## **Engineering and Physical Sciences Faculty (EPS)**

| Name                                | School/Centre                            | Research fields in which interested in acting as a supervisor.   | Link to research profile and email address                      |
|-------------------------------------|--|--|---|
| Aleksandar<br>Novakovic             | Mathematics and Physics                  | Artificial Intelligence, Data Science, Agri Tech/AI,<br>One Health AI  | https://pure.qub.ac.uk/en/persons/aleksandar-novakovic          |
| Hamidreza<br>Siampour<br>Ashkavandi | Mathematics and Physics                  | Integrated quantum optics, nanophotonics, plasmonics, nanomaterials, semiconductor devices   | https://pure.qub.ac.uk/en/persons/hamidreza-siampour-ashkavandi |
| Dermot Green                        | Mathematics and Physics                  | Theoretical and computational physics and chemistry; atomic and molecular physics, manybody physics, electronic structure, antimatter physics, machine learning.   | https://blogs.qub.ac.uk/antimatter/dermot/                      |
| Mark Berney                         | Chemistry and Chemical Engineering       | Nucleic acids chemistry, including nucleotide modifications, mRNA vaccines and RNA-protein interactions.   | https://pure.qub.ac.uk/en/persons/mark-berney                   |
| Efrosyni<br>Themistou               | Chemistry and<br>Chemical<br>Engineering | Polymer synthesis, Well-defined polymeric nanostructures, Amphiphilic block copolymer self-assembly, Degradable polymers, Hydrogels, Biomaterials, Polymer-protein interactions, Polymer biomedical applications, Polymeric pharmaceutical formulations, Polymeric matrices for tissue engineering | https://pure.qub.ac.uk/en/person<br>s/efrosyni-themistou        |
| Nicole Gui                          | Chemistry and<br>Chemical<br>Engineering | Hydrogen fuel; carbon capture and utilisation  | https://pure.qub.ac.uk/en/persons/nicole-gui                    |
| Meilan Huang                        | Chemistry and<br>Chemical<br>Engineering | Computational Chemistry and Biology, Machine learning in biocatalysis, Theoretical catalysis in photocatalysis   | https://pure.qub.ac.uk/en/person<br>s/meilan-huang              |
| Leila Moura                         | Chemistry and<br>Chemical<br>Engineering | Carbon capture, ionic liquids, porous liquids, deep eutectic solvents, gas separation, microporous polymers  | https://pure.qub.ac.uk/en/person<br>s/leila-moura               |

| Panagiotis<br>Manesiotis | Chemistry and<br>Chemical<br>Engineering                 | Synthetic receptors, sensors, nutrient recovery and sustainability, functional polymers, analytical chemistry, solid-state NMR   | https://pure.qub.ac.uk/en/pers<br>ons/panagiotis-manesiotis<br>https://pure.qub.ac.uk/en/pers<br>ons/leila-moura |
|--------------------------|--|--|--|
| Hannah Crory             | Chemistry and<br>Chemical<br>Engineering                 | Antimicrobial materials science, dynamic covalent bonding networks, responsive materials, glycosylated polymers  | https://pure.qub.ac.uk/en/pers<br>ons/hannah-crory-2   |
| John Holbrey             | Chemistry and<br>Chemical<br>Engineering                 | Applications of ionic liquid technologies to sustainable manufacturing and resource use  | https://pure.qub.ac.uk/en/pers<br>ons/john-holbrey   |
| Stephen<br>Cochrane      | Chemistry and<br>Chemical<br>Engineering                 | Chemical synthesis of new antibiotics, chemical probes to study antibiotic mechanisms  | https://pure.qub.ac.uk/en/pers<br>ons/stephen-cochrane   |
| Peter<br>Nockemann       | Chemistry and Chemical Engineering                       | Sustainable metal recovery, batteries / energy storage, redox flow batteries, rare earth chemistry, hydrometallurgy, e-waste recycling                                 | https://pure.qub.ac.uk/en/pers<br>ons/peter-nockemann  |
| Haresh Manyar            | Chemistry and<br>Chemical<br>Engineering                 | CO2 hydrogenation, Biomass conversion to fuels and chemicals, Photoreforming for Hydrogen production   | https://pure.qub.ac.uk/en/pers<br>ons/haresh-manyar  |
| Andrew Marr              | Chemistry and<br>Chemical<br>Engineering                 | Green & Sustainable Chemistry; Biocatalysis for platform organics; Biomass to organic chemicals  | https://pure.qub.ac.uk/en/pers<br>ons/andrew-marr  |
| Mohammad<br>Neshat       | Electronics, Electrical Engineering and Computer Science | Future wireless THz communication and sensing, Spatio-temporal modulated meta-media, • Reconfigurable electromagnetic (EM) media                                       | https://pure.qub.ac.uk/en/person<br>s/mohammad-neshat  |
| Yun Wu                   | Electronics, Electrical Engineering and Computer Science | Approximate Computing, Reconfigurable Accelerator, Computer Architecture, Parallel & Heterogeneous Computing, Convex Optimization, Computer Vision, Autonomous Systems | https://pure.qub.ac.uk/en/persons/yun-wu-2   |
| Qiuwei Wu                | Electronics,<br>Electrical                               | control of power systems   | https://pure.qub.ac.uk/en/person<br>s/qiuwei-wu  |

