National School of Healthcare Science

NHS
Health Education England

The STP, its aims, structure and overview

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Outline of talk

- Some FACTS and FIGURES about Healthcare Science
- Aims Structure and Overview of the programme.
- What does the Future Look like for YOU
- TOP TIPS for Success

Healthcare science workforce: FACTS

- Science is the fastest moving area in medical practice.
- HCS operate at the cutting edge of novel concepts around diagnosis, treatments, patient care and communication.
- Operate across all pathways of care.
- Responsible for scientific and clinical services that are both routine and highly specialised.
- Initiate complex creative use of technological advances.
- NHS Scientists instigate significant contributions to the innovation pathway, from invention through to translational research, adoption and to diffusion and to knowledge management.

Scale & impact of healthcare science

- There are approximately 60,000 healthcare science staff working in the NHS in the UK (about 5% of the workforce.
- Mostly based in the acute sector, your work affects almost all patient pathways in primary, secondary and tertiary care and informs more than 80% of ALL clinical decisions.
- Accurate and objective measurement of function is a key component of modern medicine, helping to diagnose conditions, tailor treatment to the individual and monitor their response.

So, what is the STP?

The STP is a full-time, three-year programme which integrates work-based learning with a part-time MSc in Clinical Science

University

MSc in Clinical Science:

- Academic teaching and assessment

Employer

Work-based training:

- Practical training and assessment
- Contract of employment

The School and the STP

The National School of Health Care Science (NSHCS) works in partnership with your university, your training provider, Health Education England and the professional bodies.

The NSHCS are here to support over your 3 years.

The aims of the STP

- Professional registration
- World class performance in clinical science
- The acquisition of an appropriate level of underpinning scientific knowledge
- Trainees will become competent in undertaking complex scientific and clinical roles
- Defining and choosing investigative and clinical options
- Making key judgements about complex facts and clinical situations within a quality assurance framework
- Trainees will work directly with patients and all will have a positive impact on patient care and outcomes
- Trainees will be involved, often in lead roles, in innovation and improvement, research and development

How do I complete the programme?

Complete MSc

+

Complete e-portfolio of workplace-based assessment

+

Pass Objective Structured Final Assessment

=

Certificate of completion of the programme

How do I complete the programme?

Work based modules are formally assessed using:

- Direct Observation of Practical Skills (DOPS)
- Observed Clinical Event (OCE)
- Case-Based Discussion (CBD)
- Multi-Source Feedback (MSF)
- Submission of evidence of competencies
- Mid-term Review of Progression

Objective Structured Final Assessment (OSFA)

- This takes place in July of your final year
- It is the final exit assessment organised by NSHCS

OneFile – your e-portfolio on the STP

You also need to complete:

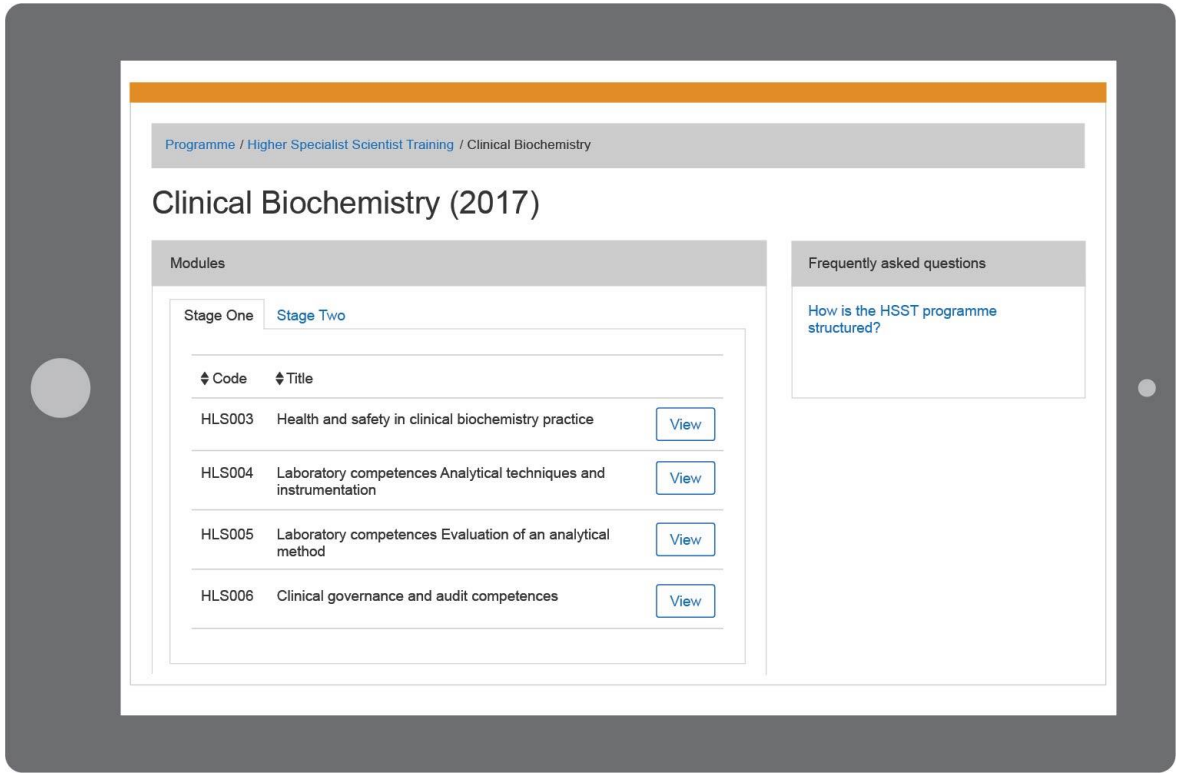
- An e-portfolio of evidence; submitted by you for assessment and approval

