

A GLUTEN FREE, NUTRITIONALLY RICH CREATIVE JOURNEY

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Institute of
Food Science
+ Technology

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Genius®

TASTE, GLUTEN FREE, MILK FREE...

... GENIUS' BREAD AND BUTTER!

I will be sharing:

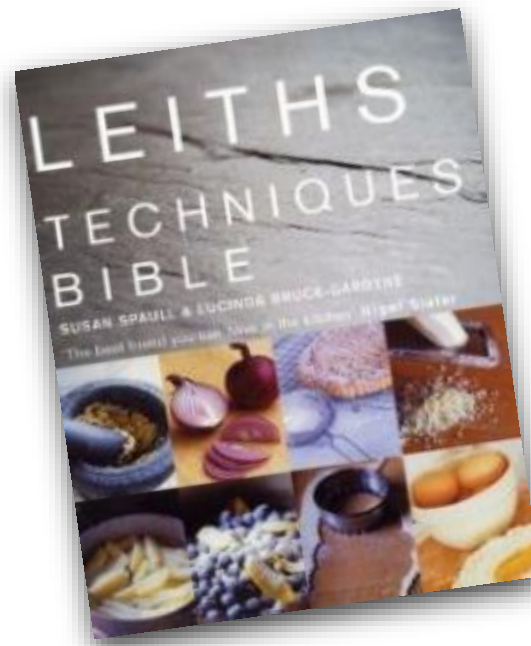
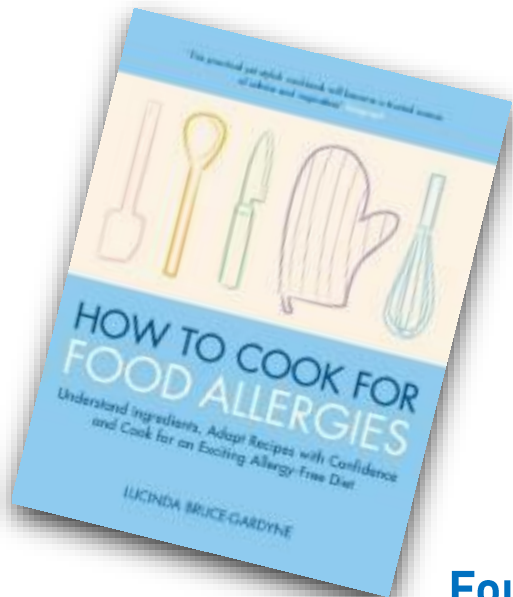
- How Genius started 10 years ago
- How we continue to champion good gut health, through cutting edge innovation
- A job opportunity at Genius



A BIT ABOUT ME..



Physiology



THE
ROYAL
SOCIETY

Founder of Genius Foods, the UK's leading gluten free bakery brand



IN 2005 I LEARNT...



- **The elastic protein gluten, contained in wheat, barley and rye flour, was effecting my son's health**
- **Gluten free bread was poor**
- **New thinking was desperately required to solve this family problem!**

..AND FOR OTHERS MISSING BREAD

38.6%, 19.5M
consumers
buying
Gluten Free

3.5%, 1.8M
HAVE TO

9.7%, 4.9M
BETTER TO

25.4%, 12.8M
LIKE TO

14.1%, 7.1M,
CONSIDERERS

13.2%
Medical Need State

WHAT WAS THE ROUTE OF THE QUALITY PROBLEM?

GLUTEN PLAYS AN IMPORTANT ROLE IN BAKING



Gluten:

- Binds pastry and biscuit dough
- Creates layers in croissants and puff pastry
- Makes bread bubbly, soft and chewy
- Makes cakes spongy and light

PEOPLE ON RESTRICTED DIETS DESERVE UNRESTRICTED LIVES



- Fresh bread is a staple and the ultimate convenience food
- It's inconvenient to bake at home and gluten free bread presents the greatest culinary challenge
- I wanted my son, and others like him, to eat normally

MY VISION

To create gluten free bread that rivalled mainstream bread:

- Fresh, soft and tasty
- Functionality without codex wheat starch
- Nutrition
- Natural ingredients
- Availability
- Cost



... SO I SET TO IT!

