

# 30 Years of Expertise and Innovation

Back in the autumn of 1978 the “Lucey” family partnership - “Equine and Ovine Blood Products” sold their very first bottle of fresh Defibrinated Horse Blood.

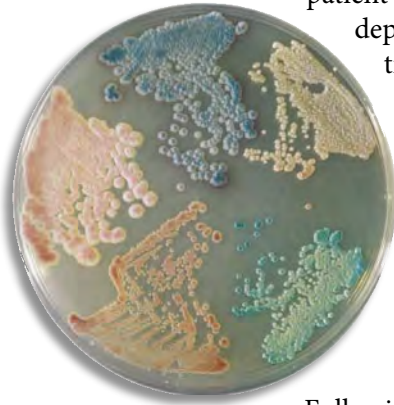
Thirty years on and the well established, credible “E&O” brand continues to grow and develop its market share as the preferred supplier of quality ready prepared media. Committed to both investment in manufacturing and the diversification of our product range, we are ready to meet the evolutionary changes that are happening within the microbiology sector today. I remember going to conferences and hearing the dreaded words Chromogenic Media, “it will never be used routinely, it is far too expensive and it will undermine our science”. Well it is here, commanding 10% of all clinical orders and these numbers will continue to rise as consultants demand faster patient diagnosis, finance departments squeeze tighter budgets and

insist on the use of less qualified technicians for the routine reading of patient samples. The food and environmental industry is also increasing its usage with improved ISO methods for the recognition of Listeria, Vibrio, Salmonella, *E.coli* O157 to name but a few.

New and exciting technology is continually challenging our “comfort zones”. Within the routine bacteriology laboratory further use of PCR is evident and a huge range of diagnostic kits are being constantly trialled to improve both the specificity and sensitivity of microbial identification.

E&O has and always will endeavour to look for products and services that will enhance our ability to deliver the ultimate microbiology package to our customers. We will continue with our commitment to seek out suppliers worldwide and enhance our strategic alliances within the microbiology sector, delivering quality, value and very personal service.

Virginia Lucey MD



*Spoilt for choice .....*

## COLOREX™ the Pioneer Range

Following extensive discussions, both technical and commercial, we have now formed a long term supplier alliance with Dr Alain Rambach and his French company CHROMagar. This will benefit our customer base for many years to come.

Dr Alain Rambach (the pioneer) joined the Pasteur Institute in Paris back in 1967 where he worked together with Professor Francois Jacob, a Nobel prize winner, in the field of genetics. His career centered around the “manipulation of genes” in bacterial genetics. In 1979, he invented, developed and patented a system for detecting *E.coli* bacteria using “chromogenic differentiation” culture media. This innovative breakthrough method of microbiological testing allowed France to lead the world in Chromogenic Technology. Dr Alain Rambach set up his own company, CHROMagar, and has since developed an extensive range of media utilising this innovative scientific method of chromogenic differentiation of pathogens.

E&O can now offer a full range of ready prepared chromogenic media to aid the quicker identification of specific microorganisms in routine microbiology laboratories. If you require samples or further information, please contact our customer service department or email: [info@eolabs.com](mailto:info@eolabs.com)

- Candida
- MRSA
- Staph aureus
- *E.coli* O157
- Listeria
- VRE
- Orientation
- StrepB
- Salmonella
- ECC
- Vibrio
- Pseudomonas

Ready prepared - Chromogenic Media

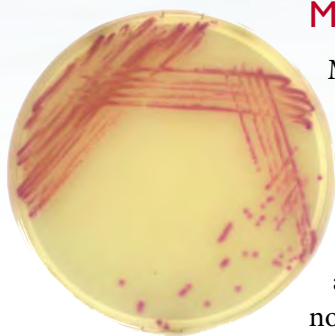


Dr Alain Rambach - Jonathan Horwood - Dr Douglas Cameron

Media Matters

E & O Laboratories Ltd

# Classical Chromogenics .....



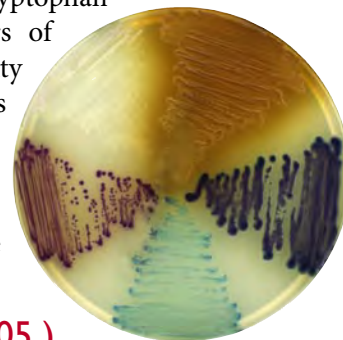
## MRSA ( PP3046 )

MRSA screening has increased the workload of the routine bacteriology laboratory ten fold and is a highly political issue within the NHS. 25% of all surgery related infections are caused by MRSA. E&O can now offer Dr Alain Rambach's Colorex™ MRSA Chromogenic Agar.

Numerous publications have demonstrated the medium has a sensitivity and specificity close to 100%. Following aerobic incubation at 37°C for 18-24 hours, mauve colonies indicate methicillin resistant *Staphylococcus aureus*, including low level resistant strains. Other organisms, if present will be indicated by blue or colourless colonies. If you would like sample plates to trial, please contact Customer Service or your Account Manager.