The e-portfolio allows you to track and visualise your progress against the completion requirements for individual modules for your programme

The School and your training officer will also have access to the e-portfolio

The Curriculum Library and the STP

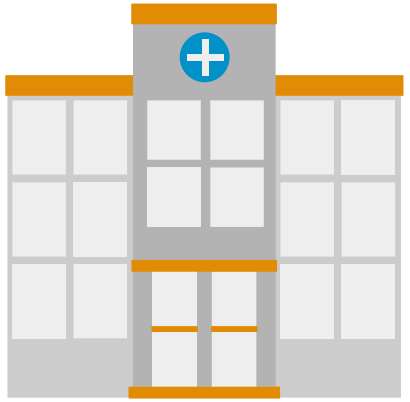
- Current curriculum
- Module information which includes:
  - Work based assessments
  - Competences
- Share your list of competences and module information



https://curriculum.nshcs.org.uk

Overview of your 3 years on the STP

In the first year…



Workplace

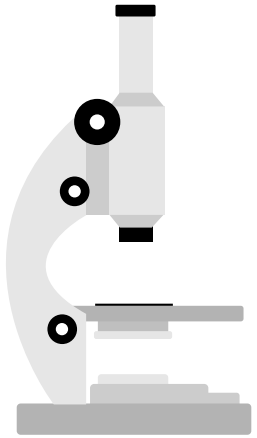
- Work based induction
- Work based mandatory training
- Core modules
- 4 Rotational modules

University

- University modules - titles in your MSc may not be exactly identical to the work based modules shown in the e-portfolio
- Complete your MSc examinations in May/June

Overview of your 3 years on the STP

In the second year…

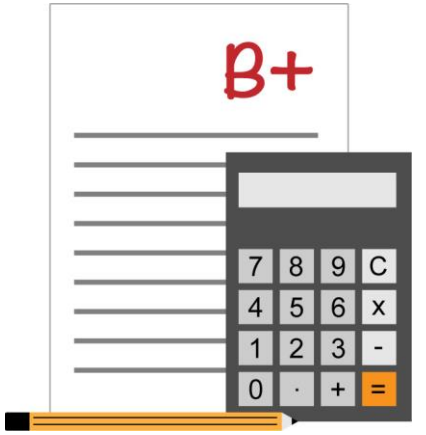


Workplace

Start specialty modules and research project

NSHCS

Complete your Mid-term Review of Progression (MRP)

