myDNAhealth
intelligent health and nutrition

myDNAhealth

WE ARE BRINGING TOGETHER

SCIENCE

TECHNOLOGY

HUMAN BEHAVIOUR

TO PREVENT HEALTH PROBLEMS

Type 2 Diabetes is an epidemic

60M Europe (WHO)

7M UK are at risk (Diabetes.org.uk)

Type 2 Diabetes prevention is a global health priority

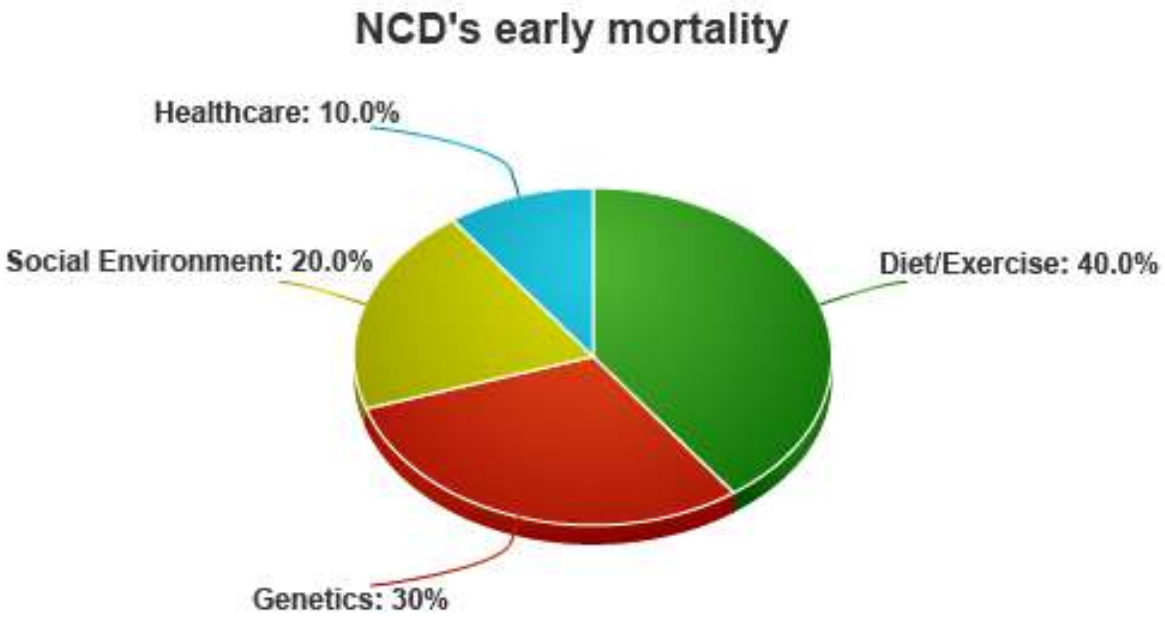
Is Type 2 Diabetes a result of ...

- GENETICS

or

- LIFESTYLE & DIET?

The Global Burden of Non-Communicable Diseases study



40% Lifestyle & diet

30% Genetics

Understanding genetic predisposition to disease and knowledge of lifestyle modifications that reduces the potential for diseases is necessary for the public to **make informed** choices.

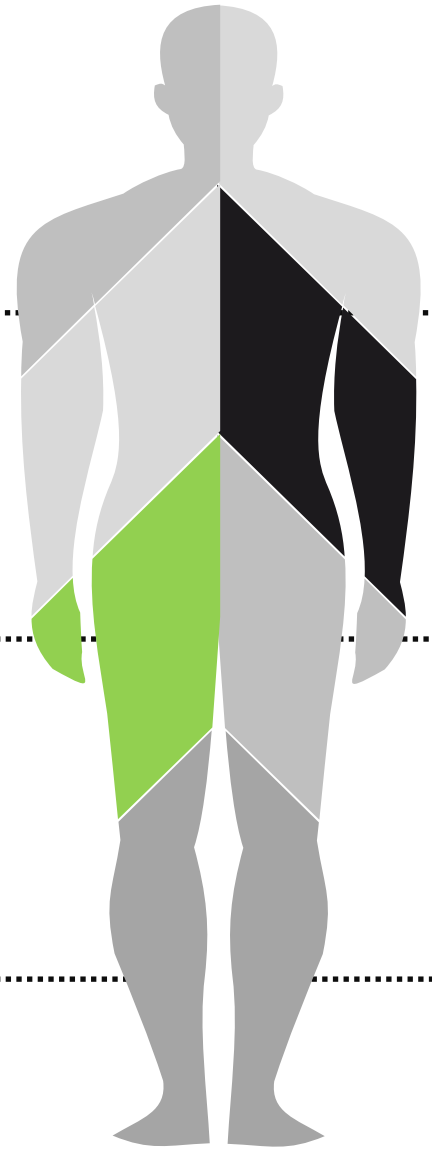
The Global Burden of Disease Study 2010
http://stats.oecd.org

myDNAhealth

UTILISATION OF PERSONAL FEATURES TO PREDICT RISK FOR CERTAIN CHRONIC CONDITIONS AND THE PERSONALISED NUTRITION APPROACH TO PREVENT DISEASE PROGRESSION

Our Solution

1. Genetic variations relating to gene-nutrient and gene-environment interactions.
2. Online consultation questionnaires
   Environment, lifestyle, phenotype, food diary, blood biomarkers
3. Multivariate algorithm reports risk scores

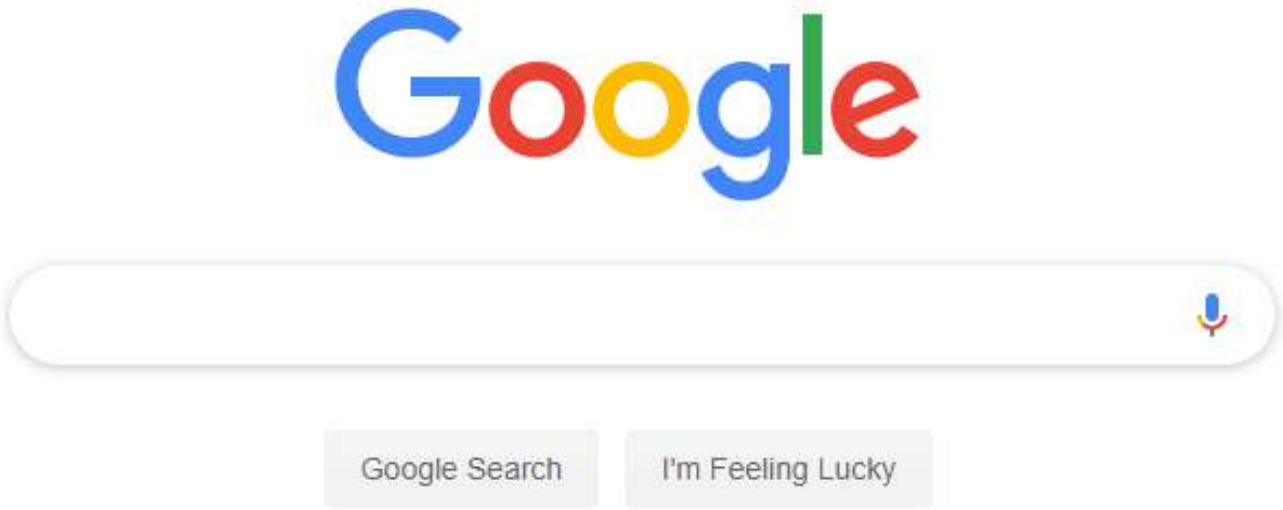


4. Reports displayed in client portal
5. Personalised nutrition plans powered by our proprietary nutrition analysis platform
   Database of 2.5 million recipes
6. VICI our nutrition coaching App is designed to “nudge” behavior changes and to track progress.