|                            | Engineering and Computer Science  |   |   |
|----------------------------|---|---|---|
| Yang Hua                   | Electronics, Electrical Engineering and Computer Science  |   | https://pure.qub.ac.uk/en/persons/yang-hua                |
| Nikolaos<br>Athanasopoulos | Electronics, Electrical Engineering and Computer Science / Energy Power Intelligent systems and Control | Control theory, control engineering, robotics, manufacturing, set based methods, reachability analysis, formal methods, data-driven control | https://pure.qub.ac.uk/en/persons/nikolaos-athanasopoulos |
| Ihsen Alouani              | Electronics, Electrical Engineering and Computer Science /Centre for Secure internet technologies       | Trustworthy AI  | https://pure.qub.ac.uk/en/persons/ihsen-alouani           |
| Arnab Kumar<br>Biswas      | Electronics, Electrical Engineering and Computer Science /Centre for Secure internet technologies       | Hardware security, Network security, Advanced computer architecture   | https://pure.qub.ac.uk/en/persons/arnab-kumar-biswas      |
| Chongyan Gu                | Electronics, Electrical Engineering and Computer Science /Centre for Secure internet technologies       | hardware security, security in or for approximate computing   | https://pure.qub.ac.uk/en/persons/chongyan-gu             |
| Jie Zhang                  | Electronics, Electrical Engineering and Computer Science/   | Wireless sensing, AloT, wearable computing  | https://pure.qub.ac.uk/en/persons/jie-zhang               |

|                | Centre for Wireless<br>Innovation   |  |  |
|----------------|---|--|--|
| Ayesha Khalid  | Electronics, Electrical Engineering and Computer Science /Centre for Secure internet technologies | Electronics, Electrical Engineering and Computer<br>Science /Centre for Secure internet technologies<br>Hardware Security, Post Quantum Cryptography,<br>Side Channel Analysis | https://pure.qub.ac.uk/en/pers<br>ons/ayesha-khalid  |
| Dan Sun        | Mechanical and<br>Aerospace<br>Engineering  | functional nanocomposites, thermoplastic composites, biomaterials, plasma processing   | https://pure.qub.ac.uk/en/persons/dan-sun            |
| Scott Millen   | Mechanical and<br>Aerospace<br>Engineering  | Composite Materials, Finite Element Analysis (FEA), Low velocity impact (LVI) and compression after impact (CAI), Lightning strike modelling, Fire-Structure Interactions      | https://pure.qub.ac.uk/en/persons/scott-millen       |
| Gasser Abdelal | Mechanical and<br>Aerospace<br>Engineering  | Material characterisation using AI - Multiphysics<br>numerical modelling using DLNN - Novel Space<br>Debris removal systems  | https://pure.qub.ac.uk/en/person<br>s/gasser-abdelal |
| Jay Lin        | Mechanical and<br>Aerospace<br>Engineering  | Lithium-ion batteries, energy storage, sustainable energy technologies, thermal management   | https://pure.qub.ac.uk/en/persons/jay-lin            |
| Eileen Murphy  | Natural and Built<br>Environment  | Bioarchaeology   | https://pure.qub.ac.uk/en/persons/eileen-murphy      |
| Wei Sha        | Natural and Built<br>Environment  | Materials science; Construction materials  | https://pure.qub.ac.uk/en/persons/wei-sha            |

## **Arts and Humanities Faculty (AHSS)**

| Name          | School/Centre               | Research fields in which interested in acting as a supervisor.  | Link to research profile and email address      |
|---------------|-----------------------------|---|---|
| Anne Holloway | Arts, English and Languages | Early Modern Spanish Literature and Culture   | https://pure.qub.ac.uk/en/persons/anne-holloway |
| Luke Moffett  | Law                         | Civilian harm, international humanitarian law, artificial intelligence in war, OSINT in armed conflict and justice efforts, reparations | https://pure.qub.ac.uk/en/persons/luke-moffett  |
| Hangfei Guo   | Queen's Business<br>School  | supply chain simulation and analytics, data-driven decision making.   | https://pure.qub.ac.uk/en/persons/hangfei-guo   |

