

# Curriculum Vitae

**Surname:** Edwards-Jones

**Forenames:** Valerie

**Degree etc.** (subject, class, university, and date):

Biological Sciences	PhD	Salford	1998
Medical Microbiology	F.I.B.M.S	Institute of Biomedical Sciences	1978

**Posts held (with dates):**

Clinical Director, MelBec Microbiology Ltd	2014-present
Independent Consultant, Essential Microbiology Ltd	2008-present
Visiting Professor, Institute of Skin Integrity and Infection Prevention, University of Huddersfield	2016-present
Emeritus Professor of Medical Microbiology	2014-present (MMU)
Director of Research / Head of Research	2010-2014 (MMU)
Assistant Research Director, MMU	2004-2010 (MMU)
Professor of Medical Microbiology	2007-2014 (MMU)
Reader in Medical Microbiology	2004-2007 (MMU)
Senior Lecturer, Medical Microbiology	1991-2004 (MMU)
Part-time lecturer	1984-1991(MMU)
Head of Department-Microbiology	1986-1991 NHS (Bury)
Senior Biomedical Scientist (Microbiology)	1978-1986 NHS (NMGH)
Trainee Biomedical Scientist	1972-1978 NHS (Durham)

## Professional Responsibilities

Working Group (Infection prevention in Burns Injuries)	2014-present
Committee Member, Society of Applied Microbiology	2014-2018
Scientific Advisor to the Institute of Biomedical Sciences	1998-2014
Deputy Chief Examiner, Microbiology, Institute of Biomedical Sciences	2003-2010
Fellow of the Institute of Biomedical Sciences	1978-2018
Hon Treasurer, Society of Applied Microbiology	2004-2009
Chairman of the Institute of Biomedical Sciences	
Bacteriology Discussion Group, Manchester	2003-2014
Expert member of North Manchester research Ethics Committee	2005-2010

## RESEARCH

I have written numerous refereed publications, a frequent speaker at National and International Conferences, supervised 19 post graduate students to completion and generated over £1,000,000 of funding, either as principal or co-investigator.

I was one of the original research team led by the late Professor Derek Gordon who developed microbial identification using MALDI-TOF-MS. This original work was published in Nature Biotechnology and has been cited over 400 times as the first publication in this field. The original research has now led to the further development of this technique and the commercialisation of this novel identification

methodology has revolutionised diagnostic microbiology and resulted in billions of pounds of income for the commercial companies.

In collaboration with the PHE in Manchester I helped to develop some of the molecular diagnostics using real time PCR for meningitis and other key pathogens. These new molecular methods helped to improve the routine diagnosis and epidemiological studies of these medically important microorganisms. The overall aim for all projects was to improve detection time, enabling the administration of accurate treatment and prophylaxis for infectious disease, ultimately improving patient care.

My most notable research has involved wound microbiology and the impact of a changing environment on the microorganisms present in wounds. Recent work has focussed on antimicrobial dressings, wound biofilms and alternative antimicrobial agents such as essential oils. Here I work on both the development and testing of final products, which I have undertaken for a number of medical companies.

### **CURRENT RESPONSIBILITIES**

MelBec Microbiology Ltd was established as an Independent Microbiology testing company with three Directors, myself as Clinical Director. It is my responsibility to promote the company and further develop the strategic growth in medical and diagnostic microbiology and cover clinical aspects of personal care. The company is UKAS accredited and I undertake a number of contract research projects with a number of companies in this facility. [www.melbecmicrobiologyltd.co.uk](http://www.melbecmicrobiologyltd.co.uk)

### **PREVIOUS EXPERIENCE AT SENIOR MANAGEMENT LEVEL**

As Director of Research, I worked strategically across the University to ensure that all research was supported and expanded as set out in the Intuition Plan, *The 2020 vision*. I was responsible for a £6.5m budget and administration of all aspects of research funding and post graduate provision. I was also responsible for reporting National statistical returns. I reported directly to the Deputy Vice Chancellor and Board of Governors. I also worked closely with the members of Directorate, Faculties, Departments and Schools, as well as other academic and support staff in the wider research community of the University and external bodies, such as Funding Councils, government departments, regional, national and international organisations.