Health Risk Analysis Framework And Approach
To Personalised Nutrition

myDNAhealth

WE WANT TO DO TO TYPE 2 DIABETES WHAT GOOGLE DID TO THE YELLOW

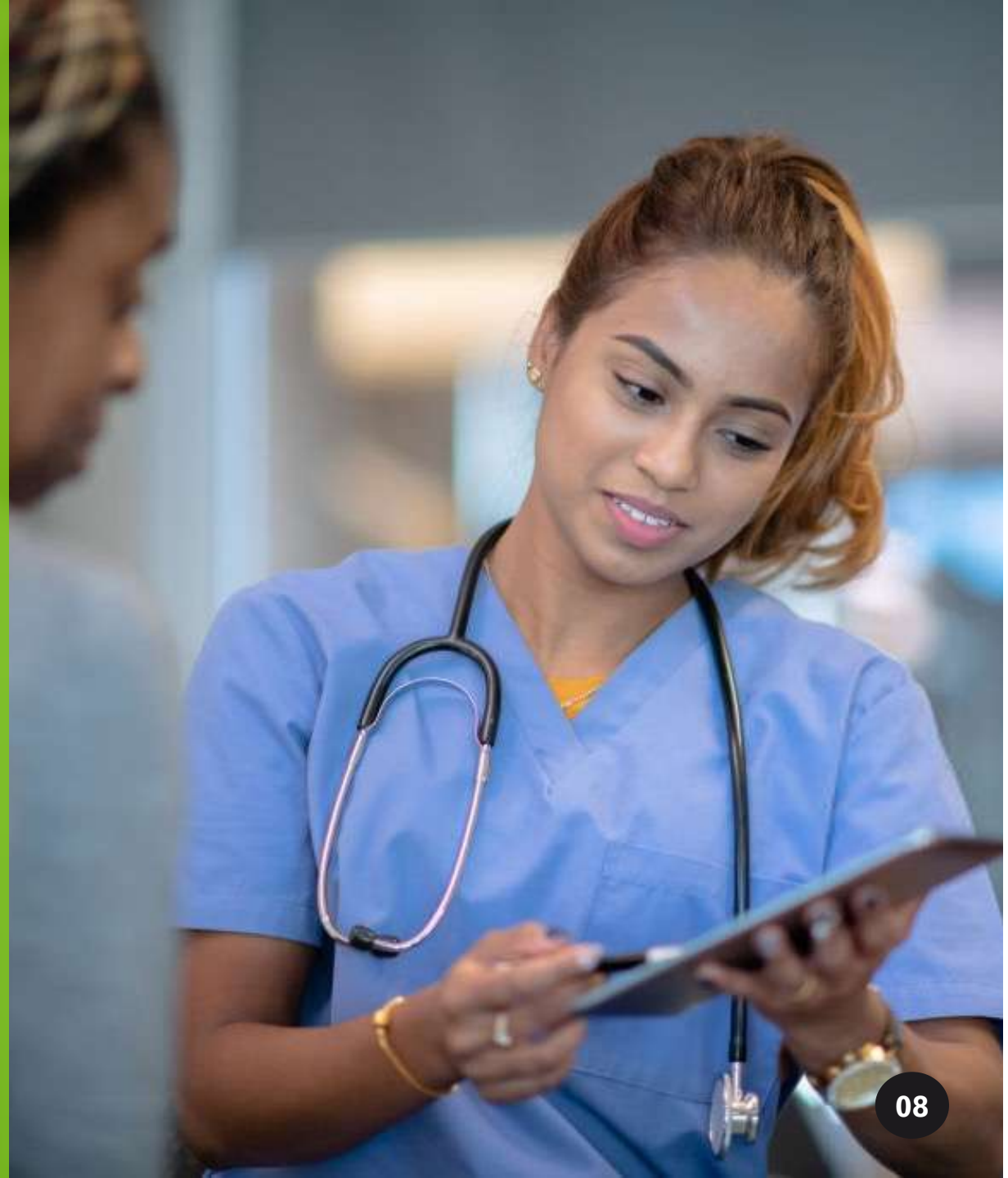


Content

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

2. How we apply these data sources to recommend personalised nutrition interventions and meal plans

3. How we are dealing with the challenges of client compliance and reporting outcomes



1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

Nutritional Genomics

Translated as the concept of "**personalised nutrition**"

