**LJMU IHR COVID-19 Research, Innovation and Knowledge Exchange Update June 2020**

**INTRODUCTION**

Throughout the COVID19 pandemic LJMU and other local HEIs have been focusing their research towards addressing this emergency. This has included projects spanning from developing new medicines to addressing the impact of existing health inequalities in the Liverpool City region on population outcomes. Working with external partners and agencies we have contributed to a collaborative approach to tackling the ongoing emergency and looking towards the recovery from this period including addressing the physical and mental wellbeing of the frontline NHS.

In terms of supporting and promoting COVID19 research activities, the role of the IHR is two-fold.

1. To work with the Pro-VC Research and Enterprise to capture and disseminate COVID19-related projects, ideas and relevant expertise from across LJMU.
2. To engage with the external health and social care sector by discussing priorities, creating partnerships and disseminating collaborative opportunities across LJMU.

The IHR mailing list is a useful means for communicating with health and health related researchers across LJMU rather than using all-Faculty lists. If you are not a currently on the mailing list please let me know if you would like to be added.

**If anybody would like more information on the content below, would like to add content or can see an opportunity to collaborate please contact G.A.Hutcheon@ljmu.ac.uk**

I am disseminating LJMU expertise and activities both internally and externally on a regular ongoing basis.

**Internal Activities**

## **LJMU Covid-19 Rapid Response Call:**

Following an internal call for COVID19 related projects, the following were selected to progress:

* **Imran Saleem**: Pulmonary delivery of peptide-based smart materials used for treatment and prevention of SARS-CoV-2 induced lung injury
* **Ian Jenkinson:** A technical study to enable dental practices to develop and implement measures to minimise or potentially eliminate patient and dental staff exposure to Coronavirus Covid-19.
* **Ian Jones**: Should I stay or should I go? An exploration of the decision making behaviour of acute cardiac patients during the Covid-19 pandemic
* **Thanh Nguyen**: Simulation research to investigate and optimise social distancing in public transport in Liverpool City Region.
* **Vivian Hope**: The PHOENIX Project: A survey of People and Households’ Ongoing Efforts in Response to the National COVID-19 Guidance and its Impacts Across the North West.
* **Michelle McManus**: Police reporting, recording and responses to domestic abuse in covid-19: how can we best safeguard the silent, repeat and most vulnerable victims in lockdown.

**GCRF fund repurposed to COVID-19 projects with a global impact:**

The global pandemic caused major disruption to our portfolio of Global Challenges Research Fund projects, funded through an annual uplift of QR from Research England.  Individual project holders were therefore invited to change elements of their plans or repurpose the funds to address the effect of COVID-19 in developing countries. The following projects are now in progress or due to start soon.

* Awaiting information from RIS

**External Support & Collaborative Opportunities**

**Liverpool Health Partners (LHP)**

LHP are fully supporting COVID-19 research and innovation and are working with LHP members (7bNHS trusts, GGC, LJMU, UoL, LSTM, Edge Hill, NWC CRN) and the wider health and social care sector to ensure a collaborative approach is taken and the best expertise is employed.

**Liverpool STOP COVID alliance**

In 2019, LHP launched the Single Point of Access for Research and Knowledge (SPARK) to expedite and standardise the development and set up of clinical research across the University of Liverpool, 7 NHS Trusts and one CCG, with further LHP members (including LJMU) to join endeavours over time. The COVID-19 pandemic has placed considerable strain on NHS systems so LHP and the CRN NWC are working collaboratively to strategically prioritise and operationally enable COVID-19 clinical research (identifying/ developing studies, setting up, activation, recruitment and delivery). To achieve this a temporary command and collaboration structure has been established to deliver a rapid research response for the people of Liverpool and to contribute to the worldwide effort in defeating the disease; the **ST**rategic **O**ne **L**iverpool **P**artnership for COVID (**STOP COVID**)

* Rapid set up and delivery of [national Urgent Public Health studies and local strategic research](https://liverpoolhealthpartners.org.uk/spark/coronavirus-covid-19-and-research-across-lhp/current-lhp-covid-19-research/%29)
* Developing a local volunteering initiative to support COVID research; the [COVID Collaborative Volunteer Scheme (COVID-COVER)](http://liverpoolhealthpartners.org.uk/covid-cover-volunteer/)

For further information about the initiative visit: <https://liverpoolhealthpartners.org.uk/spark/coronavirus-covid-19-and-research-across-lhp/liverpool-stop-covid/>

**SLACK workspace for COVID19 (CIPHA)**



The University of Liverpool have established a Slack workspace for COVID research and resources call CIPHA. This is open to any researchers and serves as a platform to share resources, ideas, collaborative opportunities etc. Entry to the workspace is by invite so please contact G.A.Hutcheon.ac.uk if you would like to be added to any threads. Once on the system you can chose to join whatever groups are of interest to you. e.g. data, mental health, therapeutics, care homes, alcohol, resources etc.