Prior to joining the University, I worked in the NHS for 19 years the latter six years in a senior management role. I took up the position of Head of Department for a Clinical Microbiology Laboratory in 1984 and was responsible for the diagnosis of infectious disease in a population catchment area of over 500,000 people. This involved processing over 80,000 specimens per annum. I was responsible for the management, operations and training requirements of the laboratory. This involved planning the most efficient use of space, negotiating and ordering capital equipment, building business cases, negotiating contracts, ensuring the laboratory operated to

health and safety standards as well as those required for accreditation. The laboratory was operational 24 hours a day, 365 days per annum and it included management of an 'out of hours' service, weekend and evening cover. I also ensured cover for other Trusts for certain tests that were only carried out in my laboratory

## TEACHING AND EXAMINING EXPERIENCE

I have been actively involved in the development, validation, administration and teaching on a variety of courses, including a **Doctorate in Health and PhD by Practice**.

<b>Course and year tutorship</b>	1991-1994 BTEC (HNC) Course Leader 1994-1998 IBMS Primary Course Leader 1995-2004 BSc (Hons) Biomedical Sciences (2 <sup>nd</sup> year tutor)
<b>Unit Co-ordinator And teaching experience</b>	Medical Microbiology A / B (MSc) Disorder study (MSc) Analytical Science (MSc) – mass spectrometry Medical Microbiology (BSc) Pathology Science (BSc Level II) Epidemiology (Primary Course) Genetics (BSc level 1) Immunology (BSc level 1) Human Disease processes (BSc level 3)
<b>CPD Short Courses' Organised</b>	DNA in Biomedical Sciences' 1993 3 day theoretical course 'Investigation of the Infertile Couple' March 1994 'Treatment of the Infertile Couple' Sept 1994 (Two, one week courses organised with the British Andrology Society.)
<b>Course Validation/ Review</b>	BSc Dental technology, MMU  MSc Biomedical Sciences, UWIC Doctorate in Health , MMU M(Res)Education and Society, MMU (Chair) MSc Microbiology, Northumbria
<b>Course External Examiner</b>	MSc Biomedical Science, Bradford University (2005- 2009) Biomedical Science Foundation Degree, Aston University (2008-2014) MSc Biotechnology , Northumbria University (2008- 2014)

**Post Graduate External Examiner**  
**Post Graduate Internal Examiner**

1 DSc, **15** PhD's, 3MSc. 1MPhil  
10 PhD's, 4MSc's, 1MPhil

## **PUBLIC ENGAGEMENT**

I am actively engaged in raising awareness of infectious disease to the general public through television and media. I am a Medical Microbiology expert for the Science Media Centre and deliver responses to a variety of newspapers on media coverage of infectious disease in National newspapers, local and national radio. I have featured in a number of press releases (Local and National) on research into essential oils, encapsulation technology and rapid diagnosis of microorganisms using MALDI-TOF-MS

As a consultant microbiologist I featured in all episodes of 'Embarrassing illnesses, Embarrassing Bodies' and still continue to be involved with other associated programmes. I have given responses to BBC News on public health issues associated with tuberculosis and retention of patients who do not comply with treatment.

I have delivered a number of lectures to local schools and colleges in the North West on behalf of MMU. Topics include: Sexual Health, Infectious Diseases and MRSA-the superbug

## **POST GRADUATE SUPERVISORY EXPERIENCE**

**Since completion of my own PhD in 1998 I have successfully supervised 19 post-graduate students,**

<b>MPhil</b>	Protozoal infections in AIDS patients (1999) <b>Thawka Kyaw</b>
<b>PhD</b>	Characterisation of methicillin resistant <i>S. aureus</i> (2000) <b>Jill Walker</b>
<b>PhD</b>	Toxic Shock Syndrome in UK burn centres (2002) <b>Vahideh Khojashteh</b>
<b>PhD</b>	Non-culture detection of microorganisms from culture negative case of meningitis (2003) <b>Caroline Corless</b>
<b>PhD</b>	The effect of dressings on exotoxin production by <i>Staphylococcus aureus</i> (2004) <b>Rachael Buck</b>
<b>MSc</b>	Gancyclovir resistance in Cytomegalovirus (2005) <b>John Marsh</b>
<b>PhD</b>	Intact Cell MALDI-TOF-MS for the identification of medically important bacteria (2005) <b>Carrina Keys</b>
<b>PhD</b>	Multi-locus sequence typing of <i>N. meningitidis</i> and <i>S. pneumoniae</i> (2006) <b>Andrew Birtles</b>
<b>MSc</b>	The antimicrobial effect of essential oils (2006) (industrial funded) <b>Emmanuel Adukwu</b>
<b>PhD</b>	Proteome analysis of staphylococci using mass spectrometry (2008) <b>Ingrid Ines</b>
<b>MSc</b>	Epidemiology of <i>Campylobacter</i> sp in the North West (2008) <b>Margaret Mathews</b>