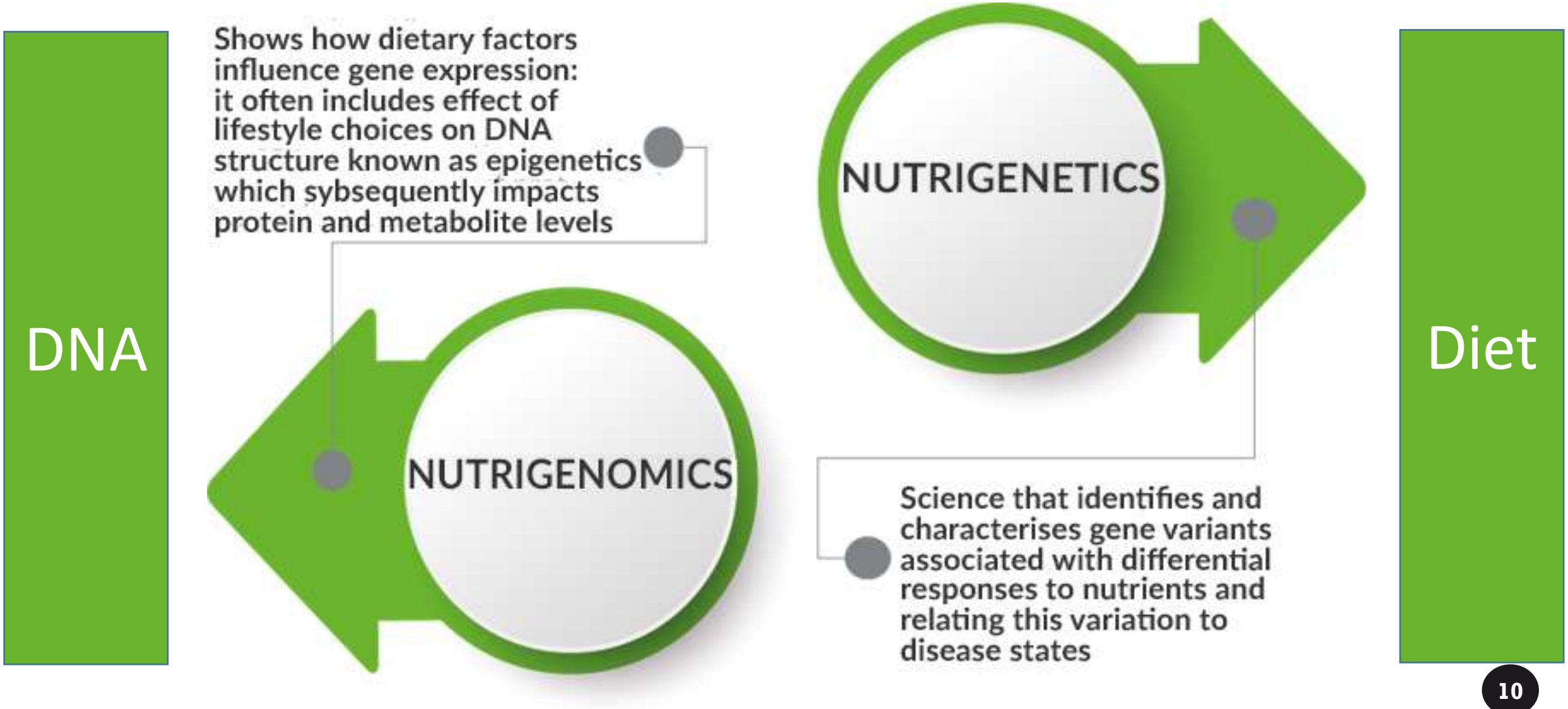
Aims at optimising health

Through personalised lifestyle and nutrition to prevent chronic diseases

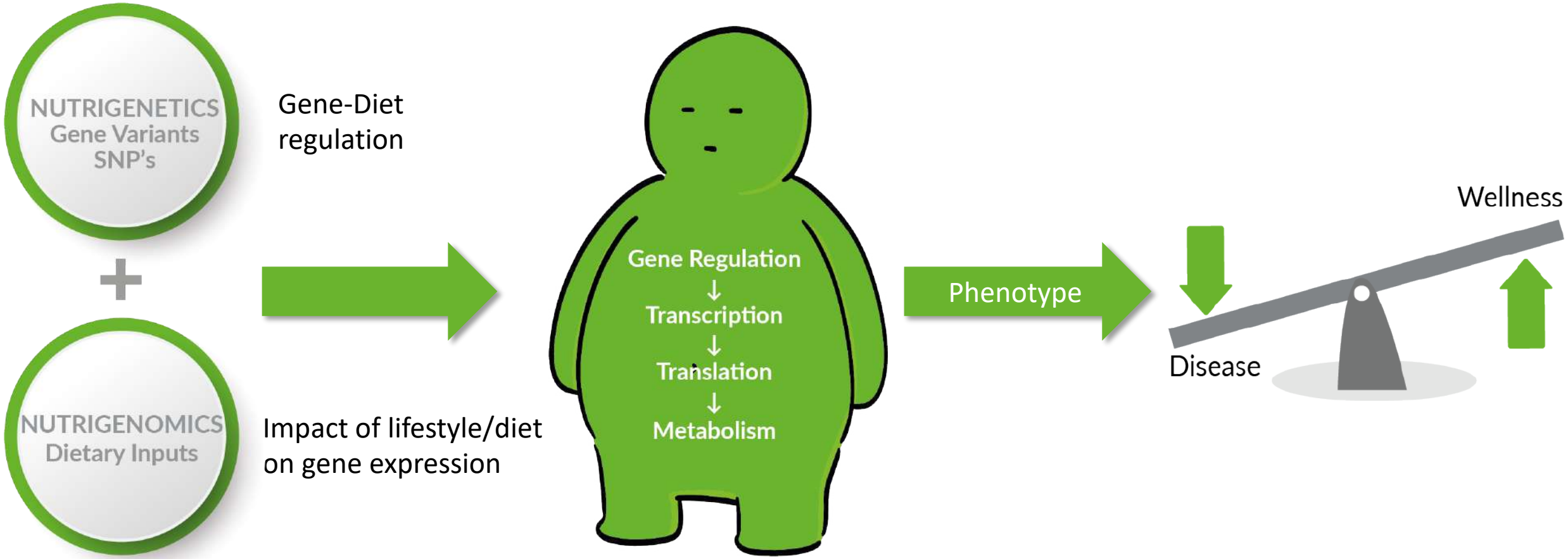
Provide powerful approaches to unravel the complex relationships

Between nutrients, genetic variants and the biological systems

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers



1. The role of nutritional genomics, consultation questionnaires and blood biomarkers



1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

REAL Scientific Process

Phase 1
Relevance

1

Literature review

Relevance to nutrition and nutrigenomics

Investigate the research and the evidence papers

Phase 2
Evidence

2

Deep dive into research papers

Population data

Gene function

Mechanism

Phase 3
Actionable

3

Investigate whether the SNP is actionable.

What nutrients and lifestyle interventions can be done to make an impact to the genetic variant?

Phase 4
Lab Testing

4

Testing laboratory builds a unique testing platform assay for each SNP.

We use a PCR method that is very individual for each SNP and vigorously tested including repeats and double testing to ensure we get 100% accurate results.

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

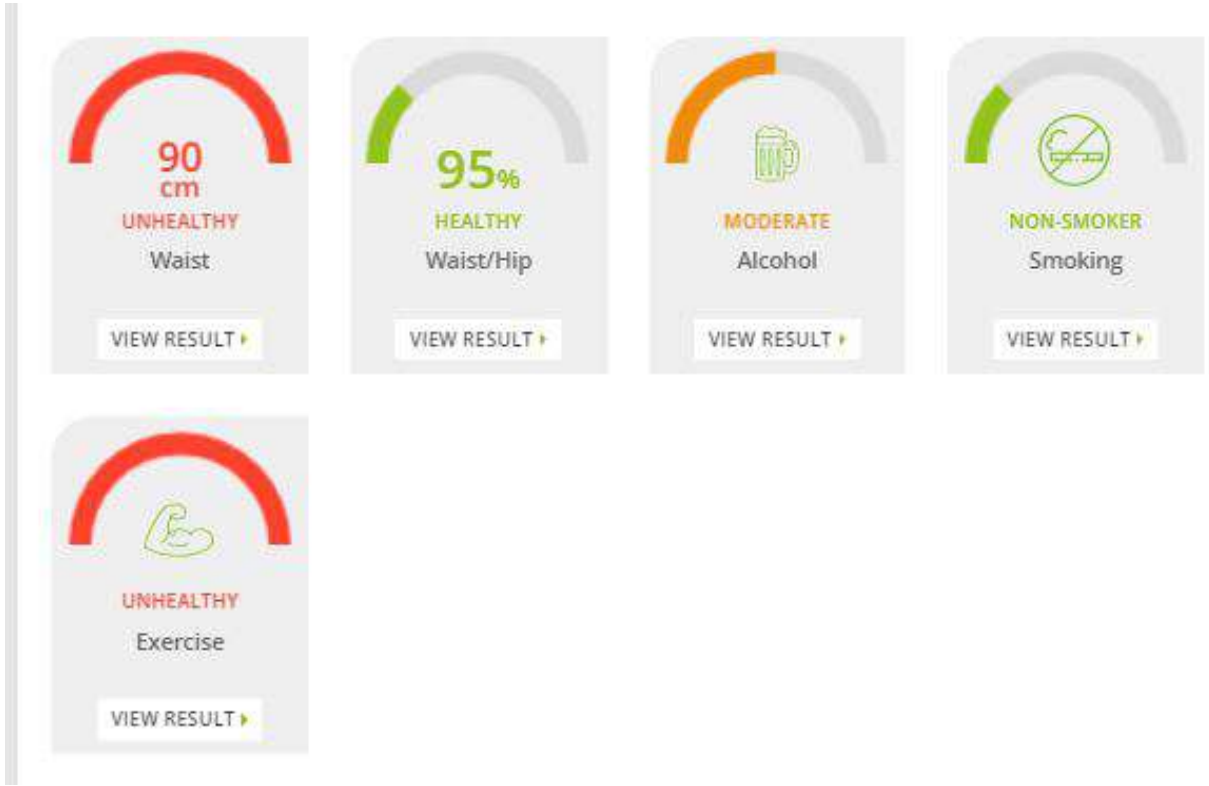
Meet David
Male, 56 years
Family history: Type 2 Diabetes

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

Meet David

Male, 56 years

Family history: Type 2 Diabetes



1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

Meet David
Male, 56 years
Family history: Type 2 Diabetes

Dashboard >

Optimal Health Report Summary

Sleep Moderate

Your overall score indicates that you may be predisposed to experience poor sleep patterns. To determine the r ...

VIEW RESULT

Appetite Regulation Moderate

According to the genetic variants as well as the questionnaire you filled in, you have a moderate risk for foo ...

VIEW RESULT

Saturated Fat Balance Elevated

Your score indicates that this is an area that needs dietary support in order to reduce risks associated with ...

VIEW RESULT

Cholesterol Moderate

Your score indicates you may be at some risk of an unbalanced cholesterol lipoprotein profile and associated h ...

VIEW RESULT

Omega Imbalance Elevated

Your overall score indicates a risk for essential fatty acid imbalance due to increased or decreased enzyme fu ...

