

## **Genetic Data Systems - Genetic Management and Rule-Based Decision Engine (Mor)**

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### **Background**

As genetic knowledge rapidly expands, the number of genetic problems that can be detected at an early stage increases, and determination of which tests to perform becomes increasingly difficult. Primary care physicians that previously had been able to provide full and accurate information for their patients can no longer handle the growing amount of information, and therefore are not able to properly guide their patients towards choosing the right tests.

### **Our Innovation**

Targeting a growing market with an unmet need, Genetic Data Systems (GDS) is the first to offer a comprehensive solution, aiming at providing the first home genetic guidance system together with a first professional genetic counseling system - improving the access to reliable and up-to-date genetic clinical knowledge. GDS system will not only improve the quality and accuracy of genetic counseling, but will also offer cost savings associated with unnecessary tests for insurers, as well as providing a tool for profitability improvement of genetics institutes attributed to reducing the time of face-to-face counseling for each paid session.

GDS has developed a series of English and Hebrew supported web applications targeting the different needs of genetic counseling patients by making both general and personalized genetic information available to patients and physicians in the most accurate and simple manner:

**Genometer.** A computerized program that calculates a couples' carrier risk for predefined genetic disorders, according to thresholds determined by insurers or health authorities. Based on the frequency and severity of these disorders for each patient individually, the Genometer will recommend which tests should be performed.

**Amniometer.** Based on a wide list of recognized parameters, the Amniometer will provide the much needed assistance for couples and physicians in making the decision of whether to perform an amniocentesis test. The Amniometer indicates the probable risk of a baby having genetic disorders, including Down syndrome.

**Genopedia.** An on-line encyclopedia offering updated information on various genetic topics. The Genopedia is self explanatory, edited using simple terms and every-day language, providing a much needed bridge to the world of genetic knowledge.

### **The Opportunity**

Influenced by new discoveries, improved means of early diagnosis as well as new drugs and therapy methods, the genetics counseling market is rapidly expanding. However, while the amount of information and new tests threat to explode, genetic counseling is still conducted utilizing old

methods and lacks the use of the advancements in the field of information systems. In parallel to improving quality of counseling, GDS will take advantage of this unique window of opportunities bringing the information revolution into genetic counseling.

GDS's solution offers economic benefits to all parts of the value chain, starting from patients through primary care physicians, genetics counselors, Ob/Gyn physicians and all the way to healthcare insurers.

## **Status**


GDS is currently operated by the Genetics institute, Rabin Medical Center, and its products are in commercial use by the two largest HMOs in Israel (covering together ~85% of the population).

The English version of the systems (including adaptations required for US population) is in final stages of development.

## **Patent Status**

PCT filed 2008

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