<b>MSc</b>	Epidemiology of fatal and non-fatal cases of group B Meningococci (2009) <b>Tony Carr</b>
<b>PhD</b>	Molecular Epidemiology of <i>Pseudomonas aeruginosa</i> (2011) <b>Sami-Al-Baba</b>
<b>PhD</b>	Molecular characterisation of <i>Neisseria meningitidis</i> (2011) <b>Lynne Newbold</b>
<b>PhD</b>	Epidemiology and Treatment of MRSA in Jeddah (2011) <b>Rania Sultan</b>
<b>PhD</b>	Nano-layered inorganic-organic hybrid materials for the controlled delivery of antimicrobials to protect against healthcare associated infections. (2012) <b>Malcolm Allan Kinninmonth</b>
<b>PhD</b>	Conventional and molecular approaches for bacterial identification and quantification in chronic wounds (2013) <b>Monika Stuczen</b>
<b>MSc</b>	The effect of silicone sheeting on the production of exoproteins by microorganisms (2014) <b>Jade Yuk Mai Chan</b>
<b>PhD</b>	Mesoporous silica nanoparticle incorporation of essential oils onto synthetic textiles for tailored antimicrobial activity. (2016) <b>John Lillie</b>

#### RESEARCH AND THIRD STREAM FUNDING OBTAINED (APPROX £1,000,000)

Source of funding	Amount £	PI	CI	Project	Year
Smith and Nephew Healthcare	1000	Y		the effect of topical antimicrobial agents on TSST-1 production.	1996
Lab M	5000	Y		identification of bacteria using MALDI-TOF	1997
J&J / University studentship	31,500	Y		the effect of dressings on growth and toxins	1998
Withington Burns Charity	7000	Y		rapid typing of MRSA	1999
Quesnel Louis	2000	Y		Investigation of product X	1999
Aztrazenaca	20,000		Y	investigating the drug 'Zoladex'	1999
Public Health Laboratory Service (PHLS)	45,000		Y	the development of multi-locus sequence typing	1999
PHLS	60,000		Y	Proteome analysis of staphylococci	2001
PHLS	9600		Y	MALDI-TOF-MS for identification of the Genus <i>Neisseria</i> /sequencing of oligonucleotides	2001
PHLS	16500		Y	Consumables for 2 part-time students	2002
Micap PLC	8000	Y		Antimicrobial action of essential oils	2003
Manchester Victoria	10,000		Y	evaluating the potential of MALDI-TOF-MS in the rapid detection of Vancomycin resistant	2003

University				staphylococci	
Society for Applied Microbio	2100	Y		Antimicrobial effects of garlic	2004
<b>Source of funding</b>	<b>Amount £</b>	<b>PI</b>	<b>CI</b>	<b>Project</b>	<b>Year</b>
Hospital Infection Society	5000	Y		Effect of essential oils on MRSA	2004
Central Manchester Trust	15,000		Y	evaluating the potential of MALDI-TOF-MS in identification of MRSA from clinical specimens	2004
NEAT Emerging Technology grant (NHS)	30,000		Y	Comparison of SELDI-TOF and MALDI-TOF for identification of MRSA from clinical specimens	2004
DTI	225,000		Y	Developing urinary catheters	2004
SFAM	5000	Y		Overseas Development Award	2005
Scent Technologies	16000	Y		Antimicrobial effect of essential oil vapours	2005
Smith and Nephew	16,500	Y		The effect of silver dressings studentship	2006
Diabetes UK grant	98,000		Y	Eradication of MRSA from diabetic leg ulcers using maggots, biogun and silver dressings	2007
Scent Technologies	30,000	Y		Antimicrobial effect of essential oil vapours	2008
EU grant Wound Monitor	50000		Y	Detection of bacteria using mass spectrometry	2008
EPSRC case award	60,000		Y	essential oils impregnated zeolites	2008
Smith and Nephew	6500	Y		Antimicrobial effect of Allevyn Ag dressing	2008
EPSRC	400,000		Y	Bio-Info-Nano cross disciplinary grant	2009
SFAM	2100	y		Student into work grant	2009
Willaena sciences	1000	Y		Clostridium difficile studies	2009
Microbiological Solutions	1200	y		Effectiveness of mouthwash	2009
Smith and Nephew	6500	y		Evaluation of silver dressings	2009
Covidien	1000	y		Microbiology Training course	2009
Medical Wire	7000	y		PhD student fees (external sponsorship)	2009
pfizer	50000	y		Rapid ID of MRSA	2010
Smith and Nephew	7000	Y		Evaluation of silver dressings	2011
EU framework 7	30000		y	Novel treatment of <i>C. difficile</i>	2011
Aspen	5000	Y		Evaluation of Chitosan	2012

