of chronic kidney disease.

Accordingly, the above presented chronic kidney disease program objectives combined with the proper research data collection and analysis techniques will provide epidemiology with valuable data on chronic kidney disease, its development causes, and ways to stop the disease progression.

OBJECTIVES

Objective 1: Integrate existing, and extend clinically well-defined sample cohorts of patients with chronic kidney disease.

Objective 2: Establish and unify a broad 'omics' repository characterizing CKD.

Objective 3: Decipher processes, molecular pathways and associated CKD biomarkers utilizing a Systems Biology approach.

Objective 4: Use cell cultures and animal models to deepen our understanding of identified processes associated with early CKD.

Objective 5: Delineate novel therapeutic strategies and pre-clinical evaluation for prevention and slowing of progression of chronic renal disease.

Objective 6: Clinical validation of identified biomarkers for generating early stage diagnosis and prognosis IVD kits

Objective 7: Delineate a novel risk score for the development of chronic kidney disease

Objective 8: Deepen our understanding of the epidemiological aspects of early CKD with particular focus on consequences for HEALTHCARE POLICIES.