VIEW RESULT

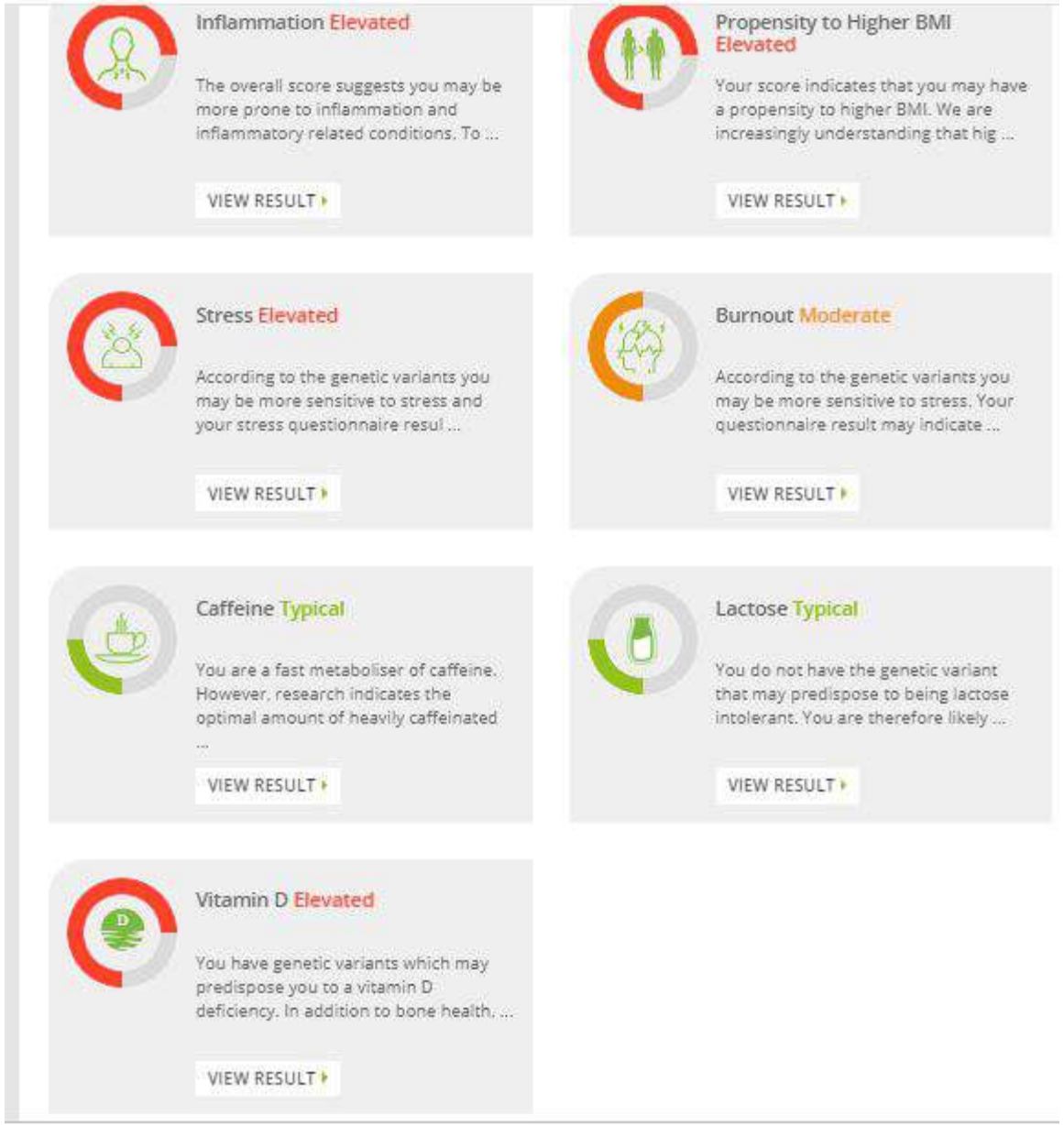
Blood Sugar Imbalance Elevated

Your overall score indicates this is an area that needs dietary and lifestyle support to provide future p ...

VIEW RESULT

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

Meet David
Male, 56 years
Family history: Type 2 Diabetes



1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

Meet David
Male, 56 years
Family history: Type 2 Diabetes

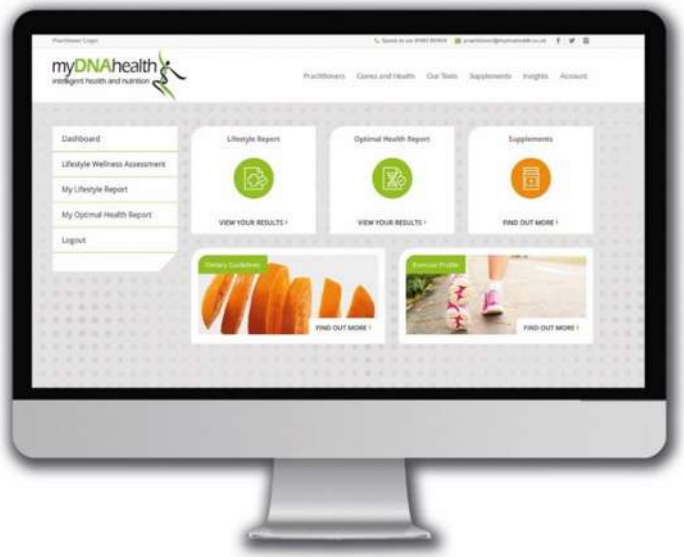
Fasting Blood Glucose Test
Result: 6.1

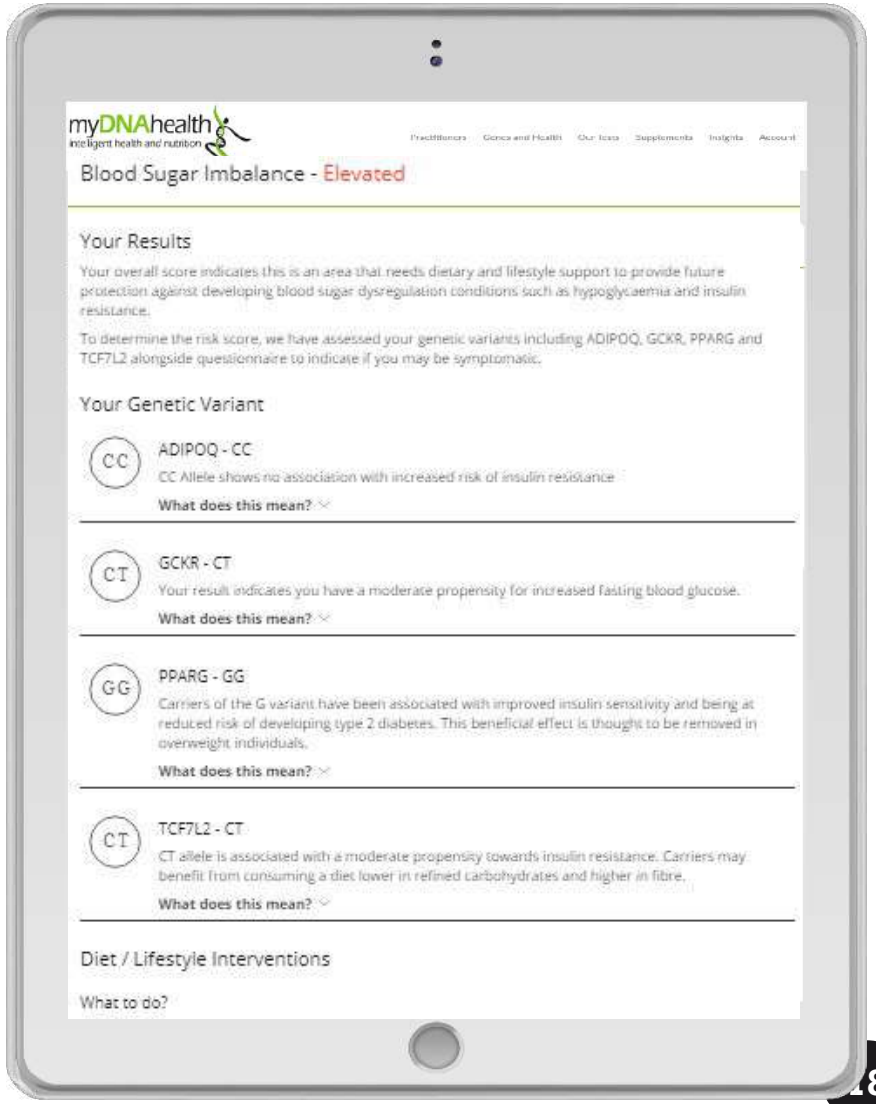
Plasma glucose test	Normal	Prediabetes	Diabetes
Random	Below 11.1 mmol/l Below 200 mg/dl	N/A	11.1 mmol/l or more 200 mg/dl or more
Fasting	Below 5.5 mmol/l Below 100 mg/dl	5.5 to 6.9 mmol/l 100 to 125 mg/dl	7.0 mmol/l or more 126 mg/dl or more
2 hour post-prandial	Below 7.8 mmol/l Below 140 mg/dl	7.8 to 11.0 mmol/l 140 to 199 mg/dl	11.1 mmol/l or more 200 mg/dl or more

Diabetes.co.uk

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

Meet David
Male, 56 years
Family history: Type 2 Diabetes





1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

Meet David
Male, 56 years
Family history: Type 2 Diabetes

Benefits For The Customer

Information

"I realise the food and lifestyle choices I'm making is putting me at risk of developing T2D like my mother.

I don't want to end up on medication and pricking my finger daily to get a glucose reading."

The right food provides vital nutrients and information for our body.

Food is medicine.

Lifestyle Prescribing.

Reduced absenteeism and presenteeism in the workforce.