Beier	10000	y	Evaluation of Drawtex	2012
CiCa BioMedical	10000	y	New silver dressings	2013
SFAM	2500	y	Topical antimicrobial agents	2014

## Publications;

**Edwards-Jones, V.,** & Foster, H.A. 1994 The effect of topical antimicrobial agents on the production of toxic shock syndrome toxin-1 *J Med Micro*; 41; 505-509.

Childs, C., **Edwards-Jones, V.,** Heathcote, D.M., Dawson, M.& Davenport, P. 1994. Patterns of *Staphylococcus aureus* colonisation, toxin production, immunity and illness in burned children *Burns*; 20; 514-521.

**Edwards-Jones, V.,** Childs, C. & Foster, H.A. 1996 A comparison of phenotypic properties of *Staphylococcus aureus* isolated from burned children and other patient groups. *Burns*; 22; 384-389.

Claydon, M.A., Davey, S.N., **Edwards-Jones, V,** & Gordon, D.B. 1996. The rapid identification of intact micro-organisms using mass spectrometry. *Nature Biotech*; 14; 1584-1586

**Edwards-Jones, V.,** & Shawcross, S. 1997 Toxic shock syndrome in the burned patient *Brit J of Biomed Sci*; 54; 110-117.

Kyaw, T., Curry, A., **Edwards-Jones, V.,** Craske, J. & Mandal, B.K. 1997 The prevalence of *Enterocytozoon bieneusi* in acquired immunodeficiency syndrome (AIDS) patients from the north west of England: 1992-1995. *Brit J of Biomed Sci*; 54; 186-191.

Taylor, K., **Edwards-Jones,V,** & Armitage, M 1998 Metronidazole sensitivity testing of *Helicobacter pylori*; importance of media *Brit J of Biomed Sci*; 55; 118-122.

**Edwards-Jones, V,** & Foster, H.A 1998 The effect of aeration rate and silver sulphadiazine on TSST-1 production *in European Conference on Toxic Shock Syndrome* J Arbuthnott and B Furman eds. *International Congress and Symposium series 229*; RSM press London. p 134-136.

Shawcross, S., **Edwards-Jones, V.** & Foster, H.A. 1998 The effect of silver sulphadiazine on *tst* transposition in *Staphylococcus aureus* *in European Conference on Toxic Shock Syndrome* J Arbuthnott and B Furman eds. *International Congress and Symposium series 229*; RSM press London. p131-133.

Khojashteh, V., Foster, H.A., Rogan, M & **Edwards-Jones, V** 1998 the development of a competitive agglutination inhibition assay (CAIA) for TSST-1 antibody *in European Conference on Toxic Shock Syndrome* J Arbuthnott and B Furman eds. *International Congress and Symposium series 229*; RSM press London. p 69-71.

Walker, J., Borrow. R., **Edwards-Jones, V.,** et al 1998 Epidemiological Characterisation of MRSA isolated from the NW of England by protein A (*spa*) and coagulase (*coa*) gene polymorphisms *Epidem Infect.* **121**; 507-514

Childs, C., Dawson, M.M & **Edwards-Jones, V.** 1999 Toxic shock syndrome toxin-1 antibodies in burned children *Burns* 25, 473-476.

**Edwards-Jones, V.**, Claydon, M.A., Evason, D.J., Walker, J., Fox, A., & Gordon, D.B. 2000 Rapid discrimination between methicillin sensitive and methicillin resistant *Staphylococcus aureus* using ICMS *J Med Micro*, 49, 345-351.

