**INNOVATION VOUCHERS INITIATIVE DIRECTORY OF SKILLS AND EXPERTISE**

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| **Knowledge Provider** | Ulster University |
| **Address** | Shore Road, Newtownabbey, Co. Antrim, BT37 0QB |
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| **Department/Unit** | **Specific services offered** | **Contact****Name** | **Address****(If Different from****Above)** | **Telephone** | **E-Mail address** |
| Arts, Humanities, Design, Built environment | • 2D and 3D digital animation• 2D and 3D Games design• 3D computer modelling & visualisation• Automotive styling• Character design & development• Film - Documentary (development, direction & production)• Film - shorts (writing, directing &production)• Graphic Design and branding• History• Historical statistics• Human Security• Illustration• Interactive media• International State building / repairingfailed states• Irish Cultural heritage• IT - Mac OSX & OSX Server & Linux• Journalism | Kerry Patterson (as above) |  |  |  |

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|  | • Languages (German, Spanish, French,English & Irish)• Linguistics• Mobile interfaces & softwareapplications• Multimedia design (front end)• Music Technology - production &facility development• Music- (composing and conducting)• Photography• Play / Theatre (writing, directing andproduction)• Product Design and innovation (Toys, Engineering Enclosures, clinical applications, consumer product)• Poverty & Development• Radio Broadcasting• Screenwriting & story-editing• Search engine optimisation• Sound Engineering - recording, programming, sound design, soundsystems & acoustics• Video, Media Management &Streaming• Viral marketing• Web and email marketing• Web Development (with particular focus on media rich content)* Applied Art & Craft – Ceramics, fine art
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| Arts, Humanities, Design, Built environment | •Architectural Design & Technology•Art in Public, communities and socialissues•Building Services and EnergyEngineering•Building Surveying•CAD prototyping and customisation of apparel in 2 and 3 D views•Civil Engineering•Construction Engineering andManagement•Digital Imaging•Environmental Health• | Kerry Patterson (as above) |  |  |  |

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|  | •Fire safety testing and engineering\*Finite Element analysis -Structures\*Finite Element analysis -Fire\* Concrete Structures\*Steel Structures\*Structural Analysis•Furniture Design•Housing Management•Interactive Multimedia Design•Interior Design Services•Irish Visual Culture•Landscape Architecture•Photography•Product Design – 2D, 3D Prototyping•Product Design Innovation: Specialisms in Scientific instrument Design, Medical Device Design, construction industry products, Telecoms devices, ICT peripherals, production furniture design, design for disability, user interface design.•Property Investment and Development•Quantity Surveying•Renewable Energy Management•Silversmithing – Jewellery, TrophyDesign•Sustainable Technologies services•Textile Material product•Textiles & Fashion Design•Urban Planning and PropertyDevelopment•Visual Communication and graphicDesign•Web Design |  |  |  |  |
| Social Sciences | •Corporate video production•Internal Communication•Public Relations•Lobbying•Social and consumer research•Employment Law•Social Services•Interpersonal Communication Skills | Kerry Patterson (as above) |  |  |  |

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|  | •360 degree executive assessmentpractices•Selection, recruitment and developmentassessments•Interviewing practices•Presentation Skills•Negotiation and Bargaining Skills•Executive Mentoring.-Integrated marketing communications-Branding-Advertising |  |  |  |  |
| Computing andEngineering | • Software Development•Software Quality• Knowledge and data engineering• Software process engineering• Telecommunications and networkengineering• Image processing• Self-managing systems and autonomic computing• Software system analysis, design,reuse and maintenance• Intelligent network resourcing andperformance management• Speech Technologies & NaturalLanguage Processing• Computational intelligence• Spiking neural networks• Fuzzy systems• Multiple valued logic systems• Cognitive robotics• Intelligent multimedia• Wireless sensory systems• Design automation• Machine vision systems• Bio-inspired computational systems• Cognitive robotics• Ambient intelligence• Brain/computer interfacing• Human Computer Interaction,• Usuability• Open Innovation• 2D and 3D Digital Animation• 2D and 3D Games Design | Kerry Patterson (as above) |  |  |  |

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|  | •3D Computer Modelling & Visualisation•Interactive Media•Telecommunications Technologies• Wireless Technologoes• Mobile Interfaces & SoftwareApplications• Multimedia Design & Development• Internet Technologies• Web Development (including mediarich content)• Search engine optimisation• Viral marketing• Web and email marketing• Robotics• Intelligent Systems• Embedded Systems• CAD / CAM• Product Design & Innovation• Lean Manufacturing• Medical Devices• Design & Development of ConnectedHealth Product & Service Solutions• Polymers & Advanced Materials• Engineering Composites• Materials characterisation• Sensors• Biomaterials• Plasma processing• Metal forming• Nanoscience and nanofabrication• Finite Element Analysis• Prototyping• Testing•Printed Circuit Board (PCB) design andbuild•3D Printing (rapid prototype)•Thermal Imaging• Biomaterials• Bioceramics• Bio-polymers• Metals• Alloys |  |  |  |  |

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|  | • Implant Devices• Biocompatibility• Surface Chemistry• Surface analysis• X-ray photoelectron spectroscopy• Time-of-flight secondary IonMass Spectroscopy (TOF-SIMS)• Tissue engineering• Pre-clinical Analysis• Advanced Materials• Biomedical engineering education• Health Technology Assessment• Health Technology Assessment of medical devices & emerging health technologies• Patient pathway analysis• Human factors engineering• Usability testing• Clinical Chemistry• Point of Care Diagnostics• Immunology – ELISA• Immunoturbidimetric assays• Biochip assay development• Quality control Microbiology• Cell culture• Second messenger analysis• Cell banking |  |  |  |  |
| Life and HealthSciences | • Nutritional human intervention trials within a dedicated HumanIntervention Studies Unit (HISU), including strictly-controlled residential studies• Recruitment and selection of volunteers• Scientific support for healthclaims | Kerry Patterson (as above) |  |  |  |