Achieve Optimal Health

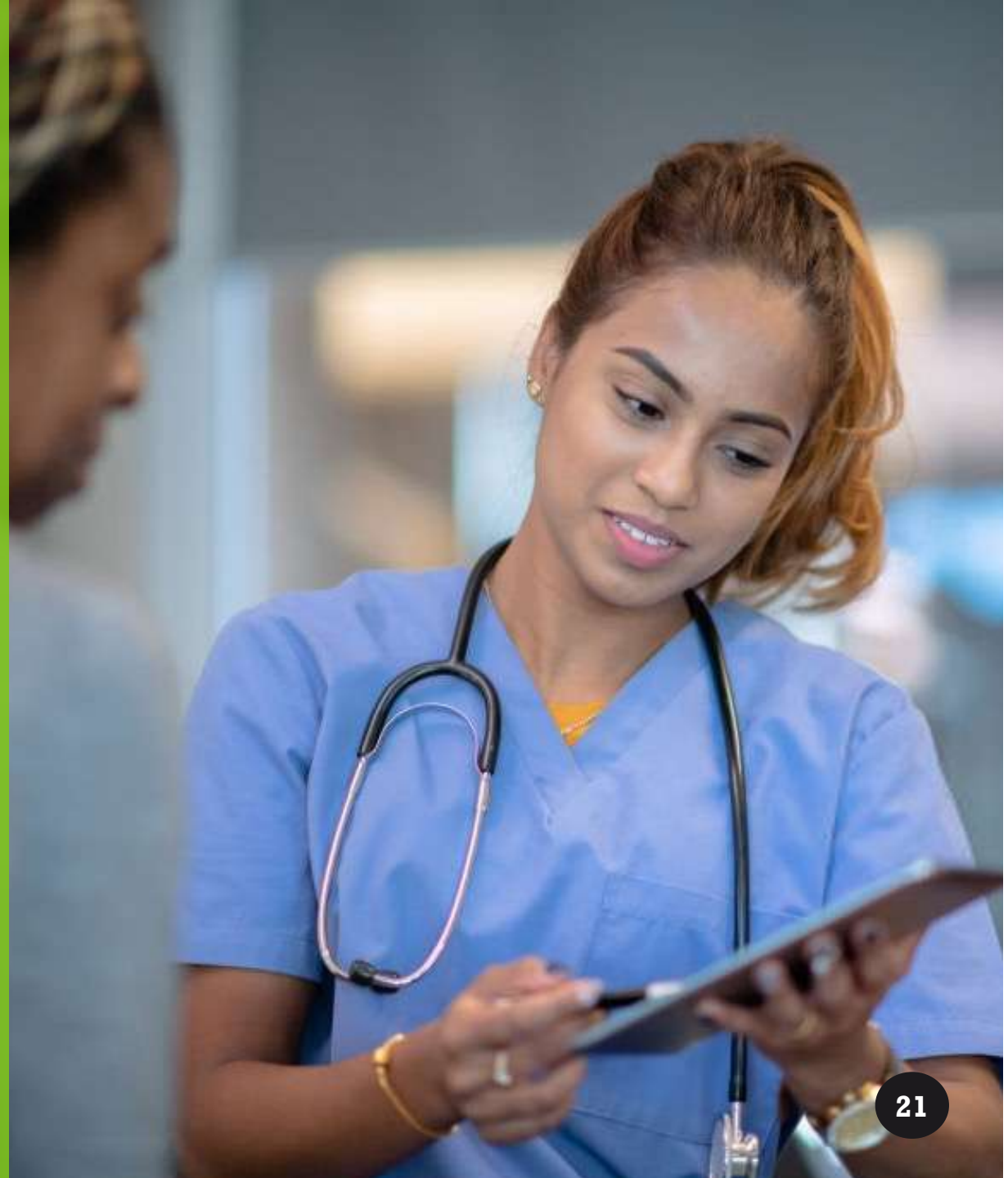
"Please tell me what I can do to reduce this risk and to achieve optimal health to help me age better."