**Social Sciences/COVID-19**

In response to the COVID-19 pandemic, the Liverpool academic community has come together to form a partnership supported by existing grant funding and a Strategic Research Fund of £1.1M, through the support of UoL (£400K), Alder Hey Children’s Hospital (£300K), CEIDR Innovations (£250K) and HPRU-EZI (£150K). From this fund, a Social Science research programme has been funded, led by Prof Sally Sheard with LHP support, focused on these areas:

* Covid-Liv Cohort Study: The psychological and social impact of COVID-19
* Understanding choice, control and risk in public and community responses to the COVID--19 epidemic across the health divide to inform public health strategies in UK and Malawi
* Rapid and responsive development of support materials for health and social care workers in an unprecedented public health emergency
* Distortion of Health and Social Care Systems
* Responding to the COVID-19 economic (after)shocks: Developing learning and resources to strengthen the resilience of the Liverpool City Region economy
* Generating actionable evidence for containing the spread of COVID-19 misinformation

The Social Science/COVID-19 (SSCOVID) programme projects are designed to answer key questions for our population, health and care services, communities, businesses and the wider economy, while also drawing on key international comparisons. They have been chosen as important areas for study because they concentrate on key aspects of COVID-19 that affect our daily lives, health care delivery and the wider regional economy. They draw together expertise to complement and link with biomedical-focused research.

A SSCOVID leadership group has been created to develop collaboration across project areas. It is enabling learning across the programme, and linking with other relevant partners across the Cheshire and Merseyside region. Lisa Jones (PHI) is representing LJMU on the LHP Social Sciences Leadership group, reporting on the Recovery Plans work she is providing support for with Matt Ashton (Liverpool DPH) and Sally Sheard (UoL).

**Nursing home care**

The region has continued to be an outlier with high/unexplained transmission, death rates and pressures. Our region may also have a greater proportion of high-transmission neighbourhoods who are key-workers, living in close proximity and connected across care home hubs of exposure/transmission. LHP is coordinating a team of researchers interested in tackling this issue. More info and discussions on <https://cipha.slack.com/archives/C012A3HJK7C>

Potential project areas

 1.  Care-worker and carer resilience

 2.  (Social) Epidemiology:

3. Care home sustainability and system policy modelling:

LJMU researchers expressing an interest:

Mark Arnold- Experience of Nursing home research

Julie Connolly- Experience of research related to survivorship

Kayleigh Sheen- Experience of supporting and preventing PTSD in healthcare staff and students

Catrin Eames- Experience of resilience, wellbeing, suicide prevention, mental health

Rafaela Neiva Ganga- would be interested in undertaking work from the arts and culture perspective.

**NWC Applied Research Community (ARC)**

The Applied Research Collaboration North West Coast (ARC NWC) consists of health and social care providers, NHS commissioners, local authorities, universities, public advisers, the Innovation Agency (Academic Health Science Network), working together to learn more about these health inequalities, and overcome the barriers around translating these discoveries in health research into practice which improves lives. The ARC has four research themes reflecting local needs. These are: ‘Person-Centred Complex Care’, ‘Improving Population Health’, ‘Equitable Place-based Health and Care’, and ‘Health and Care across the Life-course’. There are also two cross-cutting themes that provide expertise and guidance to support research theme activity: ‘Care and Health Informatics’ and ‘Methodological Innovation Development Adaptation and Support’

During the current pandemic the ARC are trying to maintain momentum towards addressing the key aims and objectives agreed with the National Institute for Health Research for ARC NWC but are also aware of the impact of the COVID19 pandemic on its members and the NWC population.

**“As a member led organisation, the ARC NWC Steering Board and Management Team are content to be guided by you in relation to the exact nature of support you require balanced against what ARC NWC can realistically facilitate in terms of its own resources. However, as the collaboration consists of acute trusts, local authorities, primary care networks, academics, public advisers, research communities and third sector partners we can offer real potential in terms of our reach to stakeholders across the regional health economy, access to specialist knowledge, insights into communities and support services which all feature in the health and social care chain. We would be keen to facilitate any requests from our members which can help both themselves and the wider north west health economy”**

LJMU is a member of the ARC and is represented at its meetings by Gillian Hutcheon, Harry Sumnall and Lynne Boddy/Bill Baltzopoulos. Researchers are also able to attend the quarterly ARCfests to discuss ideas and network but these are not taking place during the current pandemic.

Further information about the ARC and its themes are available here <https://arc-nwc.nihr.ac.uk/>

COVID19 specific activity can be accessed from here <https://arc-nwc.nihr.ac.uk/latest-updates/coronavirus/>

Please contact G.A.Hutcheon@ljmu.ac.uk prior to engaging directly with the ARC as there are specific forms to be used for engagement and the IHR board require oversight of any project ideas, requests for help etc. before submission to the ARC.

