Supplementary information 1: Electronic Literature Search, Tables and Reference List:
Last update September, 2013

Inclusion and exclusion criteria
• Empirical papers that assessed the association between genes and/or biomolecular markers and quality of life domains.
• Quality of life domains included are: physical functioning, fatigue, pain, emotional functioning, cognitive functioning, social functioning and overall quality of life.
• References for the domains on fatigue, pain, emotional functioning and social functioning were based on previously published reviews by the GeneQol Consortium and further supplemented with up-to-date publications within the last 5 years (Nov 2007-2012).
• References for physical functioning is not limited to year of publication as currently there is no GeneQol review on this domain
• Only publications on human subjects are included.
• Only English publications are included.

Search machine

Search terms/details (including number of hits)
• Physical functioning
  o (physical functioning[All Fields] OR physical functionings[All Fields]) AND "Genes"[Mesh] AND "humans"[MeSH Terms] AND English[lang]) – 6 hits
  o (physical functioning[All Fields] OR physical functionings[All Fields]) AND "genetics"[Subheading] AND "Genetics, Behavioral"[Mesh] AND "humans"[MeSH Terms] – 1 hit
  o "Physical Fitness"[Mesh] AND "Genes"[Mesh] AND "humans"[MeSH Terms] – 33 hits
  o "Physical Fitness"[Mesh] AND ("genetics"[Subheading] OR "Genetics, Behavioral"[Mesh]) AND "humans"[MeSH Terms] – 353 hits
• Fatigue
• Pain
• Emotional functioning


"Loneliness"[Mesh] AND ("genetics"[Subheading] OR "Genetics, Behavioral"[Mesh]) – 13 hits

"Loneliness"[Mesh]) AND "Genes"[Mesh] – 4 hits

Cognitive functioning


Social functioning


Information in Table

- Genes and biomolecular markers are included into the Table if there is at least 1 reference (either empirical paper or meta-analysis) showing significant results of its association with the respective quality of life domain.
- Because of the large number of hits on domains like depression and pain, up-to-date articles included into the Table is limited to the last 2 years (2010-2012) at this stage. Inclusion of earlier publications will follow.
- The primary source for identifying the biological pathways was the KEGG (Kyoto Encyclopedia for Genes and Genomes) website (http://www.genome.jp/kegg/), supplemented by Genecards website (http://www.genecards.org/)
- The '?' in the Table represents either information that is unclear (e.g. unable to identify the relevant biological pathway for a particular gene) or not reported (e.g. only the gene but not the biomolecular marker is reported or vice versa).
- Description of included publications are provided in the Reference list under the individual references: categories included are:
  - Type of paper – by default all are research papers. Exceptions are papers such as reviews (include systematic and narrative reviews), meta-analyses or research letter to Editor.
- Sample population – population-based, clinical sample or healthy individuals. Population-based samples were further sub-categorized into either clinical (e.g. selected from population-based cancer registries) or non-clinical.

- Study type – candidate gene study, GWAS or studies that collected biomolecular specimen but not genetic data. Type of specimen collected for genetic assays or biomolecular assessment are stated in brackets (e.g. plasma, saliva, etc).

- Study design – studies that included replication analyses are defined as either replication with an external cohort or split sample (whereby the study sample is separated to include the case and replication samples).