



## GENOME RESEARCH OF THE PROSTATE CANCER

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### **German Cancer Research Center Heidelberg, University Clinic and Martini Clinic Hamburg start genome research of the prostate cancer within the International Cancer Genome Consortium (ICGC).**

On the 22nd of June the German Federal Department for Education and Research approved and resourced the analysis of the entire genomic DNA sequences of at least 500 PCA (and matched non-tumorous DNA) of young men ( $\leq 50$ y). Genomic structural variations will be determined using large-paired-end sequencing of the same samples. Complementary molecular analyses (mRNA, miRNA and epigenomic profiling) in subsets of these tumors will be conducted.

This project fits into the ICGC structure where as of March 2010 an international consortium (Canada, UK, France) was organized focussing on prostate cancers from all ages.

The comparison of data on specific genomic patterns of early onset prostate cancer from Germany with the data from the international consortium will enable a comprehensive description of genetic and epigenetic (as well as hereditary) changes in prostate cancer development and progression.

Goals of the ICGC are -

Coordinate the generation of comprehensive catalogues of genomic abnormalities (somatic mutations) in tumors in 50 different cancer types and/or subtypes which are of clinical and societal importance across the globe. Ensure high quality by defining the catalogue for each tumor type or subtype to include the full range of somatic mutations including single-nucleotide variants, insertions, deletions, copy number changes, translocations and other chromosomal rearrangements.

1. Generate complementary catalogues of transcriptomic and epigenomic datasets from the same tumors.
2. Make the data available to the entire research community as rapidly as possible, and with minimal restrictions, to accelerate research into the causes and control of cancer.

More information about the International Cancer Genome Consortium are available at

[www.icgc.org/icgc/goals-structure-policies-guidelines/introduction](http://www.icgc.org/icgc/goals-structure-policies-guidelines/introduction)