**Higher Education Institutions**

In addition to engaging with the NHS external health care partners, during this period LHP are organising a series of meetings between HEI’s from across the local region to discuss on-going projects and expertise in applied health and social care in addition to the ongoing clinical/NHS research.

At the first meeting in April representatives from LJMU (Keith George, Gillian Hutcheon and Lisa Jones) met online with academics from University of Liverpool, Liverpool School of Tropical Medicine, Edgehill and Mark Gabby from the ARC. This first meeting enabled introductions to be made and a brief overview of research activities to be described. LHP are currently collating the information and following on from this we will work together to make introductions across our institutes and explore potential collaborations around COVID19 and looking into the future.

**Database of COVID19 projects (ongoing and bid development)**

**Faculty of Health**

Public Health Institute

The following provides a summary of PHI’s involvement in Covid-19 research. This programme of work has been developed in collaboration with wider partners in order to ensure our contribution meets current strategic needs and priorities. Key partners involved in the development and continued planning of our work includes (but is not limited to) Liverpool City Council (including the Director of Public Health, Public Health Teams and wider colleagues), Liverpool Health Partners, the Cheshire and Merseyside Public Health Network and the Liverpool City Region Wealth and Wellbeing Task and Finish Group.

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Lisa Jones | Covid-19 Recovery Planning, collaborating with the Cheshire and Merseyside Public Health Network.  | Leading a Cheshire and Merseyside-wide programme of research to explore the wider determinants of health in order to inform Liverpool’s Covid-19 Recovery Plans. This includes a rapid evidence review and rapid health impact assessment (and will feed into a longer-term health impact assessment). | A bid has been submitted to the internal LJMU Covid-19 funding call to ring-fence RA time to this work programme. |
| Hannah Timpson | Assessing unmet need in communities. | Developed a research proposal to carry out community-based research with Third Sector organisations, to understand more about the needs of vulnerable groups (including who these are). This proposal will feed into the work programme led by Lisa Jones (described above). The research will be developed in collaboration with key partners, including Liverpool City Council and the LCR Wealth and Wellbeing Task and Finish Group (led by led by Alan Higgins, North West Programme Manager, PHE).  | Bid under development |
| Zara Quigg | WHO funded research to understand the impacts of Covid-19 on violence against women and girls. | The WHO funded study is now confirmed: Zara has been leading a study in collaboration with the London School of Hygiene and Tropical Medicine to conduct a rapid assessment of the impacts of Covid-19 on violence against women and girls across the European Region, to assist WHO in supporting country prevention and response efforts. A cross LJMU team has been set up to support including PHI and LJMU communications teams (Faculty and LJMU level).  | The research is due to commence mid-May. |
| Mark Whitfield | Incorporating Covid-19 surveillance into PHI Intelligence and Monitoring Systems.  | PHI IMS have implemented a telephone survey with all Needle & Syringe Programme (NSP) providers across Cheshire and Merseyside, including pharmacies as well as drug and alcohol services. The survey will help commissioners understand the impact of social distancing measures on NSP service provision. PHI IMS has also incorporated a Covid-19 pop up for services that use IMS to collect data. PHI are collecting surveillance data to capture the impact of Covid-19 on their clients. The TIIG and VRP work captures data from sources including A&E and Ambulance (NWAS). This data is processed monthly and has evidenced the drop in trauma related attendances during the current lock-down period. | Research commenced  |
| Viv Hope | The PHOENIX Study: Exploring the impacts of Covid-19 restrictions and guidance on wellbeing of diverse population groups across the North West. | Viv is leading the PHOENIX study, a quantitative and qualitative study across the North West to explore the impacts of Covid-19 restrictions and guidance on wellbeing of diverse population groups. A multi-disciplinary team of researchers from PHI and Psychology are working on this project. Phase 1 (the survey) is underway; to date 1,430 people have entered and started the survey and there are now around 1,130 eligible full or near full participations (including those who exited incorrectly).  Phases 2 and 3 are follow-up and qualitative elements of the project. | Phase 1 Research commenced and internal COVID-19 bid for phase 2 successful |
| Pooja Saini (lead)Hannah TimpsonViv hopeGordon Hay | NIHR application to explore the impact of Covid-19 on BAME Health and Social Care Workers in the North West. | Pooja is leading an NIHR bid to explore the impact of Covid-19 on BAME Health and Social Care Workers in the North West. The bid is being developed collaboratively with LSTM, Uni of Manchester, Uni of Liverpool and others. Hannah Timpson, Viv Hope and Gordon Hay are involved as Co-Is to provide expertise around the survey and qualitative elements of the research.  | Bid submitted Monday 11th May. |
| Zara Quigg | Academic support to inform a partnership response to domestic abuse during Covid-19 and beyond. | Wirral Council has asked for academic support (via LHP) for involvement in their partnership response to domestic abuse during Covid-19 and beyond. PHI will support this and align with wider WHO research, and related violence reduction work across Cheshire and Merseyside.  | ongoing |
| Ivan Gee | Academic collaborative national study to explore whether smokers view COVID as a threat or a stress  | Collaborating on a COVID project led by Prof Sarah Grogan at MMU who we have an existing joint LJMU/MMU PhD studentship with. The project will be a national study to explore whether smokers view COVID as a threat or a stress and the impact that perception has on their likelihood of quitting and consumption | Awaiting ethical approval at MMU |
| Lisa Jones | Engagement with LHP Social Sciences group | Recovery plans | Collaboration underway |
| Lisa Jones | Collaborative study | Exploring links between the Liverpool-Madrid match and  the impact of coronavirus on the city with Matt Ashton | Underway |