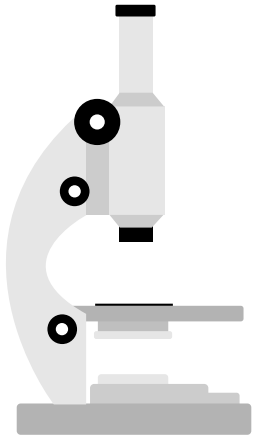


University

Complete your MSc examinations

Overview of your 3 years on the STP

In the third year…

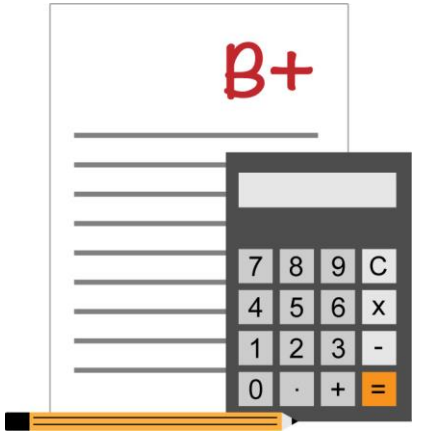


Workplace

Finish specialty modules and research project

OSFA

Complete your OSFA, which is your exit assessment



University

Complete your MSc examinations

Overview of your 3 years on the STP

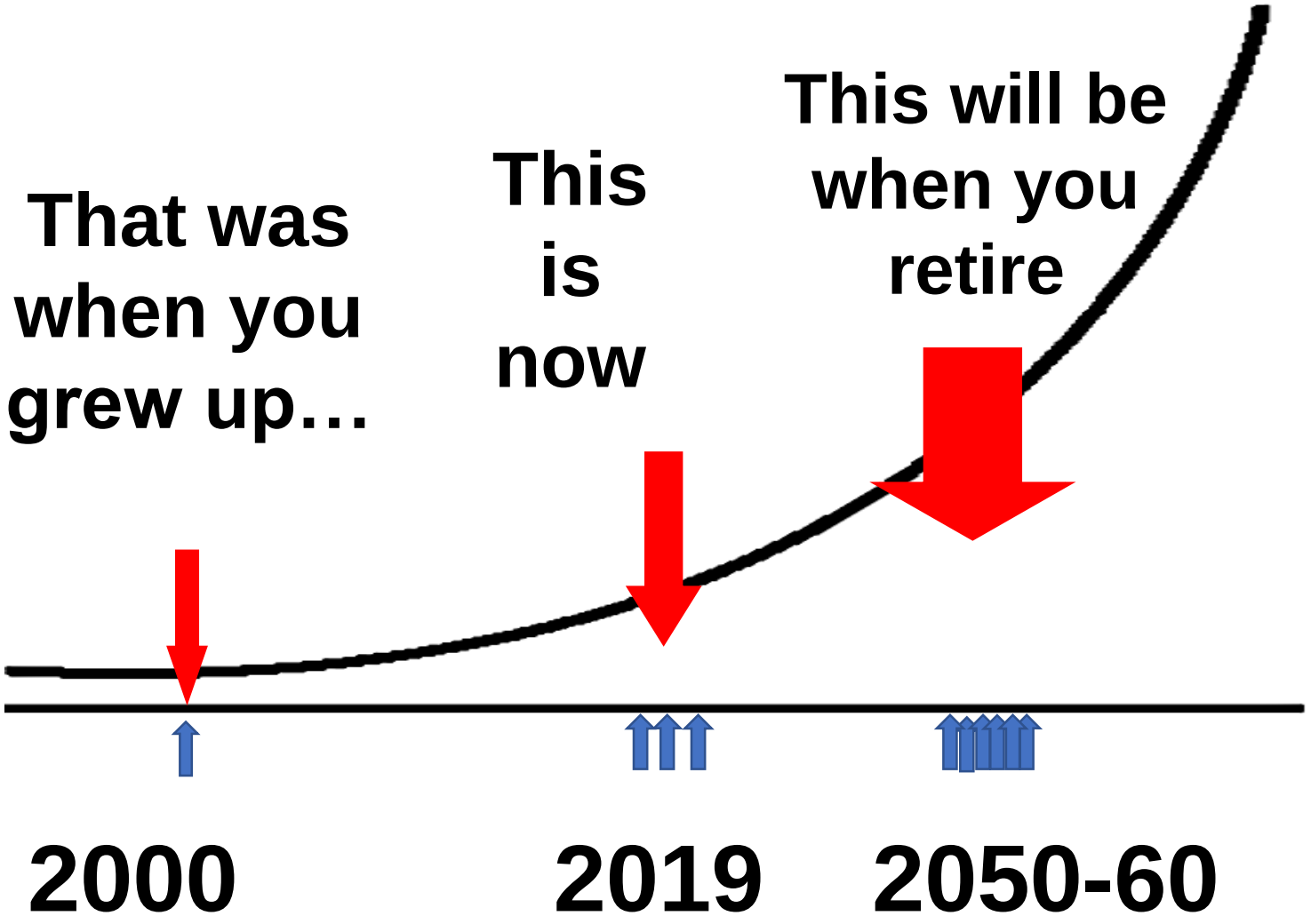
Throughout the 3 years you will also need to complete your e-portfolio of evidence

Key to success

Successful completion

- The NSHCS will issue you with a Certificate of Completion
- The Academy of Health Care Science (AHCS) will issue you with a Certificate of Attainment of Equivalence
- You can use your Certificate of Attainment or Equivalence to apply to the HCPC (regulatory body) and apply to become a registered clinical scientist