Urinary Tract Infections account for 35 - 40% of all hospital acquired infections in the UK. E&O's new chromogenic range of ready prepared media offers Primary™ UTI medium. It is a chromogenic medium designed to facilitate the swift detection and presumptive identification of the major bacterial species responsible for UTIs. The two chromogens present in the medium allow accurate detection after 18 -24 hours of aerobic incubation at 37°C - *Enterococcus spp.* as blue colonies and *E.coli.* as purple colonies. Phenylalanine and Tryptophan are also included as indicators of Tryptophan Deaminase activity producing brown colonies of *Proteus*, *Morganella* and *Providencia spp.*

If you would like to trial a sample please contact Customer Service or your Account Manager.



## UTI ( PP3005 )

## Irradiated Media for the Pharmaceutical, Industrial or Clinical Markets

Following the closure by 3M of the former "Fred Baker/ Biotrace International" facility in Runcorn at the turn of the year, E&O acquired all the equipment and residual stock. Most of the plate pouring machinery has now been relocated to our new extension of the clean room where the Engineering and Quality Assurance department have been very busy completing the rigorous validation processes. These new specialised pouring lines will not only help E&O to grow the business but also give us the opportunity to further automate the pouring of both large 140mm dishes and the 55mm contact plates.

### cGMP up-date

The United States Pharmacopeia (USP) convention has proposed changes in relation to the "Microbiological Examination of Non-sterile products". These changes become effective in May 2009 and harmonise the United States Pharmacopeia with the European and Japanese Pharmacopeia. In light of these proposals, we have reviewed and revised our Pharmaceutical and Cosmetics prepared media range to ensure the media meets all regulatory expectations.

Prepared poured plate media is provided in 55mm contact plates, as well as 90mm and 140mm petri dishes. The plates are poured and triple wrapped in cellulose membrane film within our dedicated ISO 14644 -1 class 7 cleanrooms and terminally sterilised by Gamma irradiation (8 KGy - 15 KGy). Each lot is independently sampled and analysed in compliance with ISO 11133-1:2000 and ISO 11133-

2:2003 via UKAS accredited test methods to ensure only media of the desired quality is released for sale. Our range also includes bottled broth media and buffers. These are provided in borosilicate glass tubes and bottles and are terminally sterilised by steam sterilisation at 121°C for 15 minutes or by membrane filtration techniques.

To ensure continuous improvement in the quality and consistency of the media produced at E&O, the Quality Management System has been revised to incorporate the requirements of cGMP as defined within the EU Guide to Good Manufacturing Practice 2007. E&O has operated within an ISO 9001 certified Management System for more than 10 years and has now incorporated the relevant aspects of cGMP to complement and enhance the system and provide assurance in relation to critical activities such as validation and calibration, while ensuring full traceability of raw materials, operating conditions, equipment and personnel.



Double and Triple wrapped Irradiated Media



# Congratulations to the Diagnostics Team

Group Up-Date

E&O Diagnostics Ltd, the Group's independent analytical laboratory, are very proud to announce the extension of their current UKAS ISO/IEC 17025:2005 accreditation to incorporate physical and microbiological test methods for the analysis of pre-prepared culture media.

Each batch of media produced by E&O Laboratories Ltd is sampled and then independently analysed in compliance with ISO 11133-1:2000 and ISO 11133-2:2003. The methodology has been developed to ensure every batch of media is challenged both physically and microbiologically to assure consistent quality throughout.

## Sterility Tests

All batches are sampled using a double sampling plan to provide representative samples from throughout the batch. The samples are incubated at 37° C and 20° C for up to 8 days to ensure any low level contamination can be detected.

## Microbial Performance

The microbiological performance of each batch of media is assessed using defined suspensions of 1st generation national culture collection organisms. The batches are inoculated to provide quantitative and qualitative analysis of the batch productivity and selectivity.

## Physical Testing

The Moisture, pH, Colour, Fill Volume, and Appearance are also assessed to ensure only consistent products are released to the market place.

## Specifications

Specifications are pre-defined for all media types. These exceed the expectations of the standard ISO 11133-2:2003.

## Calibration

All equipment is independently calibrated and verified on a daily basis to ensure the validity of ongoing analysis.

## Traceability

E&O Diagnostics Ltd has full traceability of all the equipment, analysts and materials used for all analyses.

## Validation

All test methods and associated equipment have been validated and are continually assessed on a monthly basis.



