Additional file 2. Biological functions related to the list of 109 genes and their involvement in the phenotype in the current patient.

Outer dyneine arm assembly
Inner dyneine arm assembly
Brain development
Gland development
Gonad development
Head development
Development of the anatomical structure
Development of the trachea
Development of primary sexual characteristics
Forebrain development
Development of the heart
Development of the endocrine system
Development of the central nervous system
Development of the respiratory system
Liver development
Determination of left/right asymmetry in the nervous system
Determination of the male sex
Primary sex determination
Sertoli cell differentiation
Sexual differentiation
Axoneme assembly
Cilium assembly
Assembly of the axonemal dynein complex
Cell motility
Cilium-dependent cell motility and movement of the cilium
Microtubule-based movement
Movement of the epithelial cilium involved in the movement of extracellular fluid
Organization of cellular components
Organization of the cytoskeleton
Organization of the microtubule cytoskeleton
Microtubule-based process
Various development process
Cellular chemotaxis
Negative regulation of neural precursor cell proliferation.
Positive regulation of male gonad development
Reproduction and reproductive process