FIRST I HAD TO ANALYSE WHAT WHEAT DOES IN BREAD

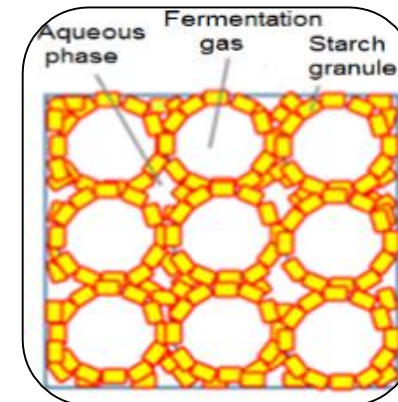
- Bread is made with 50% wheat flour and 50% water
- Wheat flour and water forms an elastic dough that doubles in size as it fills and stretches around bubbles created by yeast
- Risen wheat dough bakes and sets to create fluffy, chewy and springy bread.
- In contrast, gluten free flours like tapioca, potato or corn starch mixed with water makes soup that bakes to hard, heavy, crumbly bricks
- A blend of gluten free ingredients collectively imitating the properties of wheat dough, is necessary to make great gluten free bread



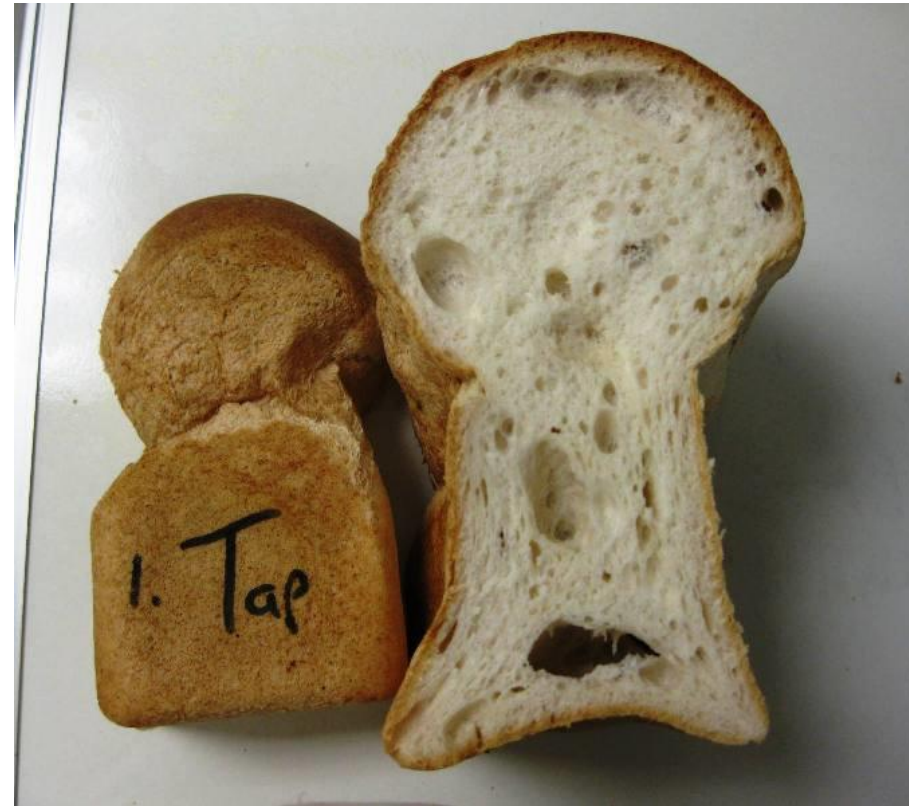
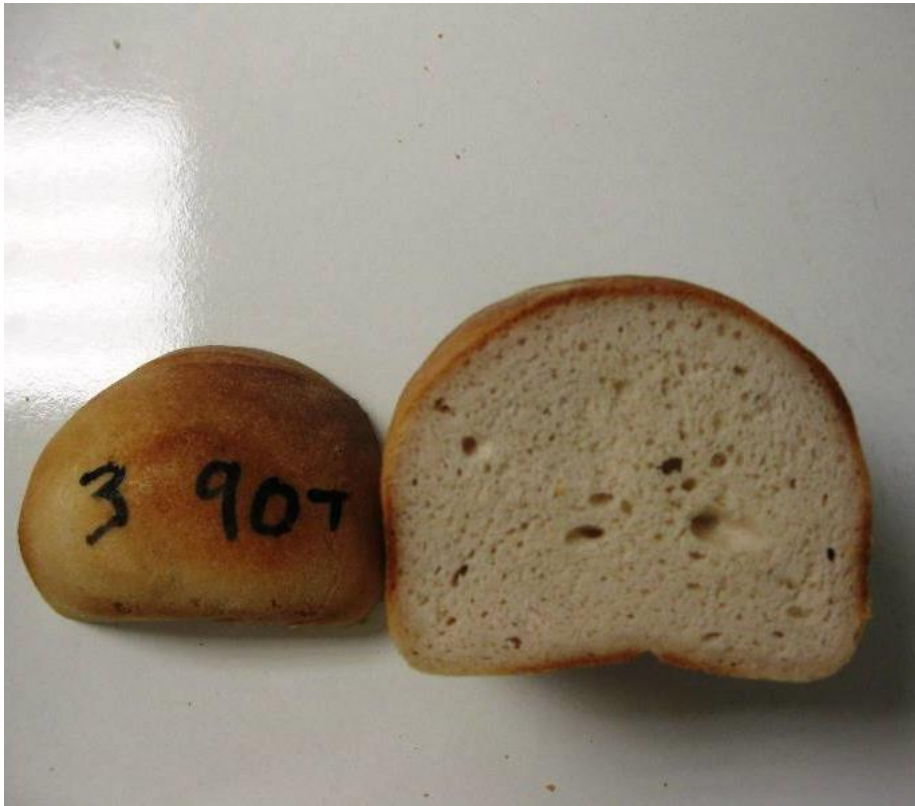
Wheat flour
and water
= dough