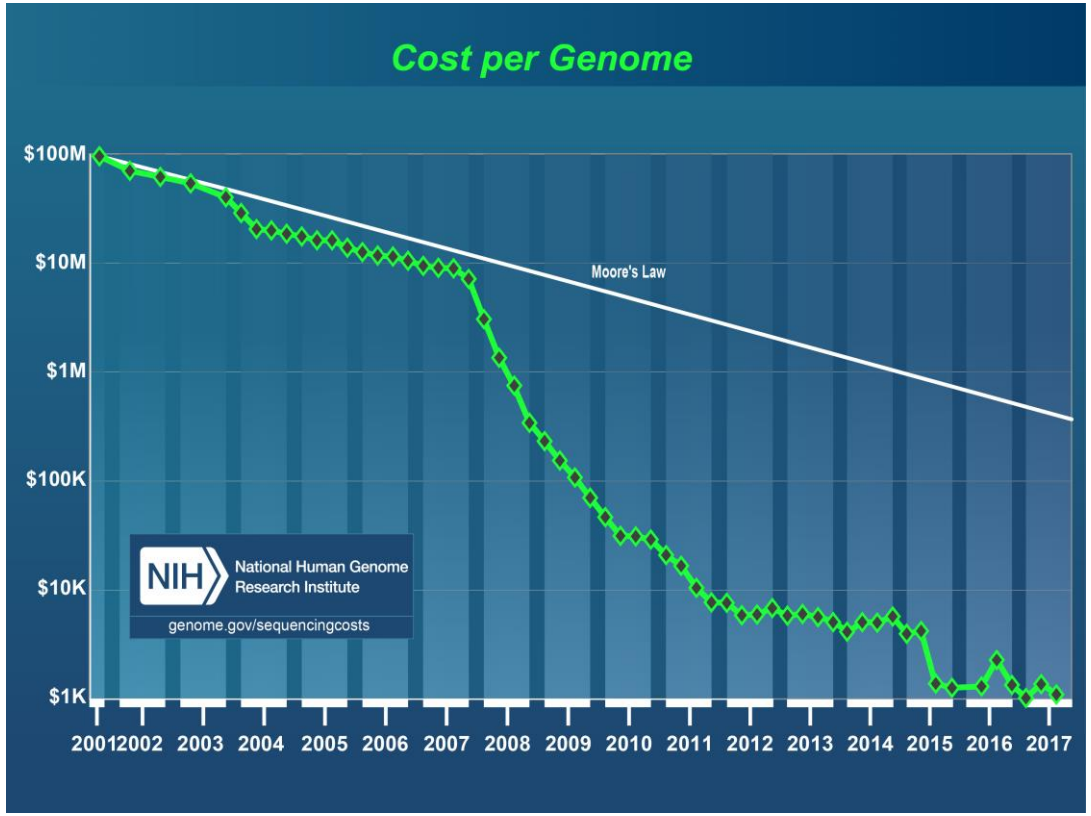
Speed of change is increasing



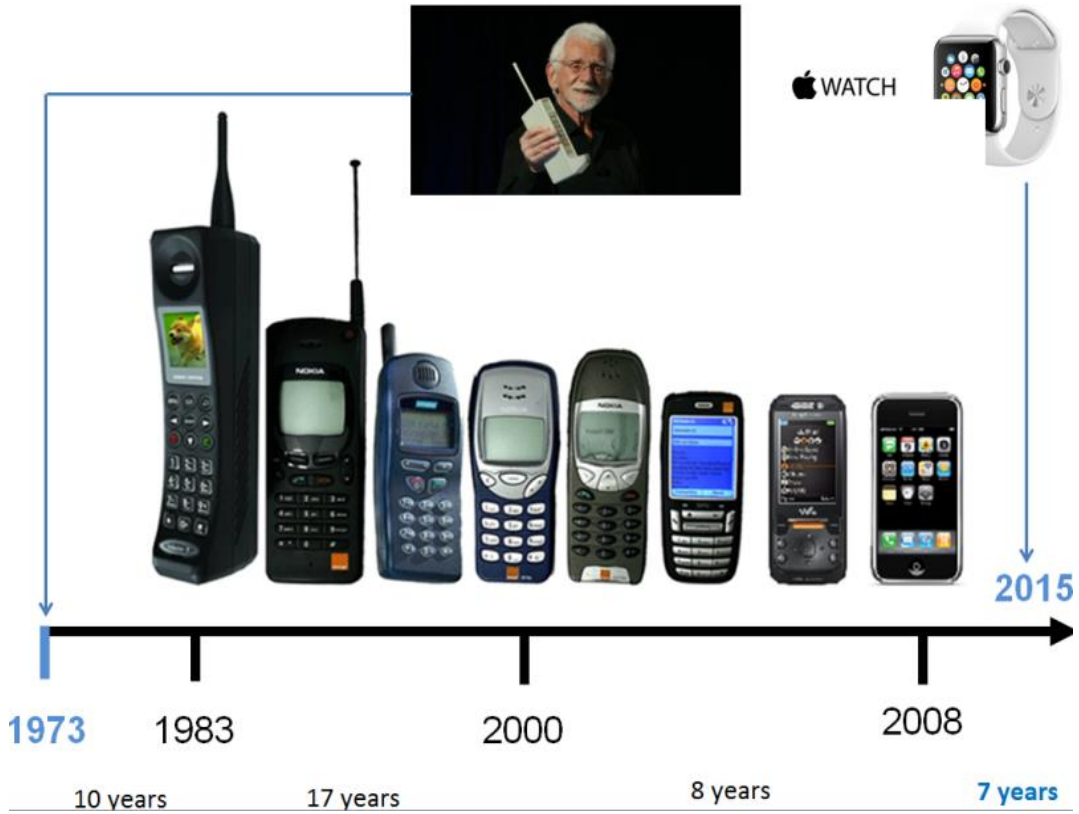
Changing healthcare

Healthcare delivery will be vastly different in future

- Genomics revolution
- Data and technology avalanche



Healthcare Scientists are at the Centre of this change



Precision and Personalised Medicine

Now

- 'One size fits all' treatment based on **symptoms**
- Organ/ **speciality** organisation of services and professions
- **Limited** use of genomic/molecular markers
- Diagnostic & other clinical **data not linked**

'One size fits all' treatments & intervention

2020?

- New taxonomy of medicine based on underlying **cause** & personal **response**
- Comprehensive **linked** diagnostics to give full picture
- **Tailored therapies** for better outcomes
- **Integrated** clinical services taking a **'whole body'** approach

