**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 / repairing  failed 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 & software  applications  • Multimedia design (front end)  • Music Technology - production &  facility development  • Music- (composing and conducting)  • Photography  • Play / Theatre (writing, directing and  production)  • 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, sound  systems & 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 |  |  |  |  |
| Arts, Humanities, Design, Built environment | •Architectural Design & Technology  •Art in Public, communities and social  issues  •Building Services and Energy  Engineering  •Building Surveying  •CAD prototyping and customisation of apparel in 2 and 3 D views  •Civil Engineering  •Construction Engineering and  Management  •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, Trophy  Design  •Sustainable Technologies services  •Textile Material product  •Textiles & Fashion Design  •Urban Planning and Property  Development  •Visual Communication and graphic  Design  •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 assessment  practices  •Selection, recruitment and development  assessments  •Interviewing practices  •Presentation Skills  •Negotiation and Bargaining Skills  •Executive Mentoring  .-Integrated marketing communications  -Branding  -Advertising |  |  |  |  |
| Computing and  Engineering | • Software Development  •Software Quality  • Knowledge and data engineering  • Software process engineering  • Telecommunications and network  engineering  • Image processing  • Self-managing systems and autonomic computing  • Software system analysis, design,  reuse and maintenance  • Intelligent network resourcing and  performance management  • Speech Technologies & Natural  Language 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 & Software  Applications  • Multimedia Design & Development  • Internet Technologies  • Web Development (including media  rich 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 Connected  Health 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 and  build  •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 Ion  Mass 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 Health  Sciences | • Nutritional human intervention trials within a dedicated Human  Intervention Studies Unit (HISU), including strictly-controlled residential studies  • Recruitment and selection of volunteers  • Scientific support for health  claims | Kerry Patterson (as above) |  |  |  |

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|  | • Scientific testing of potential  health benefits associated with food products and dietary supplements  • Dietary analysis  • Analysis of nutrition content of recipes  • Preparation of duplicate meals  Assessment of body composition (whole body and region  specific)  • 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 Modelling  with Rapid Prototyping Technology  •Applied Behavioural Analysis  •Bioimaging |  |  |  |  |

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|  | •Bioredmediation  •Bone Density Measurement  •Concept Development  •Consumer Research  •Counselling  •Development and Evaluation of  Functional Foods  •Development of International Health  Care Systems  •Development of Sports Facilities and  Activities  •Development of Tools for Health Care  and Rehabilitation  •Development and Validation of  Biomarkers  •Environmental Management Systems  •Food Safety Management Systems  •Forensic Medicine  •Fuel Poverty  •Human Intervention Studies  •Infection Control  •Innovative Practice in Health Services  •Learning Disability Policies and  Strategies  •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 Microscopy  Scanning Electron Microscopy  • High Vacuum  • Variable Pressure  • Environmental SEM  • Cryo-SEM  • Dual Beam FIB/SEM milling  • Cryo Dual Beam  • Micro and nano sample manipulation  Transmission Electron Microscopy  (including 3D tomography) Optical Microscopy  • STED Super Resolution  Confocal microscopy  • Fluorescence Microscopy  • Phase Contrast/Dark Field  • Stereo Zoom  • Laser Capture microscopy  • Micro-injection  Image Analysis  High quality, multi-dimensional digital image processing and analysis  Sample Processing  Full 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 and  Implementation  •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 Management  E 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 and  corporate governance.  •Development of Co-creation and living lab processes  •Development of user-orientated and lead user processes  •Development of Open innovation  management and HR practices  •Open Business Model Development  and Audit  •Sensory testing of both food and  beverages  •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 taking  place and categorisation of any |  |  |  |  |

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|  | particular emerging innovations and  developments  •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 of  recipes 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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