

Aber Instruments Limited

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Technical Director

Where is Aber Instruments?



ABER
TRUSTED TECHNOLOGY

Storm Imogen



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About Aber

- Aber was founded in 1988 - spin out from Aberystwyth University
- Aber is employee owned (just like John Lewis)
- Aber has 30 employees – Split equally: Production, R&D, everything else
- Aber develops its own products, ensuring very high quality designs
- Aber is a manufacturing business that exports 95% of its products to over 100 countries
- Aber sells through a worldwide distribution network, and as a direct OEM

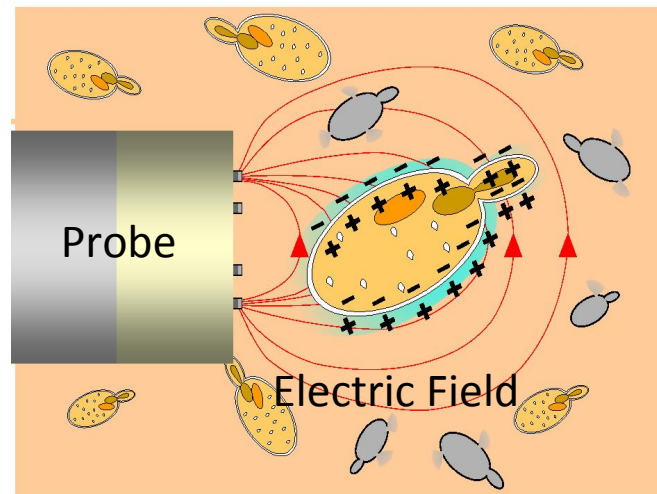
Aber the Market Leader

- Aber measures Viable Biomass using Capacitance
 - Dielectric Spectroscopy
- Aber held the original patents, developing the technology and the marketplaces from scratch
- Every major brewery in World has an Aber product
 - It is the industry standard
- Over 60% of our business is in the biotech sector
 - Including hundreds of Aber systems in GMP manufacturing sites
- Our regular customers are the likes of SAB Miller, AB Imbev, Heineken, Bayer, Biogen Idec, Genzyme, GSK, Pfizer, Novatis...



Core Technology

- In a nutshell...
 - Put a probe with four electrodes (Pt) into a solution of cells
 - Project a radio frequency electric field into the solution to polarise the cells with viable membranes
 - Use complex electronics to measure the very tiny phase angles between the signals, and convert this into a capacitance/permittivity measurement
- Derive the Viable Cell Density and other properties of your cell solution



Valuable Signals

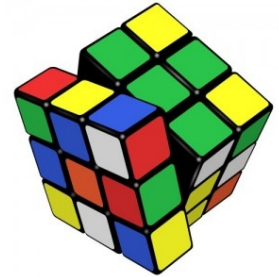
- Viable Cell Density is used for controlling cellular processes:
- Pitching yeast into a fermentation
- Feeding regimes for cell cultures
- Harvesting inclusion bodies
- Adding micro carriers to stem cell cultures
- Fingerprinting for validation purposes



Developing Aber

- Aber has recently partnered with Sartorius Stedium Biotech in order to provide Single Use solutions to the biotech marketplace
- Launched a new image analysis technology into the brewing industry
- This summer we will complete a FP7 project, successfully measuring Stem Cells for patient specific treatments
- Aber's new strategic plan is to expand into the biomedical sector
 - We see crossover between our expertise and the biomedical industry
 - We are looking for collaborative partners
 - We are looking for problems to solve

Solving Problems



- Aber is a company that is good at solving problems
- Ultimately, we do the physics/electronics/engineering for biologists
- Now we want to solve problems within the biomedical industry
- If you have ideas, problems or would just like to work with us, contact me:

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