Nursing and Allied Health

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Ian Jones Anitra Malin |  | Should I stay or should I go? An exploration of the decision making behaviour of acute cardiac patients during the Covid-19 pandemic. | Funded via internal COVID bid |
| Valerie Fleming | Maternity care  | Contributing to UoL led (Jo Harrold) UKRI application looking at “How is COVID-19 influencing maternity care and the experiences of both women and maternity care providers across a disadvantaged area within the North West?” | UKRI application under development  |
| Valerie Flemming |  Liverpool Health Commission: First 1000 days of life | The Commission has been collecting qualitative data from professionals and service users on health matters for both mothers and babies [within the first 1000 days of life] from around the UK with the overall aim of influencing future policy development. The project is perhaps uniquely placed to offer analysis of pre and post-Covid 19 health impacts on this particularly vulnerable section of our community.  | ongoing |

Psychology

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Pooja Saini;  |  | NIHR COVID-19 and Ethnicity  | Bid submission 11th May |
| Sam Brooks; Emma Ashworth |  | Three types of COVID lockdown response: links to neural processes of affect regulation.Using KCL research demonstrating 3 types of lockdown response in UK: accepting, suffering, resisting; Examine the links between online measures of working memory and dream transcripts.  | Preparing Ethics submission.  |
| Francis McGlone; Dave Moore; Connor Haggarty | Social touch as a predictor of mood and behaviour during Covid.  | Global online study running assessing the impact of social isolation on a number of measures - https://covid.iasat.org  The study is running in Chinese, Russian, Spanish, English, Dutch. Includes development of app.  | Data Analysis |
| Emma Ashworth | The long-term impact of COVID-19 and lockdown on early adolescents’ mental health | COVID-19: The TELL Study (Teenagers’ Experiences of Life in Lockdown): A qualitative exploration. Qualitative exploration of how 17-19 year olds subjectively experience wellbeing during lockdown.  | Data collection |
| Davide Bruno Francis McGlone | The impact of self-touch on promoting emotional well-being and reducing stress remotely: a COVID-19 study. | Investigating the soothing role of self-touch (e.g., touching oneself on the forearm by using video-instructions) in reducing negative affect and stress, providing comfort and promoting well-being the general population.  | Data collection |
| Ruth Ogden | Perceptions of the passage of time  | An online survey assessing perceptions of the passage of time during the pandemic. Has resulted in media coverage.  | Paper submitted |
| Mark Foreshaw | Professional doctorate studies | Various surveys around attitudes and perceptions to the pandemic | Data collection |
| Kayleigh Sheen  | Production of an online training resource for NHS frontline staff and students around the impact of workplace trauma and managing early stress responses.  | The training has been distributed by the operational development team, clinical psychology lead and wellbeing leads respectively to staff at Liverpool Royal, Aintree and Liverpool Women’s Hospitals in addition to the University of Liverpool Medical students and LJMU Midwifery students. We are evaluating use of the training and collecting views re. the utility. Regional Collaboration with Pauline Slade PI, Liverpool; Helen Spiby, Nottingham; Andrew Weeks, Liverpool Uni, Liverpool Women's hospital; Laura Goodfellow, Countess of Chester hospital.  | C0-I on external project Training deployed to frontline.  |
| Sam Roberts |  | Associations between social networks and changes in loneliness, anxiety and depression during the coronavirus lockdown period. This study examines how the characteristics of participants' social networks before the coronavirus lockdown started are associated with changes in loneliness, anxiety and depression during the lockdown period. It is based on a nationally representative sample and involves 3 waves of data collection in March (n = 500), June (n = 350) and September (n = 200)  2020.  | Data collection |
| Catrin Eames |  | Supporting work exploring the psychological and social impact of COVID-19. My work is related to protective (as well as the negative factors) related to suicide prevention and wellbeing, as well as health and social inequalities that exacerbate discrepancy in mental health outcomes. Working with mindfulness hub in MerseyCare  | ongoing |
| Helen Poole |  | Exploring the impact of Covid-19 on the psychological wellbeing of oncology health care professionals. A short (6 months) qualitative project with staff at all levels. With CCC and UoL  | Application submitted to CCCs internal scheme for rapid response projects on Covid-19 |
| Helen PooleRachel Tarling |  | Dis-CoV-er: A non-randomised cohort study during the SARS-CoV-2 pandemic to understand viral exposure and handling by cancer patients. Helen Poole and Rachel Tarling from LJMU are providing support with psychological measures on this study which is in development via UoL and LHP. | Under development |

