

Building Collaborative Networks for Innovation

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RANDOX

“revolutionising healthcare through continuously improving diagnostic solutions”

History

- Randox was founded in 1982
- The objective – to develop, manufacture and sell clinical chemistry kits, thereby creating useful employment
- The first kits were developed and brought to market in 1982

History

- Everything we did was from first principles – green field
 - New products/technology
 - Unknown market
 - Unheard of supplier
 - No business experience
 - Little money
- Nothing but faith, determination and self belief
- A vision and desire to develop medical products that would help improve human healthcare





Randox Laboratories Limited

- Privately owned diagnostic and instrument company
- UK and Ireland's largest indigenous diagnostic company
- Established in 1982
- Employs 850 people
- 200 scientists and engineers



Randox has invested substantially in both expansion and automating manufacturing

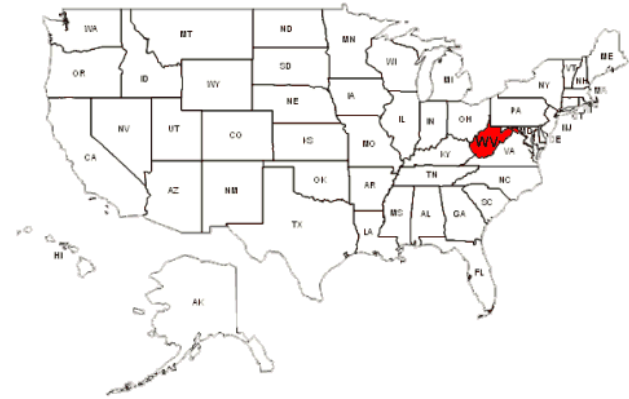
Manufacturing, Packing & Despatch



Radox Teoranta, Donegal, Ireland



New facility, West Virginia, USA



We supply quality products to:

- Hospitals, clinical laboratories and veterinary and research laboratories
- Over 130 countries
- An estimated 30,000 clients using Randox products.

In 2009:

- 4 billion diagnostic tests manufactured by Randox.

Niche Success

- HDL – Cholesterol
 - 9% of all HDL Cholesterol tests executed in the world
- LDL – Cholesterol
 - 11% of all LDL Cholesterol tests executed in the world

- 6th largest manufacturer of clinical chemistry reagents in the world
- 4th in QC sera and calibrators
- Number 1 in supply to international EQA schemes
- 23rd position out of the estimated 1,600 diagnostic companies world-wide

***RAN*DOX is a world class manufacturer !**

Collaborative Networks

- Although all the original thinking regarding Biochips was from Radox, we did not have all the technical expertise to achieve our objectives. Hence we developed a number of collaborations and are continuously increasing this number each year.
- We collaborated for three years with Queens University in Belfast on developing our original Manufacturing Equipment for the Biochips – Technology Centre Queens.
- Furthermore we wanted to develop microchips for Clinical Chemistry. A five year collaboration which we have not commercialised as yet with Electronic and Electrical engineers in Queens.

Clinical Collaborations

- We at Randox are scientists and engineers but not clinicians. So having developed our Biochips and the ability to develop many tests rapidly using our patented technology; we require to have our potential new biochips or biomarkers evaluated in a proper clinical setting, to establish whether we can add real value to the patient of the health system.

Cardiovascular Study St. James Hospital Dublin

- The first clinical collaboration was with St. James here in Dublin; whereby Radox employed research nurses who with all the proper approvals, took blood samples from potential Cardiovascular patients entering Accident and Emergency.
- Radox tested the samples and compared findings with the clinical history of the patients. This enabled us to establish the importance and life saving capacity of our Cardiovascular Biochips, far superior to anything else in the World.

Leeds Royal Infirmary

- This study has also been successfully extended and repeated in the Leeds Royal Infirmary, UK. Further validating the superiority of our Cardiovascular Biochip.

Colo Rectal Cancer Study Tallaght Hospital Dublin

- We are in collaboration with Tallaght Hospital and have executed a study of 55 patient samples into the clinical usefulness of the Colo Rectal cancer biochip.
- This collaboration is vital if we are to have credible products.

Bladder Cancer Collaboration Queen's University Belfast

- Development of a diagnostic algorithm for bladder cancer involving 2 Belfast hospitals
- Discovered new biomarkers and algorithm to diagnose bladder cancer superior to other tests commercially available.
- Large 1000 patient follow up study being planned

University of West of England Acute Myeloid Leukaemia

- University of West of England/Bristol Royal Infirmary/Royal Marsden Hospital and Frimley Park Hospital.
- Development of a bacterial Biosensor for Screening of chemotherapy Efficacy
- Cytarabine (Ara-c) response test

Penn State University

- Chemotherapy response test for ovarian cancer
- Response to cisplatin treatment identified by genetic profiling of tumour

University of Colorado

- Evidence placed in UCHSC
- Cytokine Studies:
 - Melanoma
 - Lung Cancer
 - Asthma

Results currently being analysed for publication.

Oesophageal Cancer Research St James Hospital Dublin

- Resumed research on Oesophageal cancer (April 2010)
- New focus of identifying responders and non-responders by looking for genetic differences in tumour samples.

John Radcliffe Hospital

- Peter Rothwell is analysis samples using the cerebral arrays and Investigator in stroke patients.

University of Vienna

- Marie Curie (EU) supported fully by Randox
- Alzheimer's biochip for diagnosis
- Developed Algorithm based on findings with high sensitivity for diagnosis of AD.

Our Aims

Development of diagnostic Alzheimer's disease array



indicating causative and therapeutic targets



A diagnostic tool for personalised medicine!

Université Henri Poincaré - Nancy

- Sophie Visivikis-Siest
- Biochip for risk of hypertension
- Analysed 650 samples using an 11 plexed SNP array developed in collaboration with Randox.

C.S.P.O Florence Italy

- Centre for Study and cancer prevention
- Study- Evaluation of a panel of molecular markers in the screening of CRC
- Propose to use as a triage test between FOBt and the endoscopic investigation.
- 30 samples completed/ 300 samples collected
- Florence screen 40K samples/year with FOBt

Summary

- It can be clearly seen that Randox has many collaborative partners both in Research/Teaching Hospital Universities in Ireland, Europe and the USA.
- If we did not have these collaborations we would be unable to establish the usefulness or effectiveness of our innovations and inventions.
- Furthermore in a number of cases the collaborations have led to innovations as well.
- So at Randox we are very aware of the importance of collaboration.

Summary

- Furthermore, we are continuously endeavouring to extend one to one collaborations to more extensive networks.
- This we are currently doing with our Cardiovascular work which is across a network of 11 organisations.

Thank You

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