Gluten free
flour and
water
= a mess



THE BLEND OF INGREDIENTS IS ESSENTIAL TO GET RIGHT



To create elasticity, a stable rise, setting power and chew

IT TOOK TIME & TENACITY

3 years of hard work

2 years of development in my kitchen

2 broken ovens

1 broken Magimix

INNOVATION BEGINS FOR REAL, WHEN YOU START TO SCALE

- 1 year to scale my 2kg Magimix recipe to a 200kg batch at the UK's largest gluten free bakery
- At scale, a small change to recipe or process created wild changes in the product
- The bread dried out in 24 hours. It had to remain soft for 8 days if retailers would consider stocking it
- The ingredients, from all over the world functioned differently from batch to batch and we didn't know why
- There was no one to ask or papers to refer to



NEW THINKING AT SCALE REQUIRES...



- Team work
- A continuous stream of new ideas
- An open mind set
- Commitment to the cause, no matter how painful
- A clear and common vision of what you are working to create
- Determination to achieve 'WOW Factor', no matter how big the challenge

ORIGINAL GENIUS BREAD LAUNCHED IN 2009

14
Ingredients

Unsliced

330g
kCal / 100g

Protein
7.4g White
6.5g Brown

Fibre
4g White
6g Brown



Milk, Soy,
Gluten Free

Fat
15% White
14% Brown

Egg only
allergen

Labour
Intensive
Process

Limited
Production
Capacity

Genius

2009 UK LAUNCH

OVERWHELMING CONSUMER RESPONSE

Success due to:

- Strong consumer need for fresh bread
- Ground breaking product, solving a genuine problem
- Social media
- Retail and investor interest
- Expert team work



GENIUS CREATED...

- **A new Fresh Free From Category**
- **A new standard for competitors to match**
- **An overwhelming demand for fresh and tasty gluten free bread**
- **A return to sandwiches, packed lunches and picnics**
- **The desperately needed possibility of other tasty products**
- **We brought normality and relief to peoples lives**
- **We raised the bar**



INNOVATING TO KEEP UP WITH DEMAND

IN 6 MONTHS WE WERE UK BRAND LEADERS WITH A 50% MARKET SHARE OF GLUTEN FREE BREAD

Within weeks of launch consumer demand was overwhelming

- We became capacity constrained, not helped by batches of ingredients behaving differently

Within months, we were designing an automated line: To increase capacity and efficiency

- We also designed a nutritionally improved recipe in 2010, in line with consumer needs

High in Fibre

Reduced Fat
by 40%



Vitamins &
Minerals

FODMAP
friendly

No artificial
preservatives

Reduced kCal
by 20%

Genius

AS DEMAND GREW FOR ADDITIONAL PRODUCTS, WE NEEDED TO OWN MANUFACTURING



IN FEBRUARY 2013, WE BOUGHT THE BAKERY I FIRST APPROACHED



AND LAUNCHED A "BREADS OF THE WORLD" RANGE



EACH PRODUCT WE DEVELOP PROVIDES ITS OWN CHALLENGES TO OVERCOME - STRUCTURE, SHAPE, SIZE, SHELF LIFE & USAGE, TASTE

- It takes time and care to get each product right
- Trying to innovate too quickly can lead to poor product quality and disappointed consumers