**Faculty of Science**

Pharmacy and Biomolecular Science

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Imran SaleemDarren SextonKehinde Ross | Therapeutics | Pulmonary delivery of peptide-based smart materials used for treatment and prevention of SARS-CoV-2 induced lung injury  | Internal COVID-19 funding  |
| Peter Penson |  | Two COVID-19 research activities through my membership of the International Lipid Expert Panel (ILEP). * Systematic review ‘Risk factors associated with contracting COVID-19, and mortality’ registered here: <https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020175666>
* A set of recommendations regarding the management of individuals with familial hypercholesterolaemia (FH) during COVID-19 (Joint ILEP / FH Europe).
 | Ongoing collaborative research |

Sports and Exercise Sciences

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Paula Watson Anton Wagenmakers |  | Home-based PA intervention for adolescent girls  | Part of existing PhD research (Emma Cowley) |
| Dick Thijseen Ian Davies &Fatima Perez de Heredia (BES)Claire Stewart  | Cardiac rehabilitation | Investigating the feasibility of an intervention based on a high-protein Mediterranean-style diet and resistance exercise, alone and in combination, on lean body mass and cardiometabolic health. It consisted of a pilot randomised controlled trial (RCT), combined with focus groups in order to identify potential acceptability, affordability and adherence challenges. Due to Covid-19 restrictions, the pilot RCT will need to be postponed, and modifications have been introduced to conduct the feasibility study online, collecting participants’ opinions on our proposed intervention protocols, and adding questions regarding how Covid-19 restrictions are impacting on their eating and exercise habits, and how they perceive that our suggested dietary and exercise protocols could be implemented under the current circumstances. | Feasibility study funded by the NHS Liverpool Clinical Commissioning Group. |
| Costis Maganaris |  | Participated in publication of a position-point paper on the impact of forced sedentarism due to COVID-19 on neuromuscular, cardiovascular and metabolic health. Importantly, recommendations were also made for practical and effective exercise and nutritional countermeasures.  | The paper has been published in the latest issue of the European Journal of Sport Science, [https://doi.org/10.1080/17461391.2020.1761076](https://ljmu.us18.list-manage.com/track/click?u=a27fb1753e29f6992631e8c35&id=12e5695d3a&e=b6fe2c8029) |

Biological and Environmental Sciences

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Richard Webster | Agriculture and farming, Climate change, Environment | Virus transmission on plant food produce (external partnership) | Bid development |
| Fatima Perez de HerediaIan Davies |  | We are supervising the PGR student Richie Kirwan on the project “A high-protein Mediterranean diet and resistance training on the amelioration of cardiometabolic risk markers in cardiac rehabilitation patients with sarcopenic obesity. The PRiME Study”. This project is linked to the feasibility study described above (1), as it included a pilot RCT on cardiac rehabilitation patients with sarcopenic obesity, plus an evaluation of the prevalence of sarcopenic obesity in cardiac rehabilitation patients. As with the LCCG-funded feasibility study, it will not be possible to conduct any research that involves recruitment of participants for interventions, so the adapted online protocol will ensure the student has the adequate research experience and data for his PhD. Additionally, the study proposal described in 2) constitutes an additional contingency plan to enhance the postgraduate research experience for Richie | Existing PGR project (Richie Kirwan) |

**Faculty of Engineering and Technology**

| **Key contact(s)** | **School** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- | --- |
| Ian JenkinsonTouraj Ehtezazi (PBS) | MME |  | A technical study to enable dental practices to develop and implement measures to minimise or potentially eliminate patient and dental staff exposure to Coronavirus Covid-19 | LJMU COVID19 funding |
| Thanh Nguyen  | MME |  | Simulation research to investigate and optimise social distancing in public transport in Liverpool City Region. Collaborating with Merseytravel, Merseyrail, LCR Combined Authority | LJMU COVID19 funding |
| Steve Longmore Serge Wich | ARI |  | Tourism, great apes, and COVID-19 | LJMU GCRF funding |
| Zaili Yang, Christos Kontovas Chia-Hsun Chang | MME |  | Emergency Logistics Response to Outbreak Risk of COVID-19: Phase 1 Risk Analysis | LJMU GCRF funding |