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|  | • Scientific testing of potentialhealth benefits associated with food products and dietary supplements• Dietary analysis• Analysis of nutrition content of recipes• Preparation of duplicate mealsAssessment of body composition (whole body and regionspecific)• Bone density measurements• Phlebotomy• Blood processing• Gastrointestinal sample processing• Clinical chemistry analysis• Resting energy expenditure & free-living energy expenditure measurements• Physical fitness testing• Physical activity monitoring• Cardiovascular & respiratory function measurements• Ambulatory blood pressure monitoring• Grip strength measurements• Development and validation of biomarkers of health and disease• Assessment of B vitamin status– B2, B6, B12, folate• Assessment of fat soluble vitamins – vitamin D, vitamin E (tocopherols & tocotrienols)• Assessment of bone turnover markers• Cytokine analysis• Trace element analysis –copper, zinc• Mass spectrometric analysis•3D CT Imaging and Surface Modellingwith Rapid Prototyping Technology•Applied Behavioural Analysis•Bioimaging |  |  |  |  |

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|  | •Bioredmediation•Bone Density Measurement•Concept Development•Consumer Research•Counselling•Development and Evaluation ofFunctional Foods•Development of International HealthCare Systems•Development of Sports Facilities andActivities•Development of Tools for Health Careand Rehabilitation•Development and Validation ofBiomarkers•Environmental Management Systems•Food Safety Management Systems•Forensic Medicine•Fuel Poverty•Human Intervention Studies•Infection Control•Innovative Practice in Health Services•Learning Disability Policies andStrategies•Mass Spectrometric Analysis•Natural Products Characterisation•Nutraceutical Applications•Occupational Therapy•Optometry•Physiotherapy•Pollution Monitoring•Pre-Clinical Drug Discovery•Proteomics•Research Skills Training•Scientific Literature Reviews•Small Batch Fermentation•Spatial Mapping for Health Care•Planning and Facilities Management•Sports Performance and Technology•Speech Therapy•Surveys for Business and Community•Systems Biology•Waste Treatment |  |  |  |  |

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|  | Bioimaging Core Facility Unit World leading facility with extensive expertise in:Electron MicroscopyScanning Electron Microscopy• High Vacuum• Variable Pressure• Environmental SEM• Cryo-SEM• Dual Beam FIB/SEM milling• Cryo Dual Beam• Micro and nano sample manipulationTransmission Electron Microscopy(including 3D tomography) Optical Microscopy• STED Super ResolutionConfocal microscopy• Fluorescence Microscopy• Phase Contrast/Dark Field• Stereo Zoom• Laser Capture microscopy• Micro-injectionImage AnalysisHigh quality, multi-dimensional digital image processing and analysisSample ProcessingFull range of support facilities for sample culture, storage, manipulation and all types of sample processing.A proven track record of working with industry from small companies to world leading Pharma. Additional information is available at |  |  |  |  |

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|  | <http://biomed.science.ulster.ac.uk/bmsri/->Bioimaging-Core-Facility- |  |  |  |  |
| Ulster Business School | •Project management•Finance and investment•Marketing•Entrepreneurship•Operation management•Strategic management and logistics•Supply chain management•Bespoke training•Recruitment and selection•Management training•New business model development•Marketing strategy and business development plans (Create differentiation for your business, Strengthen your company’s market position, Improve your staff’s sales productivity, Develop a strategic marketing mix, Expand your market share, Enhance your company’s marketing communications•Using Internet for Marketing•Marketing communications activity•Development of company identity/brand•Marketing research projects, including Customer Satisfaction Surveys, Competitor, Customer and Market Analysis•Hospitality Marketing Marketing Food and Wine Alcoholic Beverage Management Business Planning•Marketing Strategy Development andImplementation•Promotional and PR Activities•Business Planning•Strategy Development•Clustering•Export Market Research•Funding Submissions•Strategic Development•Information Systems Management | Kerry Patterson (as above) |  |  |  |

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|  | •Information ManagementE Business•People Development•Project Management•Customised and open management and business development solutions. (Topic areas include Strategy, Finance, Leadership, People Management & Development, Recruitment & Selection including Assessment & Development Centres, Marketing, Finance, Business Improvement, Governance & Business Ethics)•Accounting, finance, audit andcorporate governance.•Development of Co-creation and living lab processes•Development of user-orientated and lead user processes•Development of Open innovationmanagement and HR practices•Open Business Model Developmentand Audit•Sensory testing of both food andbeverages•Functional test on products•New Concept Development•Benchmark tests with market leaders•Development of product ranges•Development of recipes on a product by product basis so as to add value/healthier/added nutrients etc•Use of testing suite with panellists•Provision of advice and guidance on how products can be ‘scaled up’ and assist with the implementation•Marketing research examining the trends in various food and beverages categories•Identification of the main trends takingplace and categorisation of any |  |  |  |  |

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|  | particular emerging innovations anddevelopments•Identification of changes in consumer behaviour and how the various factors impact on consumer choice•Qualitative research into consumer attitudes, perceptions and opinions toward new packaging, ideas,innovations and product/services•Access to shelf life analysis•Measurement and recording food intake•Microbial counts within foods•Drawing up HACCP, Quality Control and Quality Assurance procedures and manuals on a company by company basis•Analysis of the nutrition content ofrecipes on a product by product basis•Extending Shelf Life•General Consumer research•Menu Development•Tailored Training Courses•Equipment Testing•Food and Wine Matching•Stock Control implementation |  |  |  |  |
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