Why dnalife™?

Genetic testing and nutrigenomics are the future of individualised healthcare. Although reliable genetic testing is readily available for clinical use, genetics is still a relatively new clinical tool. Until recently, healthcare practitioners have been left to educate themselves in this exciting area of clinical science, by simply picking up information where they can. It is for this reason that Nordic Laboratories and DNAlysis Biotechnology, both promotors of individualised medicine, created dnalife. Equipped with the most up-to-date DNA tests, dnalife is dedicated to providing healthcare practitioners with training and education to accurately and usefully interpret genetic results.

Training & support:

- Policy is that all genetic tests are available exclusively through appropriately trained (dnalife accredited) healthcare professionals (HCPs).
- As genetic reports are highly personal and informative, misinterpretation and misrepresentation are valid concerns. Securing the credibility of the practitioner aids both the patient and the practice.
- HCPs are therefore required to undergo nutrigenomics and nutrigenetics training before working with our tests.
- This is also advantageous to the practitioner as it upskills his/her practice.
- *Constant technical support (support w.r.t. interpretation of reports, monthly webinars, SNP guide, literature) is available for HCPs and regular training is also provided. Therefore, dnalife not only serves as a laboratory offering tests but also as a means to gain valuable knowledge in the field and can be used as an education platform*

Test pairing:

In most cases, genetic testing makes the most sense when it is part of a broader medical examination and paired with complimentary functional tests

- dnalife has introduced the concept of test-pairing; offering the HCP a powerful platform on which to build highly individualised treatment strategies

incorporating nutrigenetics testing matched to appropriate functional tests related to specific biochemical pathways.

The tests: All gene variants analysed in dnalife tests are selected according to rigorous scientific standards. The goal of the selection process is to identify genes where a strong gene-environment association has been repeatedly shown.

A genetic variant is only included in a test if:

- The evidence is clear regarding the *gene x environment* effect.
    - The SNPs must be relevant: SNP exerts direct influence over specific biochemical processes that create known symptoms or disease
- The *environment can be modified* resulting in a positive effect (Gene expression modifiable by environmental factors such as diet and lifestyle). This should also be *measurable*: Impact of clinical interventions to modify expression of genes and effect of SNPs should be measurable by laboratory assays- biochemistry
- The SNP must be *prevalent in the population*
    - SNPs should be relatively common in the general population (>5%)
- All genetic variants tested in the dnalife tests are 'functional variants,' meaning that they *directly affect the function of the molecular pathway* in which they participate by altering a protein (such as an enzyme) or hormone (for example, by changing an amino acid in the protein). The physiological effect of this change will be universal, and although the frequency of occurrence of the variant may differ between population groups, the consequence of the variant will not.
- *Evidence*: This effect must be repeated in a minimum of three separate studies and published in reputable, peer-reviewed journals.
    - No dnalife test contains a SNP discovered purely via association in GWAS studies (genome wide association studies).

The reports: The DNA results are presented in a practitioner friendly report.

- The report provides information around the function of each gene, the effect of the variant and the impact that variant will have on the biochemical

pathway (or disease association) in question. The report also provides recommendations on how to modify this risk based on the research.

- dnalife is constantly reviewing the literature to ensure that our reports stay up to date with the latest evidence and that new SNPs are added when they meet our SNP selection criteria.
- New tests and test development is always in the pipeline

The lab: The laboratory is SANAS ISO accredited.

- Laboratories that are accredited to this international standard have demonstrated that they are technically competent and able to produce precise and accurate test data.

Privacy: dnalife is GDPR compliant and has a strict data privacy policy

- The dnalife laboratory identifies samples by the barcode ID - a client sample is labelled with a unique ID barcode.
- DNA samples are stored by dnalife for 3 months and destroyed thereafter, according to ISO accreditation standards. Samples can be destroyed sooner upon request
- dnalife uploads reports only to the authorised practitioner as specified on the order form
- A client's genetic information is not shared with any other company or 3rd party, or used for research purposes

Turn-around-time: from when the sample reaches our dnalife laboratory (sample received at the lab) to the practitioner receiving the report, the turn-around time is a maximum of 2 weeks