**Faculty of Arts, Professional and Social Studies**

| **Key contact(s)** | **School** | **Research Focus** | **Summary of research activity / interests** | **Progress to Date** |
| --- | --- | --- | --- | --- |
| Kayla Owen |  |  | Providing solutions to the COVID PPE crisis. Alder Hey are seeking an alternative supply of gowns or equivalent innovative protective garments. The supply chain is significantly disrupted at this moment in time meaning that health care workers are either not using the appropriate PPE, are having to improvise or simply do not have sufficient supply. This work aligns with local priority as a challenge for Alder Hey specifically. Working with Alder Hey Children’s Hospital, Roland Partridge consultant surgeon and surgical lead for COVID19 response. | Providing support |
| Sara ParkerKay Standing |  |  | Periods don’t stop for pandemics and neither do we: Dignity without Danger:  Menstruation research and activism in Nepal: Sociologists Dr Sara Parker and Dr Kay Standing have continued to work on the British Academy/GCRF funder project ‘Dignity without Danger (DWD): Collaboratively analysing stigma and taboos to develop innovative strategies to address menstrual exclusion in Nepal throughout the current COVID-19 pandemic. | Ongoing research |
| Rex Li |  |  | Professor Li has been invited to join the COVID-19 Expert Peer Review Group to assist in reviewing proposals from the UKRI call. |  |
| Kerry Wilson |  |  | Member of UKRI AHRC COVID19 Expert Peer Review GroupMember of the peer review panel for the UKRI MARCH mental health network Plus Funds scheme, which is also encouraging applications in response to the pandemic.Collaboration with National Museums Liverpool, Liverpool City Council Directorate for Health and Social Care and Local Solutions – a Liverpool-based charity supporting carers from disadvantaged communities.  | AHRC COVID-19 rapid response call application under progress |

**Faculty of Business and Law**

| **Key contact(s)** | **School** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- | --- |
| Claire Hannibal |  |  | working with a colleague from Bradford University (who is the in their School of Pharmacy and Applied Sciences) editing a special issue of a supply chain journal on the topic of Covid-19 and supply chain management.  Full details are here and the deadline for submissions is 1st August <https://www.emeraldgrouppublishing.com/journal/scm/learning-covid-19-pandemic-planning-controlling-and-driving-change-greater-resilience>   | Submission August 2020 |
| Rachel Stalker |  |  | The Legal Advice Centre in the School of Law is participating in an online civil liberties clinic. Students will examine the Covid-19 emergency legislation and its application in communities across the UK, in collaboration with the Freedom Law Clinic and Manifesto. The resulting research paper will recommend ways of helping those affected by the legislation (<http://freedomlawclinic.org/civil-liberties-in-the-lockdown>). | Ongoing activity |
| Christina Phillips |  |  | Part of the Government's Covid-19 expert database. Christina’s expertise is data analytics and she’s a member of the Projects, Operations and Workplace Management Research Group. Christina is also presenting at the British Academy of Management Webinar on Business Intelligence vs Business Analytics: How data-driven decision support can help during the Covid-19 crisis.  | Ongoing activity |
| Michelle McManus |  | Criminal justice, behavioural sciences, children and families | Police reporting, recording and responses to domestic abuse in covid-19: how can we best safeguard the silent, repeat and most vulnerable victims in lockdown. | LJMU COVID19 funding |
| Helen Collins and Tricia Harrison |  |  | Co-authored an article on how the Coronavirus shows that key workers need better pay and protection |  |
| Elizabeth Heyworth-Thomas  |  |  | engaged in a Seedcorn funded project with researchers at Birmingham University, working with The National Association for Areas of Outstanding Natural Beauty (NAAONB) and the Department for Environment, Food and Rural Affairs (DEFRA) looking at sustainable entrepreneurial ecosystems and C-19 recovery within AONB areas, nationally. |  |
| Jacqueline Douglas  |  |  | involved in a global collaborative research study into Industry 4.0 and OPEX methodologies.  They are looking particularly at Quality 4.0.  The research is led by Professor Jiju is taking the lead on a systematic literature review of Lean, Six Sigma and Agile literature that discusses Industry 4.0.  Other academics from Italy, Brazil, USA, and India are also involved and it has the support from one of the Professors at the American Society for Quality. They have just circulated their quantitative survey to Quality Professionals. |  |