**Edwards-Jones, V.**, Dawson, M.M., & Childs, C 2000 A survey into TSS in UK Burn Units *Burns* 26, 323-333

Corless, C., Borrow, C., Guiver, M., **Edwards-Jones, V.**, Kaczmarshi, E.B. & Fox, A.J 2000 Taq DNA Polymerase Contamination and Sensitivity Issues with a 'real time' Universal 16S rRNA PCR *J Clin Micro* 38, 1747-52

Corless, C., Borrow, C., Guiver, M., **Edwards-Jones, V.**, Kaczmarshi, E.B. & Fox, A.J 2001 Multiplex PCR for detection of *N. meningitidis*, *S. pneumoniae* and *H. influenzae* using the 'Taqman' real time PCR *J Clin Micro* 39; 1553-1558

Walker, J., Fox, AJ, **Edwards-Jones, V** and Gordon, DB 2002 ICMS used to type MRSA: media effects and inter-laboratory study *J Microbiological Methods* 48, 117-126

**Edwards-Jones, V** and Foster, H.A 2002 The effects of silver sulphadiazine on the production of exoproteins by *S. aureus* *J Med Micro* 51(1):50-5

**Edwards-Jones, V** and Greenwood, J 2002 Whats new in burns microbiology? Laing Essay *Burns*: 29; 15-24.

Corless, C., Borrow, C., Guiver, M., **Edwards-Jones, V.**, Kaczmarshi, E.B. & Fox, A.J 2002 Development and evaluation of a real time RT-PCR for the detection of Enterovirus and parechovirus RNA in the CSF and Throat Swab samples *J Med Virol* 67: 555-562

Khojashteh, V., Foster, H.A., Rogan, M & **Edwards-Jones, V** 2003 Detection of antibodies to *Staphylococcus aureus* Toxic Shock Syndrome Toxin-1 using a competitive agglutination inhibition assay *Letters in Applied Microbiology*. 36(6):372-6.

**Edwards-Jones V** 2003 'MALDI-TOF-MS a new tool in diagnostic microbiology'. SFAM 'Microbiology' publication

KA Jackson, AJ Fox and **V Edwards-Jones** (2003). Determination and Structural Examination of Potential Biomarkers for Methicillin-resistant *Staphylococcus aureus*. *NATO science series life sciences* Vol 352 p: 149-154 (IOS Press 2003)

**Edwards-Jones, V.**, Buck, R., Shawcross, S.G ., Dawson, M.M., & Dunn, K 2004 The effect of essential oils on methicillin resistant *Staphylococcus aureus* using a dressing model *Burns*; 30(8):772-7

Birtles A, Virgincar N, Sheppard CL, Walker RA, Johnson AP, Warner M, **Edwards-Jones V**, George RC. 2004 Antimicrobial resistance of invasive *Streptococcus pneumoniae* isolates in a British district general hospital: the international connection. *J Med Microbiol.* 53:1241-6.



- Dunn K, **Edwards-Jones V**. 2004 The role of Acticoat with nanocrystalline [silver](#) in the management of burns. *Burns*. 30 Suppl 1:S1-9
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- Birtles A, Hardy K, Gray SJ, Handford S, Kaczmarek EB, **Edwards-Jones V**, Fox AJ. 2005 Multilocus sequence typing of *Neisseria meningitidis* directly from clinical samples and application of the method to the investigation of meningococcal disease case clusters. *J Clin Microbiol*. 43; 6007-14.
- Davies S, Edwards-Jones V and Dowsett D 2005 Management of wound infections *J Community Nursing*
- Edwards-Jones V (2006) The antimicrobial and barrier effects of silver dressings against MRSA *J Wound Care* 15: 285-290
- Edwards-Jones V** (2006) Antimicrobial and barrier effects of silver against methicillin-resistant *Staphylococcus aureus*. *J Wound Care*. Oct ; 15 (9); 418-420
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- Edwards-Jones V** (2007) the use of silver dressings in infected wounds. SFAM 'Microbiology' publication
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- Edwards-Jones V** (2008) Alternate clinical antimicrobial therapies SFAM Microbiology publication
- Doran AL, Morden WE, Dunn K, **Edwards-Jones V**. Vapour-phase activities of essential oils against antibiotic sensitive and resistant bacteria including MRSA. *Lett Appl Microbiol*. 2009 Apr;48(4):387-92.
- Bowling FL, Stickings DS, **Edwards-Jones V**, Armstrong DG, Boulton AJ. (2009) Hydrodebridement of wounds: effectiveness in reducing wound bacterial contamination and potential for air bacterial contamination. *J Foot Ankle Res*. 2009 May 8;2:13.
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- Edwards-Jones V. (2009)** The benefits of silver in hygiene, personal care and healthcare. *Lett Appl Microbiol*. Aug;49(2):147-52
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White, R., Cooper, R., & **Edwards-Jones, V.** (2012). What is the role of biofilms in wound healing?. *Wounds UK*, 8(2), 20-24.

**Edwards-Jones, V.**, & Leahy-Gilmartin, A. (2013). Gastrostomy site infections: Dealing with a common problem. *British Journal of Community Nursing*, 18(5 SUPPL.5), S8-S13.