These rigorous testing methods ensure our customers receive consistently high quality media. If you require further details please contact our Product Specialist - Dr. Douglas Cameron Ph.D e-mail: douglas.cameron@eolabs.com

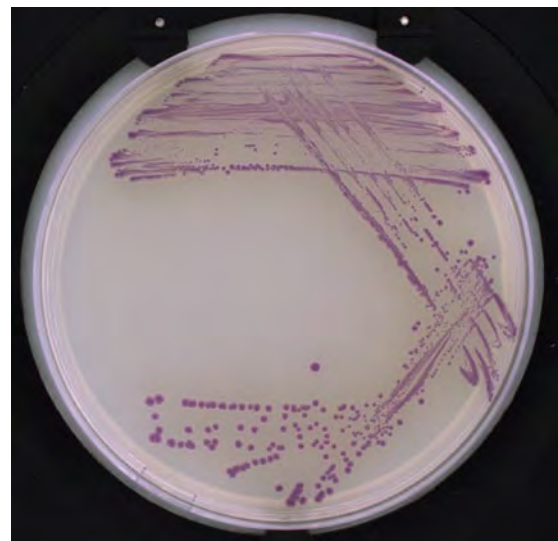
## Exceeding customer expectations - E&O leads the field!

### On-line digital quality control images

During the manufacturing process, product samples are taken from the start, middle and end of all the batches. Once these samples have passed all the physical testing parameters they are then submitted for sterility and performance testing. These routine plate samples are inoculated and incubated for the required time period, they are then analysed by our microbiologists and the results entered into the laboratory LIMS system.

All the productivity samples from the middle of the batches are then taken for digital imaging using the modern and revolutionary Kiestra "ReadA" technology. These images are then filed within the Kiestra database. They can then be retrieved using date, batch, bacterial or operator fields. These high quality images are used within our product development department for trend analysis on both product quality and shelf-life. These images have subsequently been used as an in-house training tool, technicians can compare techniques and learn about microbial characteristics and now we can offer our customers the unique and novel service of:

Digital Batch Quality Control Images - Real Time



*E.coli* O157 - 18 hour incubation - PP3040  
Colorex™ Chromogenic O157 Agar

Committed to quality and service

# **Integrated Stock Management System**

E&O was the first media manufacturing company to introduce the concept of a “microbiology driven” integrated stock management system. Five years on and the software package has grown and developed into a “must have” laboratory tool! As CPA accreditation demands full traceability and procurement departments require up-to-date stock values no laboratory can afford not to have one. We have worked together with our customers to develop a simple to use package that is well supported and excellent value for money.

If you are short staffed and feel vulnerable about your next CPA audit, then give us a ring and ask for Craig Livingstone in IT / Customer support, who can organise a demonstration.

### *Customer testimonials:*

*“We at the R.A.E.I., Wigan have been using E&O Laboratories’ Stock Control system since 2004. It has proved to be an invaluable tool, providing us with a means of easily managing all the materials used in providing our service.”*

### **Thinking out of the BOX!**

Maintaining our Environmental Policy of “returnable packaging” whilst trying to off-set the ever increasing cost of fuel has been top of our agenda this summer.

E&O decided to change our delivery courier, combat dreaded surcharges and join forces with the like minded environmentally responsible company :

#### **DPD Express Parcels (Parceline/Interlink)**

DPD’s transport hubs are set up to handle large volumes of returnable “totes” or blue boxes as we call them. This new service delivers and collects the blue boxes at the same time using their new “**Reverseit service**”. We also supply large sacks for all the trays so these can come back directly to our warehouse.

The cost saving and reliability of collections have proved to be a winner! Not to mention we will never run short of boxes during seasonal holiday breaks. Well done everyone for the managing the change.

**Good news for our North of England customers** - due to increased business we will now be delivering three days a week directly from the factory . E&O’s commitment to service these accounts with our personal - “straight to your cold-room” principle has proved to be very successful.

We will always endeavour to meet your delivery requirements and should you require further information on our different services please contact our Customer Service department and ask to speak to Ann Turner.

*“The data recorded on the system means that we have all the evidence on file to help us comply with Standard D3 “Management of Materials” for the medical laboratory. The two best advantages we find of the system is the short length of time it now takes to print off an annual report of the current stock position for our finance department. Also the order recommendations that it can give you in order to keep your stock replenished in a timely fashion.”*

*John Mace - Chief BMS, Wigan Hospital*

*“ ISMS offers a comprehensive itemisation of all products currently in stock. It proved invaluable during our recent CPA inspection as I was able to identify which products were used on a given patient sample. This is vital for complete trace ability.”*

*Nicola Hewitt - Queen Mary’s Hospital, Sidcup*

## Visit Our Stand

### Exhibition Dates

Microbe - Hilton Hotel - Sheffield  
26th - 28th September 2008 - Stand 11

Medica - Düsseldorf  
19th - 22nd November 2008 Hall 1 Stand E18

IBMS - Birmingham  
28th - 30 September 2009 - Stand 808



### Exhibition Team

Kevin Carlin, Douglas Cameron, Virginia Lucey,  
Sarah Lowdon and Svend T’Anson



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