**Database of COVID19 new ideas and expertise for development/ discussion**

Public Health Institute

* Community resilience projects. Discussions are already underway with local public health commissioners about including projects in this area as part of our annual CHAMPS research contract for 2020/21 ( a local public health research initiative funded by local authorities)
* The impact of social distancing/self-isolation on access to support in vulnerable groups, including people engaged in substance use treatment (including mutual aid/12 step approaches)
* Generation of harms caused by shifts in drug markets – e.g. shortage of drugs of dependence leads to substitution with potentially more harmful substances
* Generation of inequalities caused by shift of interventions/activities online
* Impact on vulnerable populations, PWID and the homeless in particular, as they have high a prevalence of conditions (often multiple co-morbidities) that place them at elevated risk of severe Covid19 illness and death (e.g. COPD); also issues with how they self-isolate and access health care.   The other issue is how this impacts on their access to healthcare for any acute episodes, such as, skin & soft tissue infections, them maintaining ongoing healthcare access for chronic issues, and how they access NSPs, OST, etc..
* How different population groups – e.g. BME, LGBT, etc. - cope with the social distancing and effective lock down.  Current guidance does not reflect diversity of social structures and how many people live their lives. Some groups are likely to be more negatively impacted than others, and their support and resilience mechanism undermined. So exploring resilience and possibly how the messaging is understood by different groups.
* Impact on violence, particularly child maltreatment, intimate partner violence (including sexual) elder abuse, and violence in public spaces (youth, but also more general due to increased vulnerabilities of all [fewer people/police/lone travelling etc.).

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Gordon Hay | Epidemiology | Can offer expertise in data and modelling – epidemiology to COVID projects. desk-based research using publicly available data from the General Medical Council (GMC) on ethnicity and inequality | Looking for collaboration  |
| Conan Leavy |  | Generating actionable evidence for containing the spread of misinformation.  I teach on a Media and Public Health module with an emphasis on health panics and moral panics.  At the moment, I have an idea for a project to assess the association, or lack, between belief in COVID19 myths and conspiracies and actual compliance with social distancing instructions, tracking app uptake and vaccine acceptance | Idea in progress |

Nursing and Allied Health

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Julie Connolly | Survivorship |  | Introduction to LHP |
| Debbie Fitzsimmons | Health Technology | Telemedicine expertise relevant to LHP COVID projects | Discussions underway |
| Robyn Lotto |  | inequalities in health associated with COVID19, either in terms of impact of the disease, or impact of public health interventions. | Research idea |

Psychology

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Lisa Newson | Environment KTP | Understanding lifestyle behaviours in the home (result from covid) focusing on health and community a long term not immediate project  | Bid in prep for September |
| Ashworth; Saini; Eames; McLoughlin; Rosser; Chopra; | The long-term impact of COVID-19 and lockdown on early adolescents’ mental health | A longitudinal, mixed-methods study aiming to identify the risk and protective factors for mental health difficulties among early adolescents associated with: PHASE 1) lockdown (June/July 2020), PHASE 2) post-lockdown reintegration (September), and PHASE 3) longer-term effects (December). We intend to focus on both positive and negative experiences of lockdown, and the impact this will have in the short- and longer-term. | Research idea |
| Davide Bruno | Psychology | Tangential project looking at the best way to order instructions for health campaigns. It is COVID applicable in the sense that it is related to how the public should be asked to do carry out difficult tasks for the greater (or their own) good. | Research idea |
| Francis McGlone | Development of an app to guide social touch during isolation.  | Programming of 25 exercises with descriptors and cartoon, demo. Creating VR/animation of £D body to guide exercises. Adding soothing music to app to guide social touch.  | Research idea |
| Valentina Cazzato | Affective touch and Eating Disorder Patients.  | This study will Investigate how social isolation due to covid-19 has affected patients’ experience of touch and eating behaviour.  | Preparing Ethics Submission |
| Mark Forshaw; Rachel Tarling; Victoria Blickhorn |  | Interview study on experiences of Covid lockdown.  | Idea for funding |
| Catrin Eames |  | Interested in looking at both the short, and importantly the long term impact of COVID-19 for health care staff (post-trauma growth and distress), and vulnerable populations (loneliness, social connection, hopelessness, optimism), and the potential for brief wellbeing interventions (such as adapted mindfulness programmes) in supporting mental health whilst experiencing systemic difficulties. | Research idea |
| Clare Maxwell |  | Impact of Covid-19 on UK breastfeeding advice giving, support and practices: implications for policy and practice  | Research idea |
| Helen PooleAndy Tattersall |  | A prospective study of the long term impact of Covid-19 on oncology health care professionals and delivery of care. Collaboration with Lynda Appleton at CCC | Research idea |

**Faculty of Science**

Pharmacy and Biomolecular Science

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Imran Saleem | Therapeutics / vaccination | Inhaled delivery of drugs or vaccine for COVID-19. In collaboration with Andrew Owen UoL. | research idea - internal, UoL bid |
| Sulaf Assi |  | Understanding the public perception and attitude towards COVID 19 | Research idea/ expertise |
| Fyaz Ismail | Therapeutics | Targeting SARS CoV 2 with unsymmetrical rationally designed quinolines | Research idea |
| Amos Fatokun | Therapeutics | Evidence synthesis and data mining to support re-purposing efforts to identify clinically-used drugs that could treat COVID-19 and predict drugs that could exacerbate COVID-19 in co-morbid situations |  |