Content

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

2. How we apply these data sources to recommend personalised nutrition interventions and meal plans

3. How we are dealing with the challenges of client compliance and reporting outcomes

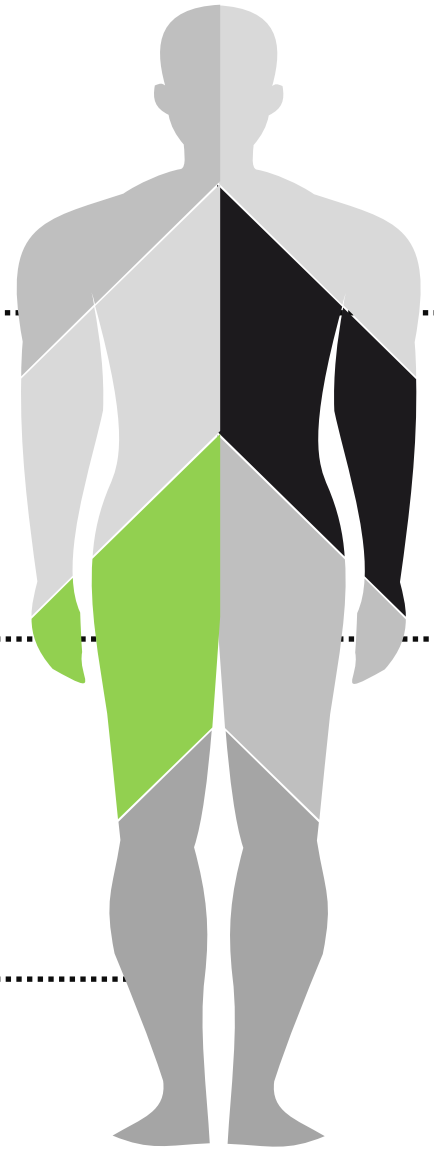


Our Solution

1. Genetic variations relating to gene-nutrient and gene-environment interactions.

2. Online consultation questionnaires
Environment, lifestyle, phenotype, food diary, blood biomarkers

3. Multivariate algorithm reports risk scores

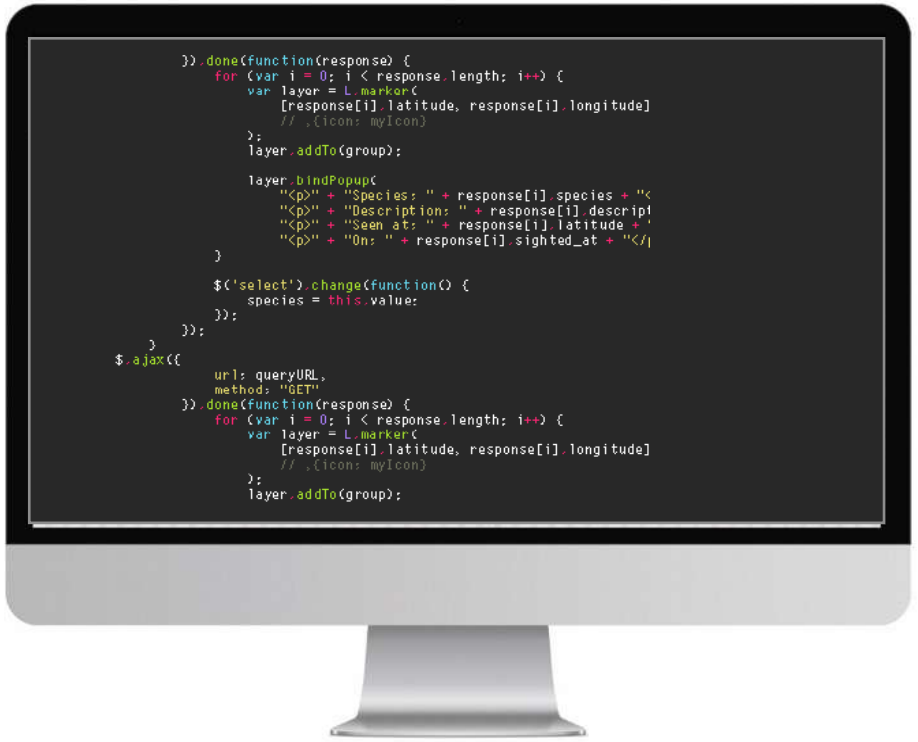


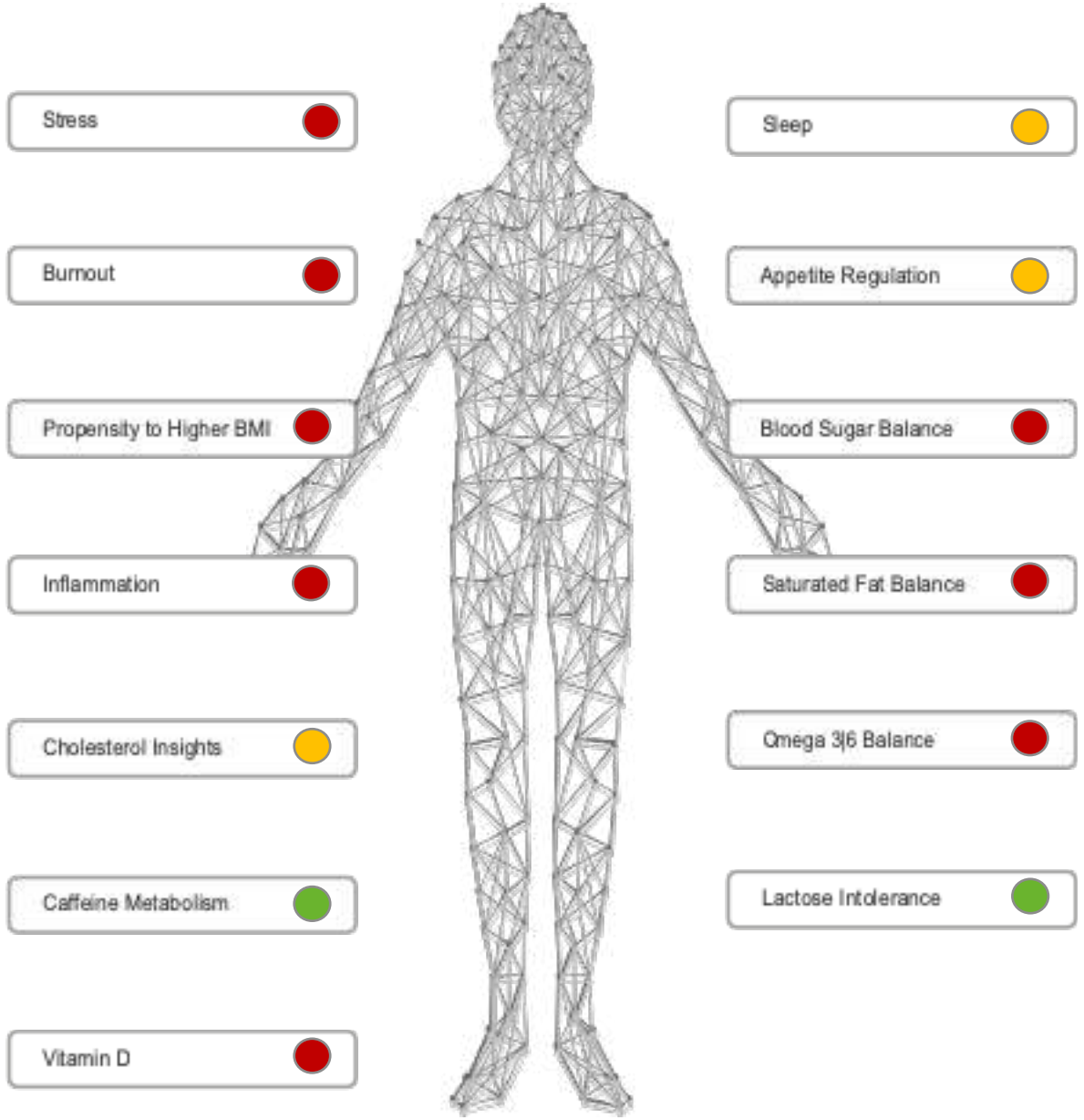
4. Reports displayed in client portal

5. Personalised nutrition plans powered by our proprietary nutrition analysis platform
Database of 2.5 million recipes

Health Risk Analysis Framework And Approach
To Personalised Nutrition

Personalised nutrition and meal plans





Personalised nutrition and meal plans

mealplans by myDNAhealth

2.5 million recipes database

25 macro/micro nutrient values

Sorts and filters recipes

- Recipes matched to personal needs and lifestyle
- Unique search filters - course, diet, allergy, nutrition and more.
- Recipes organised by cookability and nutrition quality.

Diet type and allergy

- Tell Mealplans your diet needs and allergies
- Only see recipes that work for you.

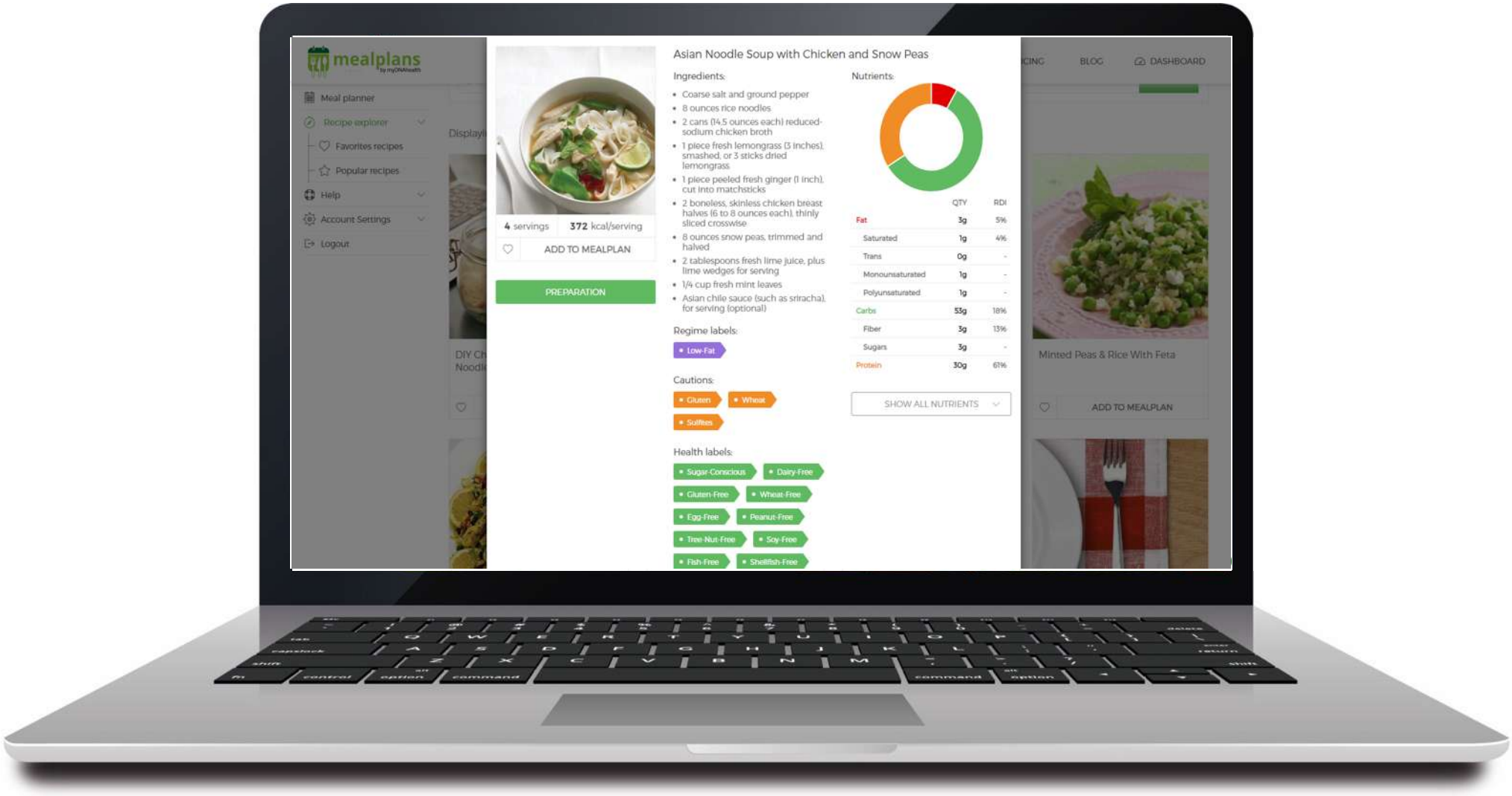
Collect your favourite recipes

- Collect, save and organise your favourite recipes in your personal recipe collection.
- Share your recipes.

Kitchen buddy

- Step-by-step directions to make cooking a breeze.