Individually-tailored approach

Integrated diagnostics for personalised medicine

Individual problem

↓

Targeted quality diagnostics

↓

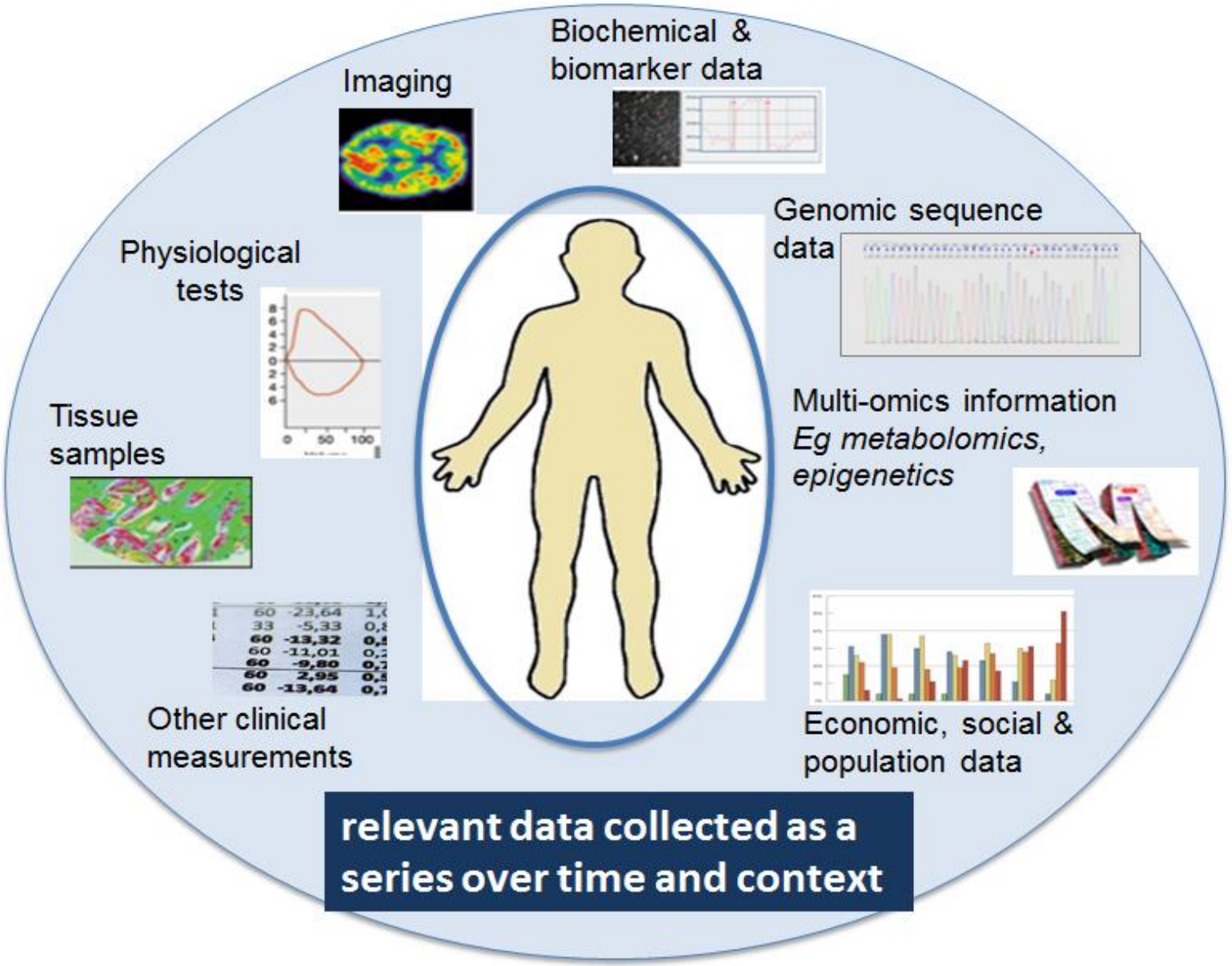
Coordinated dataset

↓

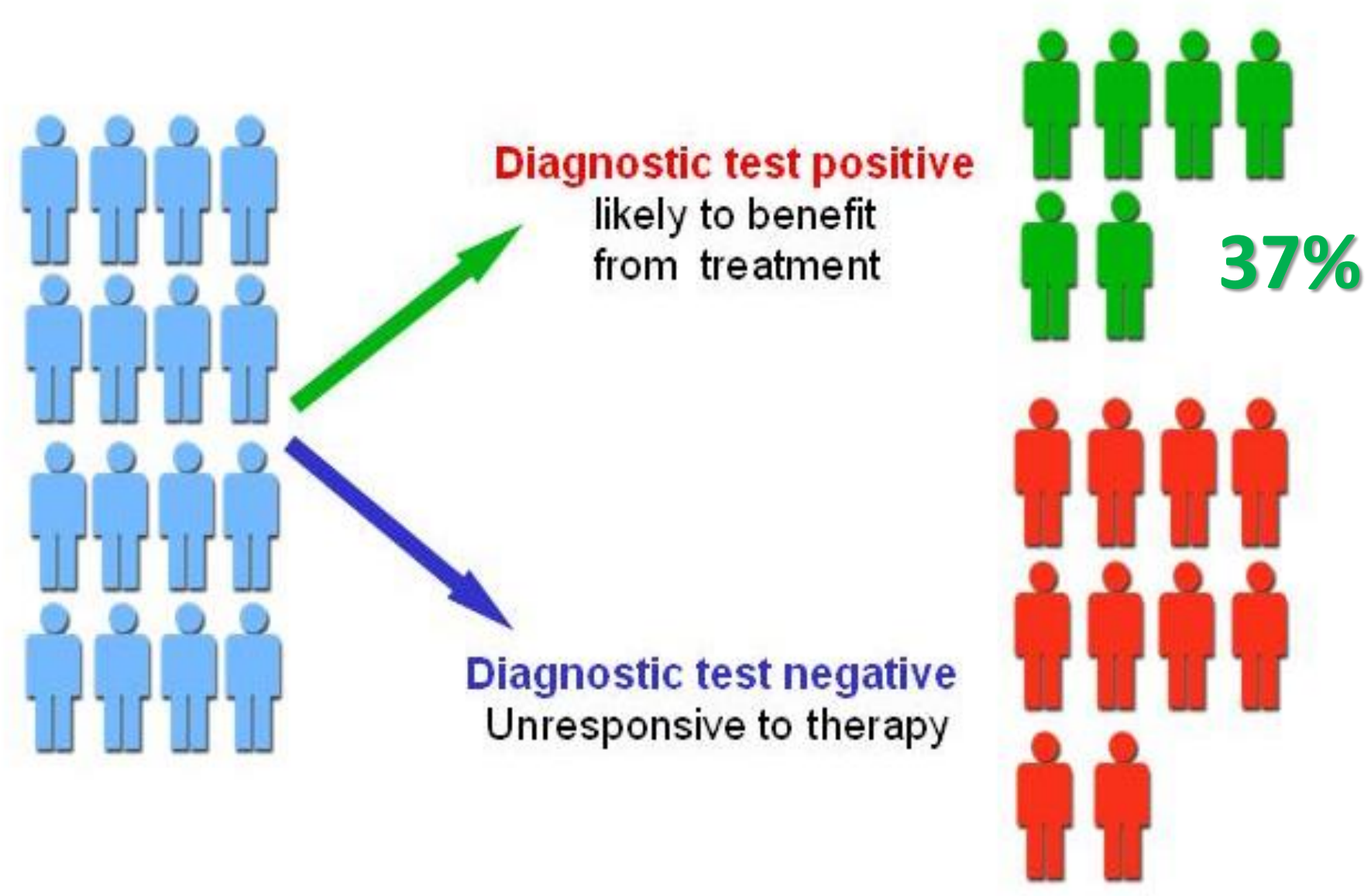
Genotype and phenotype

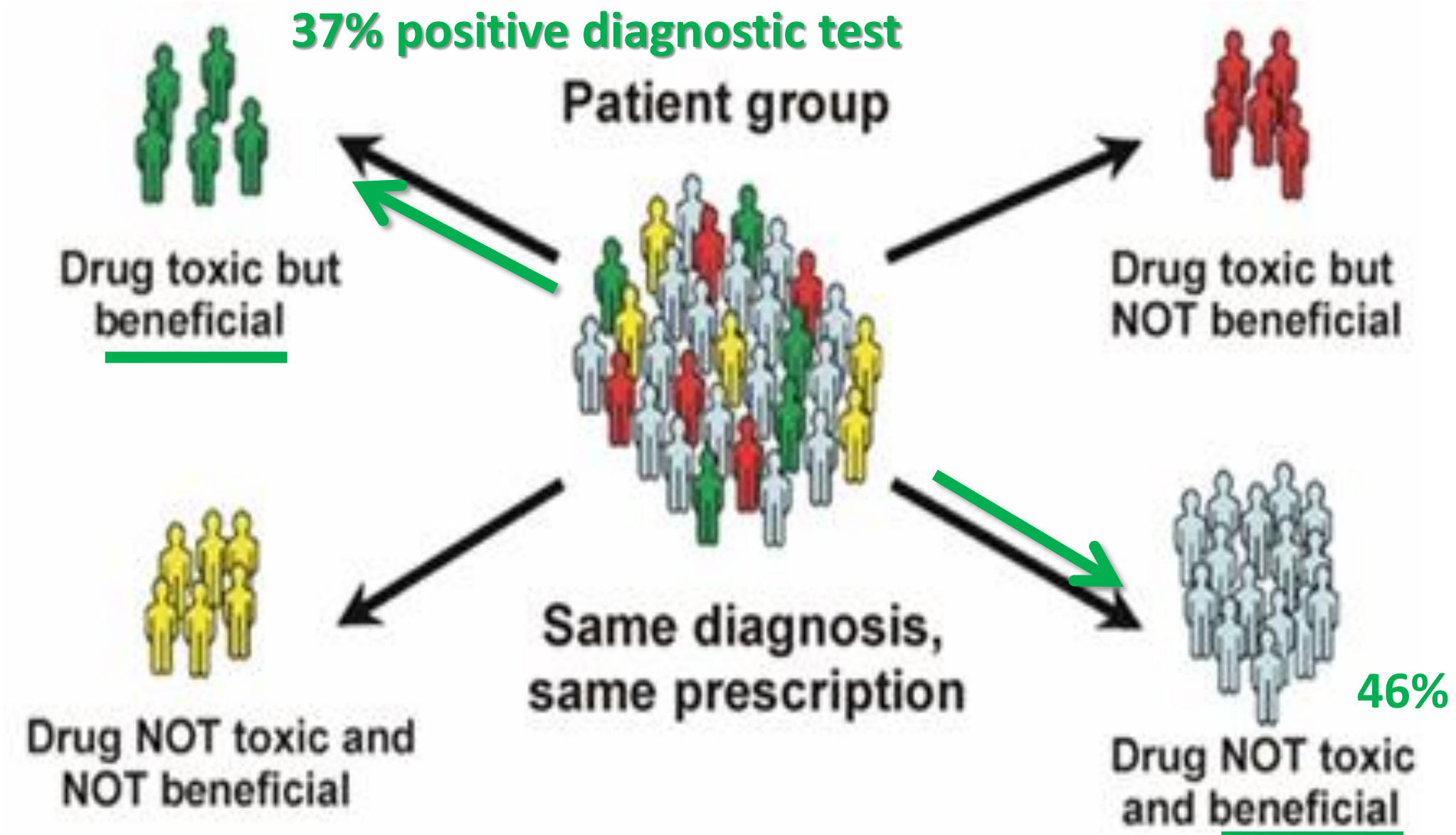
↓

Personalised treatment

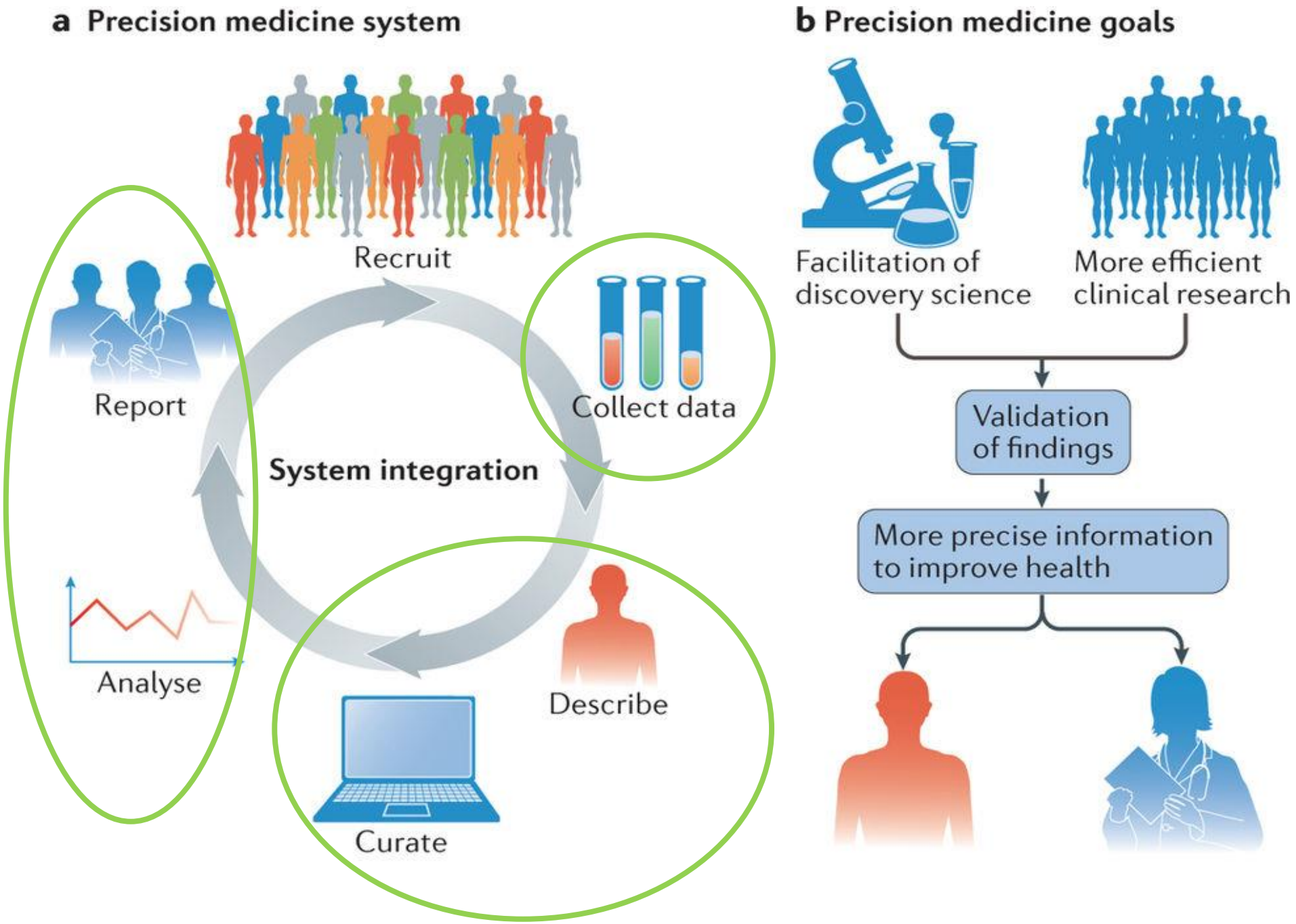


Precision Medicine: future vision




37% positive diagnostic test
Patient group
Drug toxic but beneficial