AND DIFFERENT MARKETS HAVE DIFFERENT REQUIREMENTS



Innovation is required to tailor our offering for different markets and channels

- Each market likes a different product range with different flavours
- Shelf life and supply chain requirements vary
- Portion sizes and packaging solutions are different for retail and foodservice

Multiple formats create complexity, both logistically and in production.

Maintaining a can do approach to R&D is vital



EXPERTISE IS KEY

TO STAY AHEAD IN THIS COMPETITIVE SECTOR THE GENIUS R&D TEAM INCLUDES FOOD SCIENTISTS, ARTISAN BAKERS. WE ALSO WORK WITH PHYSICISTS AT EDINBURGH UNIVERSITY

Together, scientists and bakers

- Pioneer formulations and processes
- shorten development time
- increase production efficiency
- develop mainstream, tasty, reliable products
- continuously improve the nutritional value of our products



WE STAY CLOSE TO CONSUMER TRENDS AND CAN SEE CLEARLY THAT THE LANDSCAPE IS CHANGING

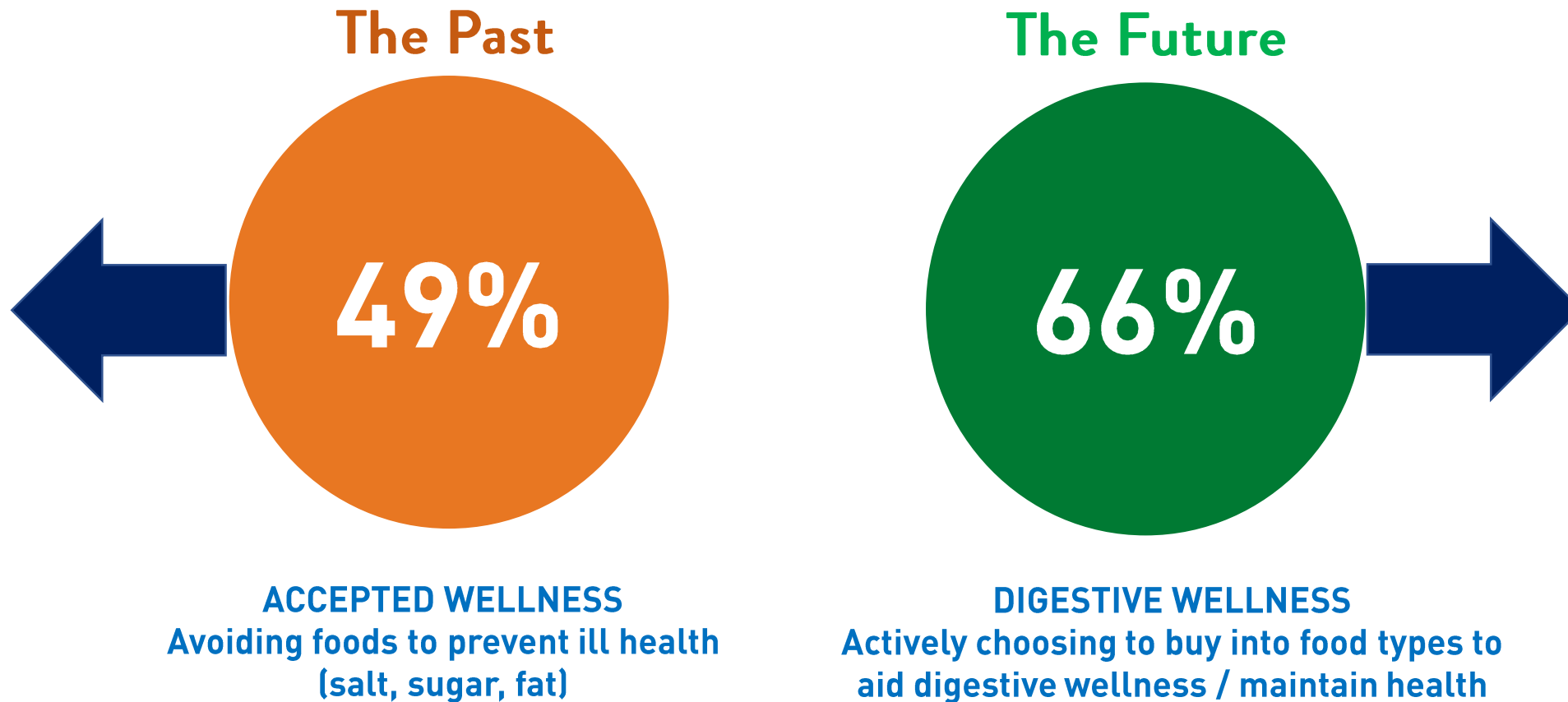


Providing solutions for consumers on their journey to Digestive Wellness is next ...



THE SHIFT IN BEHAVIOUR IS SIGNIFICANT

Healthy eating is moving from being **medical** (functional) motivated to **wellness motivated** (functional & emotional)



CUSTOMERS ARE WANTING THEIR MANY WELLNESS NEEDS MET

Top consumers must haves:

- High Fiber (> 6g/100g)
- Gluten free
- Low sugar

They are also looking for:

- Plant Based
- Vegan
- Pre-biotic
- Pro-biotic
- Synbiotic



MOSTLY CENTRED AROUND DIGESTIVE WELLNESS

THE ADVICE IS TO EAT MORE WHOLEGRAIN BREAD FOR MORE FIBRE AND WE'VE MADE SURE GENIUS GLUTEN FREE BREAD IS THE HIGH FIBRE WINNER!

Wholegrain bread or cereal for a fibre fuelled breakfast?

2 slices of toasted
Warburtons Seeded Batch



3.6g of
fibre

2 Weetabix



3.8g of
fibre

2 slices of toasted