Personalised nutrition and meal plans

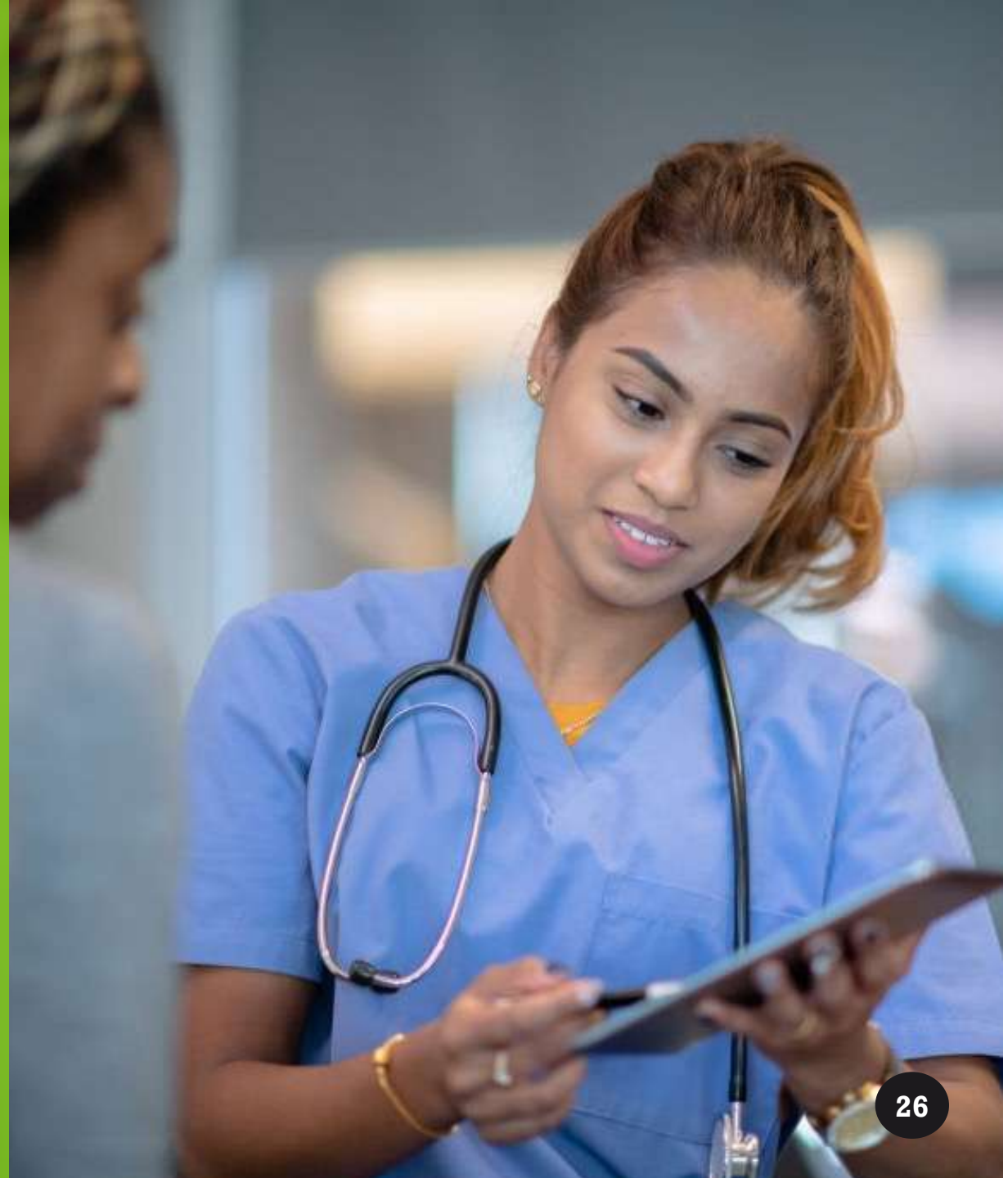


Content

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

2. How we apply these data sources to recommend personalised nutrition interventions and meal plans

3. How we are dealing with the challenges of client compliance and reporting outcomes



Challenges of client compliance and reporting outcomes

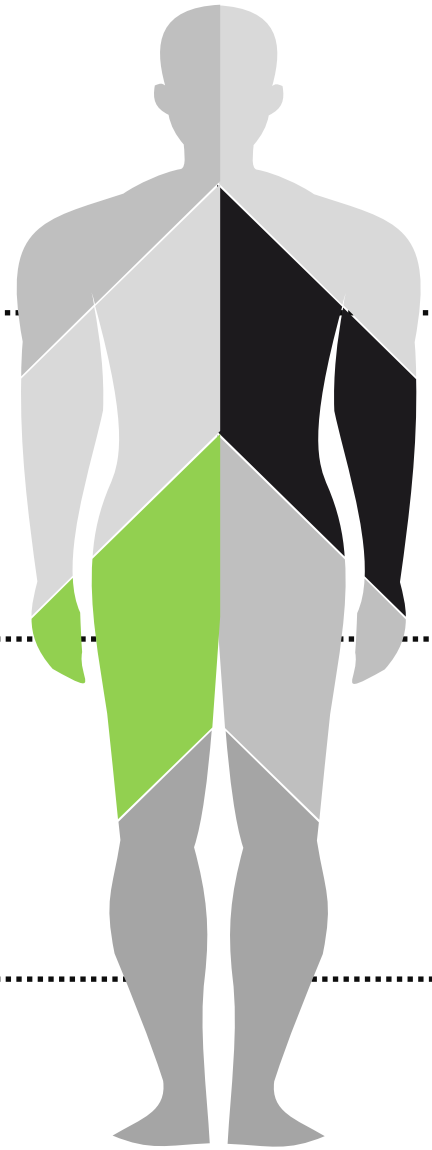
Client drop off rates

Success walking out the door

Affordability

Our Solution

1. Genetic variations relating to gene-nutrient and gene-environment interactions.
2. Online consultation questionnaires
   Environment, lifestyle, phenotype, food diary, blood biomarkers
3. Multivariate algorithm reports risk scores



4. Reports displayed in client portal
5. Personalised nutrition plans powered by our proprietary nutrition analysis platform
   Database of 2.5 million recipes
6. VICI our nutrition coaching App is designed to “nudge” behavior changes and to track progress.

Health Risk Analysis Framework And Approach
To Personalised Nutrition

Nutrition Coaching App

VICI

Feedback

Contain feedback questionnaires using chat bots ...

- How do you feel?
- How are you sleeping?
- What's your blood sugar score?

Engagement

Feature competitive online games aimed at educating clients on nutrition and meals and how to manage blood sugar through diet and lifestyle.

Affordable

Free access
Subscription with added features

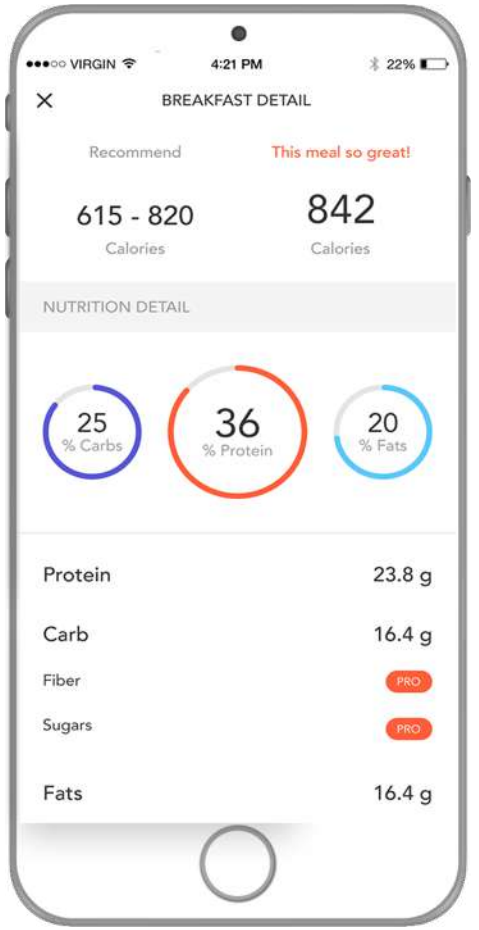
Nutrition Coaching App VICI

Personalised nutrition needs

In conjunction with Quisper, we are developing VICI, a personal coach to nudge clients in to a healthier future.