Drug toxic but NOT beneficial
Same diagnosis, same prescription
Drug NOT toxic and NOT beneficial
46%
Drug NOT toxic and beneficial

HOW can healthcare scientists help to change this?


a Precision medicine system
Recruit
Collect data
Describe
Curate
Analyse
Report
System integration
b Precision medicine goals
Facilitation of discovery science
More efficient clinical research
Validation of findings
More precise information to improve health

Senior Healthcare Scientists are more and more becoming custodians of vital healthcare data for patients.

Genomic diagnosis tells us what the individual problem is ALSO: guides clinical management

***KCNJ11* p.V59M**
Permanent diabetes and developmental delay

Sulphonylurea therapy

EIF2AK3* p.E371
Wolcott Rallison Syndrome

Liver Transplant

FOXP3
c.227delT
IPEX syndrome

Bone Marrow Transplant

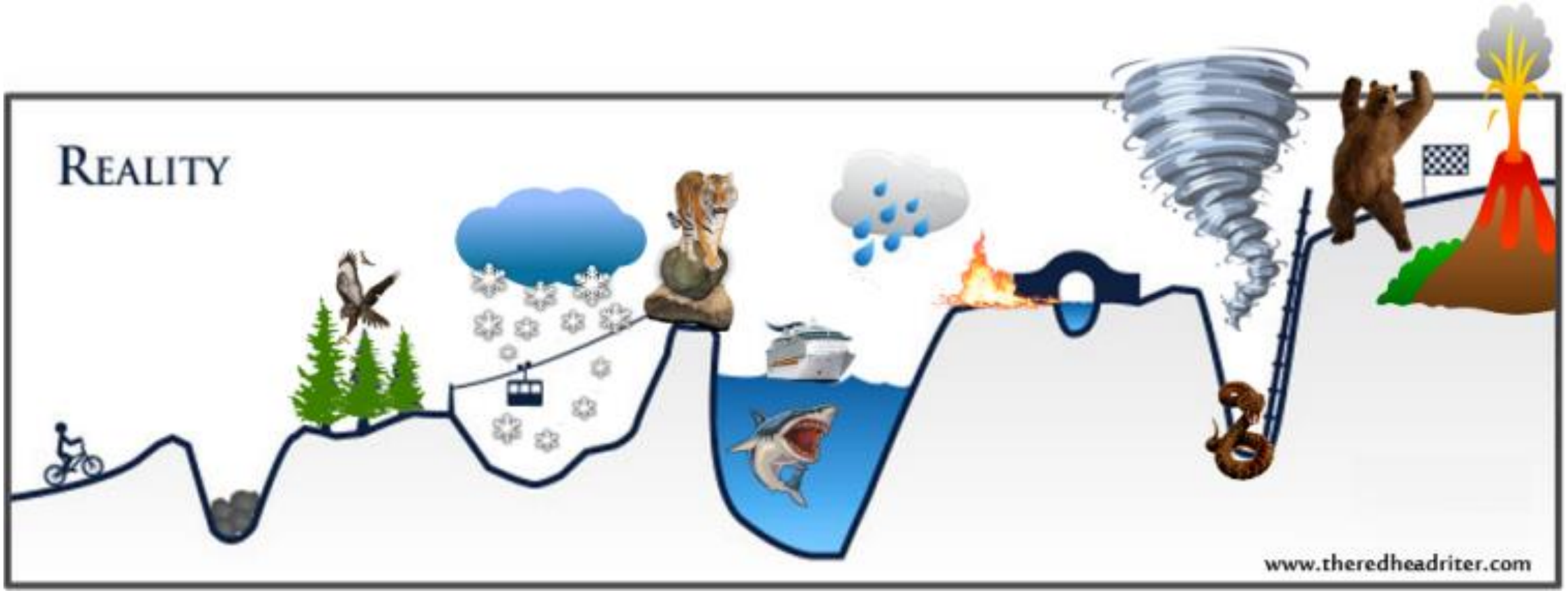
***GATA6* c.1448-1455del**
Syndromic pancreatic agenesis

