

Richard Grosse

CEO, InGene, Germany

CV

PROFESSIONAL EXPERIENCE 1999 - present Chief Executive Officer and Founder Institute of Genetic Medicine Ltd.

Development of a Clinical-Phenotypic Database

(Phenomene[™] for phenotype based gene validation

- 1994 present Chief Executive Officer and Founder Institute of Medical Molecular Diagnostic Ltd. (IMMD), Berlin Leading German Genetic Testing Laboratory
- 1993 1995Professor University of Bergen, Medical Faculty, Norway
- 1991 1993 Scholar-in-Residence International Fogarty Center, NIH, Bethesda, USA Honorary Award for contributions to cell biology

1991 - 1992 Head of Laboratory Max-Delbrück-Center, Berlin-Buch

Molecular and cellular biochemistry Regulation of cell growth

1978 - 1992 Head of Laboratories and Departments, Associate director Central Institute of Molecular Biology, Berlin-Buch Cellular and Molecular Biology Cell growth mechanisms

CONTACT INFORMATION

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PHENOME[™]: The Clinical Database for Phenotype Driven Genotyping

InGene is establishing a human phenotype database (PHENOME[™]) based on a 10 year population-wide data collection study approved by an independent ethic's committee and the German Federal Data Protection Agency. This database contains up to 1000 clinical, environmental and life style parameters, as well as DNA and serum from tens of thousand individuals of a diverse European population.

Contrary to other data collection projects phenotype data are linked to PHENOME's biomedical knowledgebase to screen for patient cluster distinguished by specific features. For each phenotype cluster available DNA / serum samples allow phenotype selected proteotyping, genotyping and SNP profiling.

In silico matching links phenotype cluster to annotated genome databases (matching analysis). A match is found when

- presumed functions of defined genes can be associated with known or newly defined clinical-phenotype clusters;
- more than one gene is linked to one phenotype cluster thus revealing a new polygenic background.

Collected data from questionnaires and laboratory analysis cover most medical fields, and include behaviour, life style and genealogical information. Questionnaires are designed to provide universal standards for phenotyping diseases. The PHENOMETMtechnology is inherently flexible, hypothesis independent and expandable.

We report about

- Certified ethical, data protection and data security standards;
- Data collection by using a network of hospitals and clinics, and universal standards for phenotyping diseases;
- Universal data structure for phenotyping (heart disease, gastroenerology, gynecology, asthma, nephrology, rheumatology, pulmonology and others);
- Data processing tools;
- Database design for PHENOME[™];

- Designs for knowledgebase and phenotype-cluster analysis.

PHENOME[™] provides access to phenotype-selected genetic targets for diagnostics and drug design.

GENE TECHNOLOGY FORUM 2001 TARTU, ESTONIA