Genius Triple Seeded



8g
of fibre



Genius Triple Seeded bread has 2x the fibre of the top 5 branded gluten containing breads



WE'VE MADE SURE THE OTHER TRAFFIC LIGHT NUTRITIONALS STAND UP TO SCRUTINY TOO

White Bread

Nutrition Values
per 100g



Fibre:	2.1g ●	2.3g ●	3.9g ●	9.3g ●
Sat Fat:	0.4g ●	0.5g ●	0.4g ●	0.4g ●
Salt:	0.95g ●	0.98g ●	0.86g ●	0.9g ●
Sugar:	2.5g ●	3.0g ●	4.0g ●	3.9g ●

Encouraging consumers to listen to their guts

Key:

Fibre	Sugar	Salt	Sat Fat
● High (6g+)	● Low (<5g)	● Low (<0.3g)	● Low (<1.5g)
● Source (3g - 5.9g)		● Med (0.4g - 1.4g)	

In addition to high fibre levels we are

- Lowering sugar, salt and sat fat further
- Providing vegan alternatives
- Incorporating prebiotics, probiotics and plant based protein

WHAT'S YOUR GUT FEELING?

Genius
GLUTEN FREE

TRIPLE SEEDED FARMHOUSE

2X FIBRE OF BEST-SELLING REGULAR BREADS

HIGH IN FIBRE | GLUTEN FREE | MILK FREE

GENIUS TRIPLE SEEDED BREAD HAS 2X THE FIBRE OF THE TOP 5 BRANDED GLUTEN CONTAINING BREADS. BASED ON IRI UNIT SALES 52 W/E TO 6TH MARCH 2019.

GENIUS HAS LAUNCHED A GOOD FOR THE GUT RANGE



- Beetroot & Kale Wraps
- 3x Fibre compared to regular wraps (with gluten)
- Vegan

- Protein Punch & Carb Cutter Bread Crisps
- High Fibre
- 1/3 less Carbs and 50% more protein compared to regular crisp breads (with gluten)
- Vegan

- Fibre Fest & Protein Punch Cobs & Rolls
- 2x Fibre / 50% more protein compared to regular bread (with gluten)



THE DEVELOPMENT OF FRESH AND TASTY GLUTEN FREE BAKERY PRODUCTS IS A NEW ART AND SCIENCE AND NOT FOR THE FAINT-HEARTED

Factors required to progress product development in this category:

- Vision
- Consumer focus
- Determination
- Grit
- Free thinking
- A data driven scientific approach
- Significant investment
- Risk-taking
- Strong team work





THANK YOU