## Medicine, Health and Life Sciences Faculty (MLHS)

| Name          | School/Centre   | Research fields in which interested in acting as a supervisor.                                  | Link to research profile and email address      |
|---------------|---|---|---|
| Rebecca Coll  | Medicine, Dentistry<br>and Biomedical<br>Science/Welcome<br>Wolfson Institute for<br>Experimental<br>Medicine | Innate immunity, inflammasome biology, temperature regulation in the immune response e.g. fever | https://pure.qub.ac.uk/en/persons/rebecca-coll  |
| Beckie Ingram | Medicine, Dentistry and Biomedical Science/Welcome Wolfson Institute for                                      | Immunity to infection, vaccinology, respiratory bacterial infection.                            | https://pure.qub.ac.uk/en/persons/beckie-ingram |

|                         | Experimental<br>Medicine  |  |  |
|-------------------------|---|--|--|
| Anna<br>Krasnodembskaya | Medicine, Dentistry<br>and Biomedical<br>Science/Welcome<br>Wolfson Institute for<br>Experimental<br>Medicine | Mesenchymal stromal cell and extracellular vesicles-based therapies for respiratory disease; Role of lung-resident MSCs in lung health and disease; Lung organoids; Mitochondrial dysfunction and mitochondria based therapy for respiratory diseases. | https://pure.qub.ac.uk/en/persons/anna-krasnodembskaya |
| Miguel A. Valvano       | Medicine, Dentistry<br>and Biomedical<br>Science/Welcome<br>Wolfson Institute for<br>Experimental<br>Medicine | Cellular and molecular microbiology, antibiotic resistance, innate immunity, macrophage/epithelial cells-bacteria interactions   | https://pure.qub.ac.uk/en/persons/miguel-avalvano      |
| Cliff Taggart           | Medicine, Dentistry<br>and Biomedical<br>Science/Welcome<br>Wolfson Institute for<br>Experimental<br>Medicine | Development of host-directed therapeutics for the treatment respiratory bacterial infection  | https://pure.qub.ac.uk/en/pers<br>ons/cliff-taggart    |
| Ruth Hogg               | Medicine, Dentistry<br>and Biomedical<br>Sciences/ Centre for<br>Public Health                                | Epidemiology, vision science, ophthalmology, optometry   | https://pure.qub.ac.uk/en/persons/ruth-hogg            |
| David Wright            | Medicine, Dentistry<br>and Biomedical<br>Sciences/ Centre for<br>Public Health                                | Data Science, Machine Learning and AI for medicine, especially ophthalmology.  | https://pure.qub.ac.uk/en/persons/david-wright         |
| Karen McCloskey         | Medicine, Dentistry<br>and Biomedical<br>Sciences/ Patrick G<br>Johnston Centre for<br>Cancer Research        | Cancer Research, Physiology, Pharmacology, Urology   | https://pure.qub.ac.uk/en/person<br>s/karen-mccloskey  |

| Mehdi Jafarnejad  | Medicine, Dentistry<br>and Biomedical<br>Sciences/ Patrick G<br>Johnston Centre for<br>Cancer Research | RNA Biology   | https://pure.qub.ac.uk/en/persons/mehdi-jafarnejad         |
|-------------------|--|---|--|
| Ian Overton       | Medicine, Dentistry<br>and Biomedical<br>Sciences/ Patrick G<br>Johnston Centre for<br>Cancer Research | Precision medicine,<br>bioinformatics/computational biology, Network<br>biology, Cell decision processes, Cancer<br>research, Drug and vaccine discovery, Data<br>science, Integrative machine learning/AI for<br>biomedical applications | https://pure.qub.ac.uk/en/pers<br>ons/ian-overton          |
| Oliver Perra      | Nursing & Midwifery  | Child and infant development; Developmental disorders; Childhood disability; Interventions for caregivers and parents; Innovative quantitative research designs; Advanced statistical methods.  | https://pure.qub.ac.uk/en/person<br>s/oliver-perra         |
| Tim Skvortsov     | Pharmacy   | Phage biology, phage synthetic biology, microbial bioinformatics  | https://pure.qub.ac.uk/en/persons/tim-skvortsov            |
| Dimitrios Lamprou | Pharmacy   | 4D Printing, Bioprinting, Microfluidics, Lab-on-a-chip, Pharmaceutics   | https://pure.qub.ac.uk/en/persons/dimitrios-lamprou        |
| Garry Laverty     | Pharmacy   | Drug delivery, biomaterials, pharmaceutical microbiology; medicinal chemistry; peptide science  | https://pure.qub.ac.uk/en/person<br>s/garry-laverty        |
| Eneko Larrañeta   | Pharmacy   | Drug delivery, biomaterials, 3D-printing, pharmaceutical materials science; implantable devices; medical devices; long-acting drug delivery   | https://pure.qub.ac.uk/en/pers<br>ons/eneko-larra%C3%B1eta |