Sports and Exercise Sciences

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| David Oxborough |  | How echocardiographic service provision has developed in-tandem with the ongoing COVID-19 pandemic. We are interested in current available resources, impact on staffing, access to specialist equipment including PPE and to develop an understanding of what departmental changes occurred and whether they worked. | Research idea |
| Ian Davies  |  | Cardio rehabilitation during isolation | research ideas |

Biological and Environmental Sciences

| **Key contact(s)** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- |
| Sarah Percival |  | Understanding, analysing and communicating vulnerability, resilience and risk to hazards | Research idea |
| Nicola Koyama  | Behavioural science |  |  |

**Faculty of Engineering and Technology**

| **Key contact(s)** | **School** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- | --- |
| Liang Men | CS |  | The Virtual University - examining the use of virtual environments for supporting teaching and learning | Research idea |
| Ivan Olier-CaparrosoPaulo LisboaDavid Oxborough | APM |  | Impact of COVID-19 on cardiovascular disease and stroke | Research idea |
| Martin Sharp | GERI |  | Far UV-C sanitisation of the Coronavirus | Research idea |
| Ivo SiekmannRobert Wilkinson | APM |  | Data driven mechanistic modelling of COVID-19 | Research idea |
| Andy Shaw | BUE | Sensors | Hand held sensor for Coronovirus detection we have developed a hand held sensor for the detection of pesticides on building fabrics in India, collaborating with LSTM. The sensor is simply placed against a wall and gives an indication of whether the pesticide is present and to what concentration (under, within limits or over) in 10 seconds. This technique has also been developed to identifying specific biohazards supplied by DSTL (sorry I can't disclose which). So we are putting forward a combination of these techniques and methods to identify the presence of Covid 19 on the surface of materials (we can penetrate the surface of the material which means we can identify it on absorbent materials such as wood or cardboard where optical techniques fail). The technique can be tuned to specific chemical elements, hence the request to be able to test the sensor in the presence of the virus and maybe further develop it to isolate Covid 19 from other natural contaminants. I | Research idea – discussions on application of research to COVID with LHP |
| Princy Johnson | EEE |  | To design/implement a pilot sensor system for a quick testing/monitoring of the health parameters of individuals living in isolated/remote regions and analyse the data in real-time. This data could help the COVID-19 response team to make appropriate decisions and feedback advisory instructions to the individuals and communitiesTo model the impact of health divide using statistical and empirical data collected from a range of participant groups, and identify critical parameters that contribute to and influence the health divide. This study will be especially useful in the current COVID-19 situation to help develop long-term strategies for our healthcare system.  | Research ideas  |
| Christian Mathews | MME | Transport, ports, maritime |  |  |
| Mark Taylor | CS | Fire prevention | Collaborates with Merseyside Fire and Rescue Services  |  |
| Alex Akinbi | CS | Cyber security | COVID-19 outbreaks control with digital contract tracing |  |

**Faculty of Arts, Professional and Social Studies**

| **Key contact(s)** | **School** | **Research Focus** | **Summary of research activity / interests** | **Progress to Date** |
| --- | --- | --- | --- | --- |
| Anne-Marie Bartlett |  |  | Voice, inclusion, and the potential for Graphic Design to bring about social change. 1. Responding to the COVID-19 economic (after)shocks: Developing learning and resources to strengthen the resilience of the Liverpool City Region economy
2. Generating actionable evidence for containing the spread of misinformation
3. Input of Design capacity to child health/pregnancy-related projects require
 | Research ideas |
| Rob MacDonald |  |  | Therapeutic Art Group TAG working with recovering Mental patients. Rob is a Design Champion by appointment to the NHS Trust. He volunteers for MerseyCare NHS Foundation Trust who are the main supporters of Mental Health Services in The City Region.  |  |
| Sue Kay Flowers |  |  | children's experience of parental separation and divorce. The current 'lockdown' situation is unprecedented; families being together 24 hours a day is placing considerable strain on family relationships, impacting on individual's mental and emotional well-being. Parental conflict is an increasing issue for some families. These issues are likely to impact more significantly on the lives of children of separated parents. An increase in the incidence of parental separation is likely to be one of the long term impacts of the outbreak. My research is relevant to supporting children and families adjusting to the changes parental separation brings. | Research ideas |
| Dave Putwain | EDU | Education |  |  |

**Faculty of Business and Law**

| **Key contact(s)** | **School** | **Research Focus** | **Summary of research activity**  | **Progress to Date** |
| --- | --- | --- | --- | --- |
| Laura Bolton |  | Criminal Justice, Emergency services, police powers and public order |  |  |