Insulin and exocrine supplements

STAT3 p.T716M
Multi-organ autoimmune disease

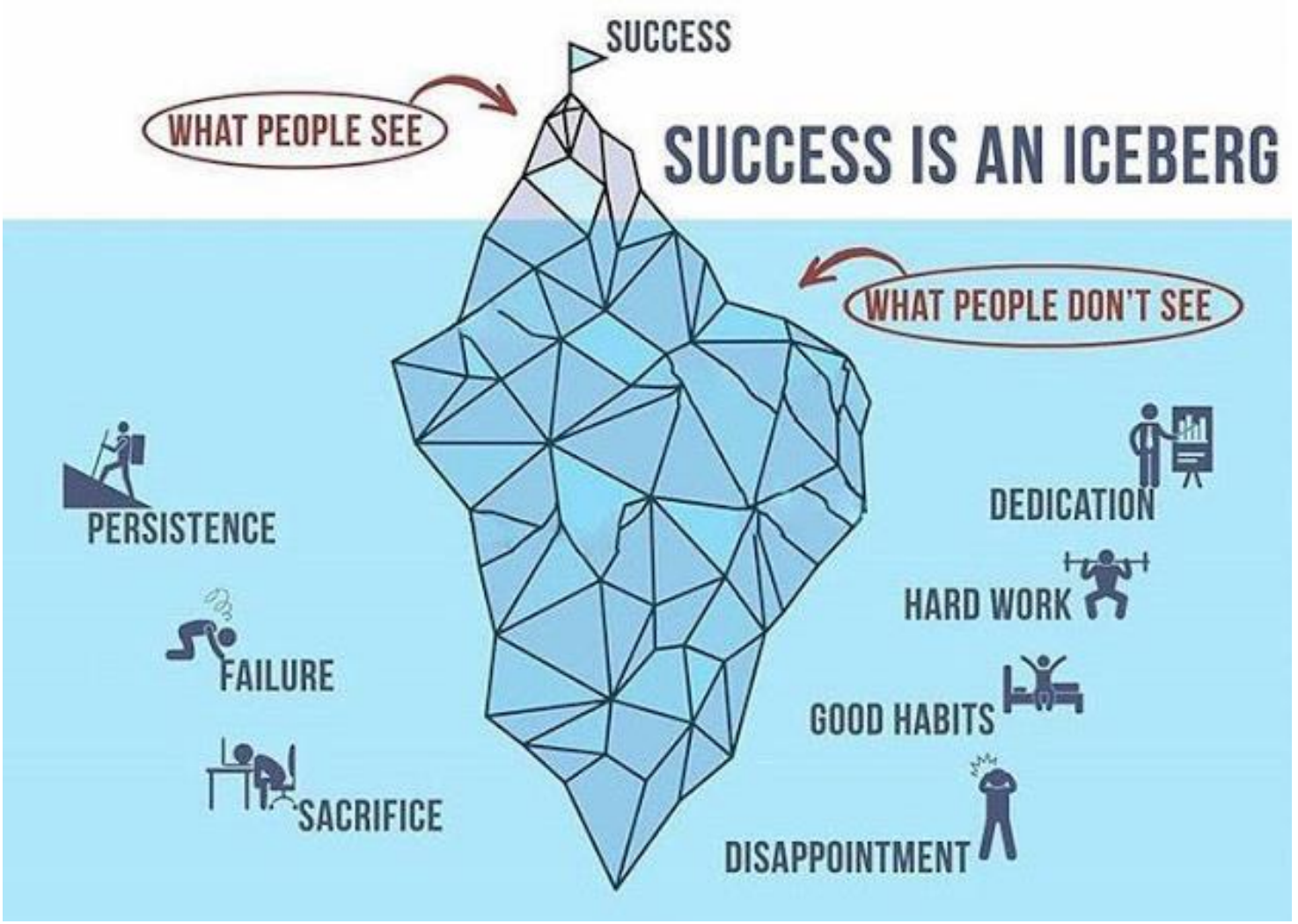
STAT3 inhibitor


YOUR PLAN


REALITY
www.theredheadriter.com

3 years from now…the iceberg illusion

3 years from now…the iceberg illusion



TOP TIPS for Success

- Be collaborative
- Talk to one another: Social Media/Facebook **
- Seek out Trust Lead Scientists
- Seek out Departmental Educational Leads
- Seek out Alumni of the programme
- BE PREPARED: to be a pioneer!
- Contact University/ NSHCS for ideas,help,support
- EXPECT CHALLENGES !
- STAY POSITIVE **..... It is a journey!**

Social Media

- **BE AWARE of its dangers**
- **GPs AND Scientist should avoid indiscreet postings on social media**
- So-called ‘closed’ social media groups still pose risk, says Medical Defence Union.

- * Rimmer A. Doctors’ use of Facebook, Twitter, and WhatsApp is the focus of 28 GMC investigations. BMJ 2017;358:j4099. doi: 10.1136/bmj.j4099

- https://www.onmedica.com/newsArticle.aspx?id=ea0283e0-2ade-49d7-94f3-52fec560a474&utm_source=eshot&utm_medium=email&utm_campaign=20170906CSNews-NonPromoGPs