Kinninmonth, M. A., Liauw, C. M., Verran, J., Taylor, R., **Edwards-Jones, V.**, Shaw, D., Webb, M. (2013). Investigation into the suitability of layered silicates as adsorption media for essential oils using FTIR and GC-MS. *Applied Clay Science*, 83-84, 415-425.

M. Kinninmonth, CM. Liauw, J. Verran, RL. Taylor, **V. Edwards-Jones, et al.** (2014). Nano-Layered Inorganic-Organic Hybrid Materials for the Controlled Delivery of Antimicrobials. *Macromolecular Symposia*. 338(1), pp.36-44.

**Edwards-Jones V**, Vishnyakov V, Spruce P.(2014) Laboratory evaluation of Drawtex Hydroconductive dressing with LevaFiber technology. *J Wound Care*. Mar;23(3):118, 120, 122-3

**V Edwards-Jones**, M Flanagan, R Wolcott - Technological advancements in the fight against antimicrobial resistance. *Wounds Int*, 2015 - woundsinternational.com

Rashid Masood, Mohsen Miraftab, Tanveer Hussain and **Valerie Edward-Jones** Development of slow release silver-containing biomaterial for wound care application 2015, Vol. 44(5) 699–70 *J Industrial textiles*

Adukwu EC, Bowles M, **Edwards-Jones V**, Bone H.(2016) Antimicrobial activity, cytotoxicity and chemical analysis of lemongrass essential oil (*Cymbopogon flexuosus*) and pure citral. *Appl Microbiol Biotechnol*. Nov;100(22):9619-9627.

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**Edwards-Jones V** Antimicrobial resistance- challenges for the 21<sup>st</sup> century. *Wounds* 2018 14; 46-52.

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**Edwards-Jones V**, Atkin L, Morris L, & Guttermsen K 2018 Biofilm based wound care; how to debride and manage chronic wounds. *Wounds* 14; 4;10-15.

**Edwards-Jones V** Microbiology and malodourous wounds. *Wounds* 2018;14; 4; 72-75.

## BOOK CHAPTERS

**Edwards-Jones, V. (2012).** Nanocrystalline silver: Use in wound care. *Current Advances in the Medical Application of Nanotechnology*, 25-31.

**Edwards-Jones V** Treating infection with essential oils in Aromatherapy vs MRSA: Essential Oils to combat the superbug (2012) (ed) Maggie Tisserand; The Clarity Press, Atlanta, USA.

**Edwards-Jones V** (2012) Antimicrobial dressings p 514-520. in Principles and Practice of Disinfection, Preservation and Sterilisation (2013) 5<sup>th</sup> edition, (eds) Fraise AP, Maillard JY and Sattar SA; Wiley Blackwell, Chichester, Sussex.

**Edwards-Jones V** and Flanagan M. Wound infection p87-99. In Wound Healing and Skin Integrity: principles and practice (2013) (ed) Madeline Flanagan ; Wiley, Chichester, Sussex

**Edwards-Jones V** (2013) Alternative antimicrobial therapies in Fighting Multi-drug resistance with herbal extracts, essential oils and their components eds *Mahendra Rai and* Kateryna Ron Pubs; Elsevier 1-7

**Edwards-Jones V (2016)** Introduction to Microbiology p 1-11 Essential Microbiology in Wound Care (2016) Edwards-Jones V (editor) Oxford University Press ISBN-13:9780198716006

**Edwards-Jones (2016) Microbiology – the basics p 11-33** Essential Microbiology in Wound Care (2016) Edwards-Jones V (editor) Oxford University Press ISBN-13:9780198716006

**Edwards-Jones V (2016) Wound Pathogens p 67-81** Essential Microbiology in Wound Care (2016) Edwards-Jones V (editor) Oxford University Press ISBN-13:9780198716006

**Edwards-Jones V (2016) Future of Wound Care p 165-173.** Essential Microbiology in Wound Care (2016) Edwards-Jones V (editor) Oxford University Press ISBN-13:9780198716006

**Edwards-Jones V** (2017) Genital Infections and Infertility (awaiting publication)

**Edwards-Jones V** (2017) Microbiology for Veterinary Nurses (awaiting publication)

## Edited books:

Essential Microbiology in Wound Care (2016) Edwards-Jones V (editor) Oxford University Press ISBN-13:9780198716006

**In addition Over 250 Posters, oral presentations and Invited talks**

REFERENCES AVAILABLE ON REQUEST