Powered by:

- Mealplans nutrition platform
- Optimal Health engine
- APIs from retailers + wearables

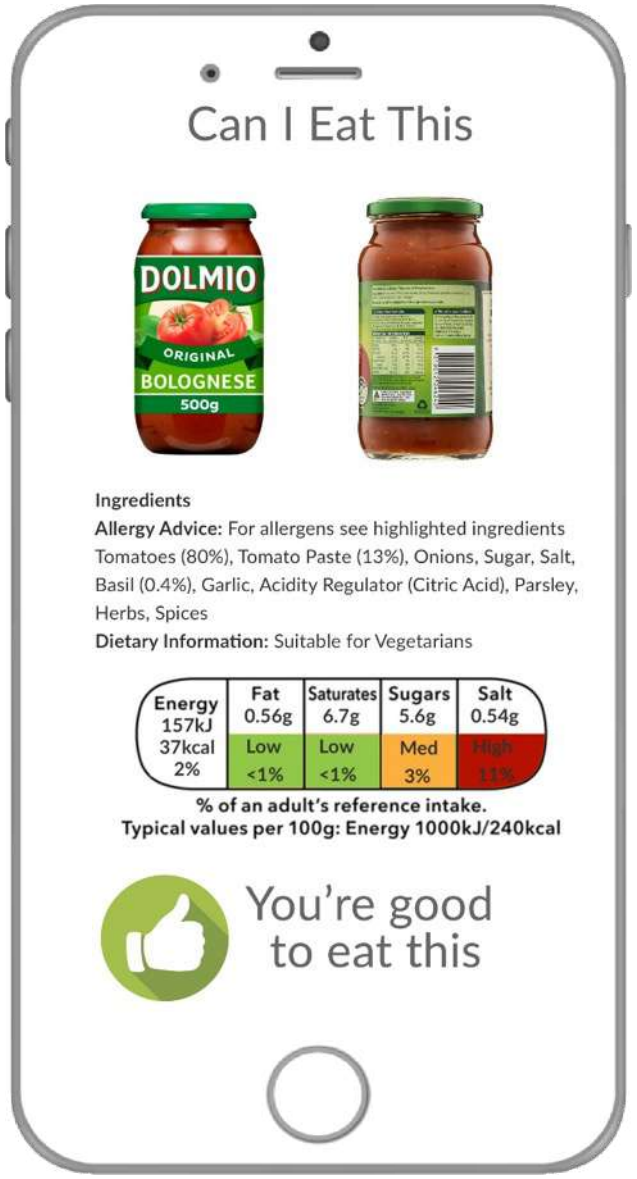


Nutrition Coaching App VICI

Can I eat this?

Search by:

- Product – name
- Product- type
- Product – brand name
- Barcode scanner

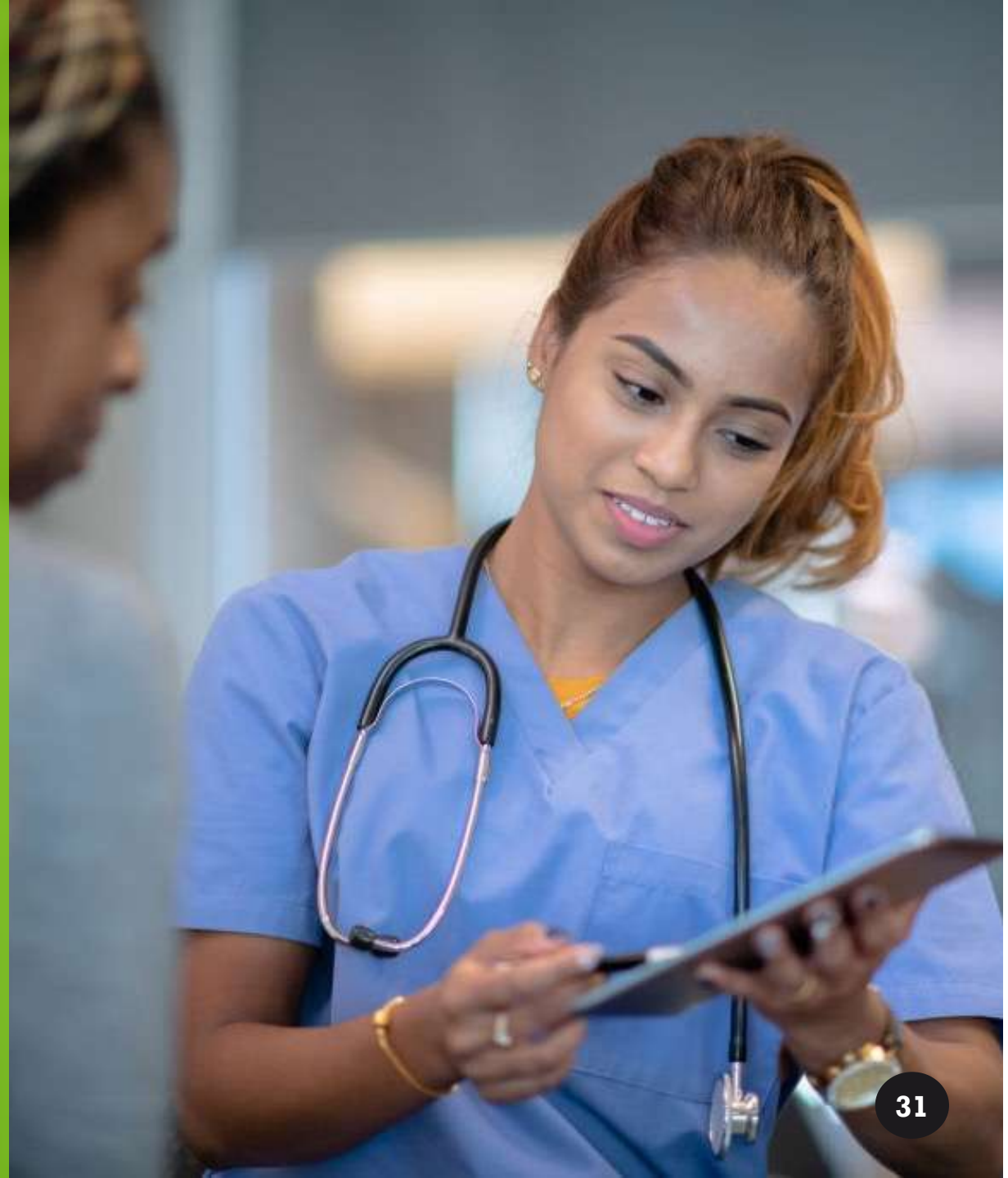


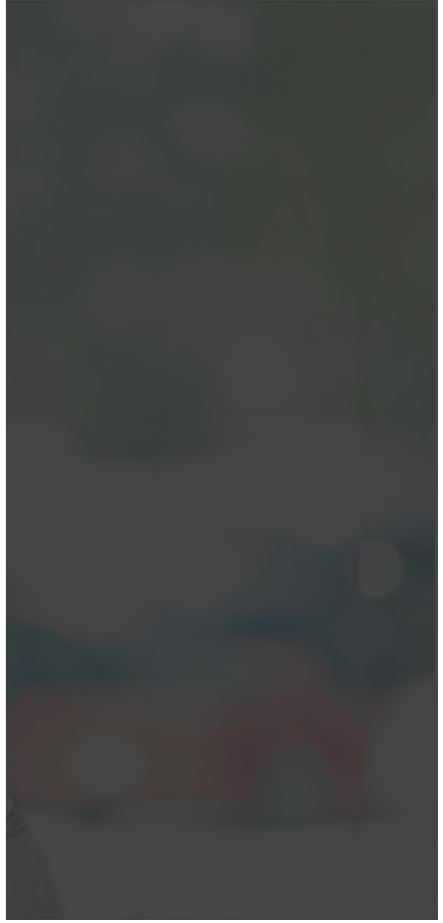
Summary

1. The role of nutritional genomics, consultation questionnaires and blood biomarkers

2. How we apply these data sources to recommend personalised nutrition interventions and meal plans

3. How we are dealing with the challenges of client compliance and reporting outcomes





We are at the beginning of realising the potential of technologies to improve health through diet and lifestyle interventions.

Type 2 diabetes is only one of many chronic diseases that could be prevented by bringing together science, technology and human behaviour.

Contact Details

Bernie Williams

Co-founder, CEO

Email:
bernie@mydnahealth.co.uk

Tel:
+44 (0)1603 861 614

Mobile:
+44 (0)7806 099 453

myDNAhealth
intelligent health and nutrition